

Deloitte.

Ministry of Education
Effectiveness & Efficiency
Review

Southwestern Ontario Student
Transportation Services

E&E Phase 4 Review

October 2010

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The English version is the official version of this report. In the situation where there are differences between the English and French versions of this report, the English version prevails.

À noter que la version anglaise est la version officielle du présent rapport. En cas de divergences entre les versions anglaise et française du rapport, la version anglaise l'emporte.

Executive Summary

This report details the findings and recommendations of an Effectiveness and Efficiency Review (“E&E Review”) of Southwestern Ontario Student Transportation Services (hereafter “STS” or “the Consortium”) conducted by a review team selected by the Ministry of Education (hereafter the “Ministry”). The E&E Review evaluates four areas of performance – Consortium Management, Policies and Practices, Routing and Technology, and Contracting – to determine if current practices are reasonable and appropriate; to identify whether any best practices have been implemented; and to provide recommendations on areas of improvement. The evaluation of each area is then used to determine an overall rating for the Consortium that will be used by the Ministry to determine any in-year funding adjustments that may be provided.

The review of Consortium Management found that the Consortium is a separate legal entity that uses a governance structure with clear lines of reporting between all relevant parties to ensure accountability and transparency. It has also managed risks by having appropriate contracts and agreements in place to clearly define relationships. However, improvements could be made by developing a strategy for declining enrolment, modifying purchasing policies to incorporate the use of competitive procurement, and adjusting its operator payment process so that the operators prepare their invoice independent of input from the Consortium.

The Consortium has developed and implemented Policies and Practices that capture all of the elements required for a successful implementation; these policies and practices have also been implemented in a pragmatic manner. However, the clarity of the supporting documentation could be improved in order to minimize the possibility of misunderstanding, misapplication, or misinterpretation; this is particularly true as it applies to service eligibility and the interplay that currently exists between Consortium policies and those of its Member Boards.

The Consortium’s Routing and Technology use is extensive and impressive and all of the key elements are in place to promote a culture of continuous improvement. Additionally, the Consortium’s efforts to improve system effectiveness and efficiency have yielded excellent results with high levels of capacity utilization and service effectiveness. A critical opportunity for improvement would be the coordination of school bell times across the service area served by the Consortium.

The review of the Consortium’s Contracting practices found that the Consortium uses generally standard contract structures with appropriate clauses and safety requirements and has recently implemented a comprehensive monitoring process. The Consortium’s approach to keeping operators informed of upcoming changes to contract clauses and procurement processes is commendable. The Consortium should continue with its plans to simplify the operator compensation formula and continuing its work on implementing competitive procurement for operator contracts, including the development and communication of a detailed implementation plan. The Consortium has laid an excellent foundation for its Contracting practices and with the passage of time, will undoubtedly be able to demonstrate the effective implementation of its policies and plans.

As a result of this review of current performance, the Consortium has been rated **Moderate-High**. The Consortium has made remarkable progress in the last year since the restructuring of the Member Boards. The results achieved in this short timeframe demonstrate what is possible with a cohesive team, strong leadership, a “can do” attitude and the support and cooperation of Member boards and all stakeholders. The entire Consortium deserves a huge round of applause for their efforts and the resulting accomplishments. Based on this evaluation, the Ministry will provide additional transportation funding to narrow the 2010-2011 transportation funding gap for the London District Catholic School Board (“LDCSB”) and the Thames Valley District School Board (“TVDSB”) as determined by the formula in Table 1. The detailed calculations of disbursements are outlined in section seven of this report and summarized below.

| | |
|---------------------------------------|------------|
| London District Catholic School Board | \$ 0 |
| Thames Valley District School Board | \$ 959,873 |

(Numbers will be finalized once regulatory approval has been obtained.)

1 Introduction

1.1 Background

1.1.1 Funding for student transportation in Ontario

The Ministry provides funding to Ontario's 72 School Boards for student transportation. Under Section 190 of the *Education Act* (Act), School Boards "may" provide transportation for pupils. If a School Board decides to provide transportation for pupils, the Ministry will provide funding to enable the School Boards to deliver the service. Although the Act does not require School Boards to provide transportation service, all School Boards in Ontario provide service to eligible elementary students and most provide service to eligible secondary students. It is a School Board's responsibility to develop and maintain its own transportation policies, including safety provisions.

In 1998-1999, a new education funding model was introduced in the Province of Ontario outlining a comprehensive approach to funding School Boards. However, a decision was made to hold funding for student transportation steady, on an interim basis, while the Ministry worked to develop and implement a new approach. From 1998-1999 to 2010-2011, an increase of over \$267 million in funding has been provided to address increasing costs for student transportation, such as fuel price increases, despite a general decline in student enrolment.

1.1.2 Transportation reform

In 2006-07, the government began implementing reforms for student transportation. The objectives of the reforms are to build capacity to deliver safe, effective, and efficient student transportation services, achieve an equitable approach to funding, and reduce the administrative burden of delivering transportation, thus allowing School Boards to focus on student learning and achievement.

The reforms include a requirement for consortium delivery of student transportation services, effectiveness and efficiency reviews of transportation consortia, and a study of the benchmark cost for a school bus incorporating standards for safe vehicles and trained drivers.

1.1.3 The formation of school transportation consortia

Ontario's 72 School Boards operate within four independent systems:

- English public;
- English separate;
- French public; and
- French separate.

As a result, a geographic area of the province can have as many as four coterminous School Boards (i.e., Boards that have overlapping geographic areas) operating schools and their respective transportation systems. Opportunities exist for coterminous School Boards to form a consortium and therefore deliver transportation for two or more coterminous School Boards in a given region. The Ministry believes in the benefits of consortia as a viable business model to realize efficiencies. This belief was endorsed by the Education Improvement Commission in 2000 and has been proven by established consortium sites in the province. Currently, the majority of School Boards cooperate to some degree in delivering transportation services. Cooperation between School Boards occurs in various ways, including:

- One School Board purchasing transportation service from another in all or part of its jurisdiction;
- Two or more coterminous School Boards sharing transportation services on some or all of their routes; and
- Creation of a consortium to plan and deliver transportation service to students of all partner School Boards.

Approximately 99% of student transportation service in Ontario is provided through contracts between School Boards or transportation consortia and private transportation operators. The remaining 1% of service is provided using Board-owned vehicles to complement services acquired through contracted private transportation operators.

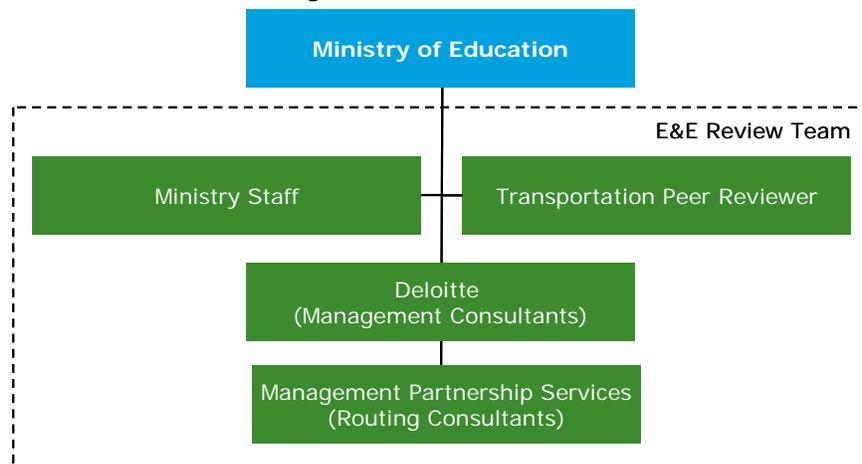
1.1.4 Effectiveness and Efficiency Review

According to the Ministry consortium guidelines, once a consortium has met the requirements outlined in memorandum SB: 13, dated July 11, 2006, it will be eligible for an E&E review. This review will be conducted by the E&E Review Team who will assist the Ministry in evaluating Consortium Management; Policies and Practices; Routing and Technology; and Contracts. These reviews will identify best practices and opportunities for improvement and will provide valuable information that can be used to inform future funding decisions. The Ministry has established a multi-phase approach to review the performance of consortia (collectively the “E&E Reviews”) across the province.

1.1.5 The E&E Review Team

To ensure that these reviews are conducted in an objective manner, the Ministry has formed a review team (see Figure 1) to perform the E&E Reviews. The E&E Review Team was designed to leverage the expertise of industry professionals and management consultants to evaluate specific aspects of each consortium site. Management consultants were engaged to complete assessments on Consortium Management and Contracts. Routing consultants were engaged to focus specifically on the acquisition, implementation, and use of routing software and related technologies and on policies and practices.

Figure 1: E&E Review Team



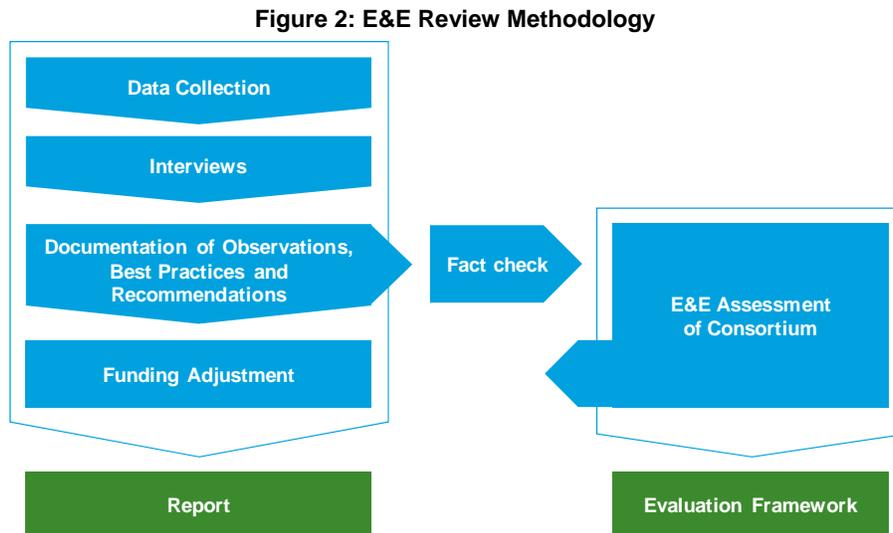
1.2 Scope of Deloitte Engagement

Deloitte was engaged to lead the Team and serve as the management consultants on the E&E Review Team. Deloitte’s overall role is as follows:

- Lead the planning and execution of E&E Reviews for each of the 18 transportation consortia to be reviewed in Phases Three and Four (currently in phase 4);
- At the beginning of each E&E Review, convene and moderate E&E Review Team planning meetings to determine data required and availability prior to the review;
- Review consortium arrangement, governance structures and contracting procedures;
- Incorporate the results of the routing and technology and policies and practices reviews completed by MPS into the final report; and
- Prepare a report for each consortium that has been subject to an E&E Review in Phases three and four. The target audience for the report will be the Ministry, the consortium, and its Member School Boards. Once finalized, each report will be released to the consortium and its Member School Boards.

1.3 Methodology Used to Complete E&E Review

The methodology for the E&E Review is based on the six step approach presented in Figure 2 and elaborated on below:



A site review report that documents the observations, assessments and recommendations is produced at the end of a site review. The Evaluation Framework has been developed to provide consistency and details on how the Assessment Guide was applied to reach an Overall Rating of each site.

1.3.1 Step 1 – Data collection

Each consortium under review is provided with the E&E Guide from the Ministry of Education. This guide provides details on the information and data the E&E Review Team requires the consortium to collect, organize and provide.

Data is collected in four main areas:

1. Consortium Management;
2. Policies and Practices;
3. Routing and Technology; and
4. Contracts.

1.3.2 Step 2 – Interviews

The E&E Review Team identifies key consortium staff, outside stakeholders and key policy makers with whom interviews are conducted to further understand the operations and key issues impacting a consortium's delivery of effective and efficient student transportation services.

1.3.3 Step 3 – Documentation of Observations, Best Practices and Recommendations

Based on data collected and interviews conducted, the E&E Review Team documents their findings under three key areas:

- Observations that involve fact based findings of the review, including current practices and policies;
- Best Practices used by the consortium under each area; and

- Recommendations for improvements based on the Assessment Guide. Figure 3 below provides a summary of the key criteria used in the Assessment Guide to determine the effectiveness and efficiency of each consortium.

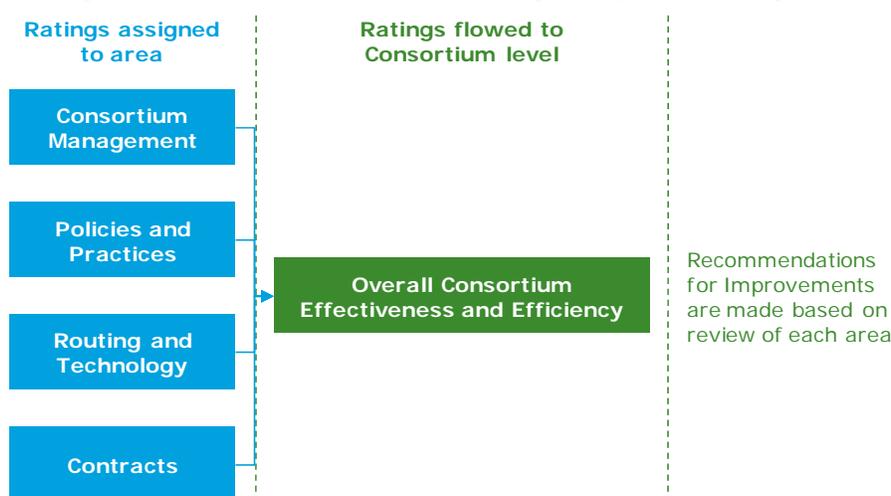
Figure 3: Criteria for an Effective and Efficient consortium

| Consortium management | Policies and Practices | Routing and Technology | Contracts |
|--|---|--|---|
| <ul style="list-style-type: none"> • Distinct entity focused on providing student transportation services for member boards • Well defined governance and organizational structure with clear roles and responsibilities • Oversight body exists with the mandate to provide strategic directions to Consortium management on the provision of safe, effective and efficient transportation service to support student learning • Management has communicated clear goals and objectives of the Consortium and these are reflected in the operational plan • The Consortium takes a comprehensive approach to managing human resources • Well established accountability framework reflected in the set up and operation of the Consortium including documentation of terms in a Consortium Agreement • Operations are regularly monitored and performance continually improved • Financial processes ensure accountability and transparency to member boards • A budgeting process is in place ensuring timely preparation and monitoring of expenses • All of the Consortium's key business relationships are defined and documented in contracts • Governance committee focuses only on high level decisions • Organizational structure is efficient and utilizes staff appropriately • Streamlined financial and business processes • Cost sharing mechanism is well defined and implemented • The Consortium has appropriate, documented procedures and confidentiality agreements in place governing the use of student data and ensuring compliance with <i>Freedom of Information and Privacy</i> legislation | <ul style="list-style-type: none"> • Safety programs are established for all students using age appropriate training tools • Development of policies is based on well defined parameters dictated by the strategic goals of the governance structure and Consortium Management operating plans • A mechanism is defined to allow for regular review and consideration of policy and practice changes to address environmental changes • Established procedures allow for regular feedback on the impact that current and proposed policy and procedural changes would have on costs, safety and service levels • Regular monitoring and evaluation of policy expectations is conducted to ensure their continued relevancy and service impacts • Enforcement procedures are well defined and regularly executed with timely follow-up • Harmonized transportation policies incorporate safety, operational and cost considerations • Position-appropriate delegation of decisions to ensure the efficiency of decision making • Operational alternatives to traditional practices are considered and implemented where reasonable and appropriate • Service levels are well defined, considerate of local conditions, and understood by all participating stakeholders • Policy and practice modifications for students with special needs are considered in terms of both the exceptionality and its service and cost impacts | <ul style="list-style-type: none"> • Transportation management software has been implemented and integrated into the operational environment • Key underlying data sets (e.g., student and map data) are regularly updated: • Responsibility and accountability for the updates is clearly defined and performance is regularly reviewed • Coding structures are established to facilitate scenario modeling and operational analysis of designated subgroups of students, runs, schools, etc. • Procedures are in place to use software functionality to regularly evaluate operational performance and model alternatives to traditional practices • Disaster recovery plans and back up procedures are established, performed regularly, and tested • Operational performance is regularly monitored through KPI and reporting tools are used to distribute results to appropriate parties • Technology tools are used to reduce or eliminate manual production and distribution activities where possible in order to increase productivity • Training programs are established in order to increase proficiency with existing tools • Route planning activities utilize system functionality within the defined plan established by Consortium management | <ul style="list-style-type: none"> • Contracts exist for all service providers, including taxi, boat and/or municipal transit services and parent drivers • Contracts are structured to ensure accountability and transparency between contracted parties • All operator contracts are complete with respect to recommended clauses • Compensation formulae are clear • Operator contracts are in place prior to the start of the school year • Procurement processes are conducted in line with the Consortium's procurement policies and procurement calendar • The Consortium has laid the groundwork for, or is actively using, competitive procurement processes • Proactive efforts are made to ensure operator contract compliance and legal compliance • The Consortium collects and verifies information required from operators in contracts • The Consortium actively monitors and follows up on operator on-the-road performance using random, documented route audits or their equivalent • The Consortium avoids using School Board owned vehicles |

1.3.4 Step 4 and 5 – E&E assessment of consortium and site report

The Assessment Guide was developed to enable the E&E Review Team to provide each consortium that undergoes an E&E Review with a consistent, fair, and transparent method of assessment. The Assessment Guide is broken down along the four main components of review (i.e., Consortium Management, Policies and Practices, Routing and Technology, and Contracts) and, for each, illustrates what constitutes a specific level of effectiveness and efficiency (refer to Figure 4 for diagram of process).

Figure 4: Assessment of consortia - Ratings Analysis and Assignment



The Evaluation Framework provides details on how the Assessment Guide is to be applied, including the use of the Evaluation Work Sheets, to arrive at the final Overall Rating. The E&E Review Team then compiles all findings and recommendations into an E&E Review Report (i.e., this document).

1.3.5 Funding adjustment

The Ministry will use the results of the E&E Reviews and the cost benchmark study to inform any future funding adjustments. Only School Boards that have undergone E&E Reviews are eligible for a funding adjustment. Table 1 below illustrates how the Overall Rating will affect a Board's transportation expenditure-allocation gap.

Table 1: Funding Adjustment Formula

| Overall Rating | Effect on deficit Boards ¹ | Effect on surplus Boards ¹ |
|----------------|---|--|
| High | Reduce the gap by 100% (i.e. eliminate the gap) | No in-year funding impact; out-year changes are to be determined |
| Moderate-High | Reduce the gap by 90% | Same as above |
| Moderate | Reduce the gap by 60% | Same as above |
| Moderate-Low | Reduce the gap by 0% | Same as above |
| Low | Reduce the gap by 0% | Same as above |

The Ministry has announced, through memorandum 2009:B2 dated March 27, 2009, that effective from the 2009-2010 school year, in addition to the funding adjustments made based on the overall E&E rating, for any consortium not achieving a high rating in Routing and Technology, a negative adjustment of one percent to a Board's transportation allocation will be made to recognize potential efficiencies through ongoing routing optimization and technology use. To acknowledge sites whose systems are already operating in an efficient manner, the adjustment will only apply to School Boards that have not achieved a "high" rating in Routing and Technology from the Effectiveness and Efficiency reviews. School Boards that achieve a "high" rating in the Routing and Technology area in future reviews will be exempt from the reduction in the subsequent year.

1.3.6 Purpose of report

This Report serves as the deliverable for the E&E Review conducted on the Consortium by the E&E Review Team during the week of October 4, 2010.

1.3.7 Materials relied upon

Refer to Appendix 3 for a list of documents that the E&E Review Team relied upon for their review. These documents were used in conjunction with interviews with key Consortium staff, outside stakeholders, and key policy makers to arrive at the assessment and rating of the Consortium.

1.3.8 Limitations on the use of this report

The purpose of this Report is to document the results of the E&E Review of the consortium. The E&E Review is not of the nature or scope so as to constitute an audit made in accordance with generally accepted auditing standards. Therefore, as part of this E&E Review, Deloitte has not expressed an opinion on any financial statements, elements, or accounts to be referred to when reporting any findings to the Ministry. Additionally, procedures used by the E&E Review Team are not intended to disclose defalcations, system deficiencies, or other irregularities.

¹ This refers to Boards that have a deficit/surplus on student transportation (see Section 7 – Funding Adjustments)

2 Consortium Overview

2.1 Consortium Overview

Southwestern Ontario Student Transportation Services was incorporated as a separate legal entity in September 2008, and was restructured on July 1, 2010 to reflect the departure of two school boards - Conseil scolaire de district du Centre-Sud-Ouest and Conseil scolaire de district des écoles catholiques du Sud-Ouest. As of July 1, 2010, the Consortium provides student transportation services for its two Member Boards: London District Catholic School Board and the Thames Valley District School Board.

The Consortium provides transportation services to more than 46,000 elementary and secondary school students using over 1,000 school buses and specialized vans. The service area covers 7,278 square kilometres and includes 220 elementary and secondary schools. These transportation services are provided by ten different bus operators that service the Consortium's 1,081 routes.

The geographic area covered by the Consortium is a combination of urban and rural areas, with the service area encompassing Elgin County, Middlesex County, Oxford County, and the City of London.

Table 2 and Table 3 below provide a summary of key statistics and financial data of each Member Board:

Table 2: 2009-10 Transportation Survey Data²

| | LDCSB | TVDSB | Total Consortium |
|--|---------------|---------------|------------------|
| Number of schools served | 58 | 187 | 245 |
| Total general transported students | 12,086 | 21,300 | 33,386 |
| Total special needs ³ transported students | 137 | 1,224 | 1,361 |
| Total wheelchair accessible transportation | 38 | 185 | 223 |
| Total specialized program ⁴ transportation | 1,363 | 3,873 | 5,236 |
| Total courtesy riders | 95 | 640 | 735 |
| Total hazard riders | 658 | 3,072 | 3,730 |
| Total students transported daily | 14,377 | 30,294 | 44,671 |
| Total public transit riders | | 105 | 105 |
| Total students transported including transit riders | 14,377 | 30,399 | 44,776 |
| Total contracted full and mid-sized buses ⁵ | 217 | 454 | 671 |
| Total contracted mini buses | 10 | 23 | 33 |
| Total contracted school purpose vehicles ⁶ | 11 | 196 | 207 |
| Total contracted PDPV | 23 | 108 | 131 |
| Total contracted taxis | 2 | 2 | 4 |
| Total number of contracted vehicles | 262 | 784 | 1,046 |

Table 3: 2009-2010 Financial Data⁷

| | LDCSB | TVDSB |
|----------------------------------|---------------|----------------|
| Allocation | \$12, 059,781 | \$32, 590,125 |
| Net expenditures | \$11, 413,252 | \$33, 656,651 |
| Transportation surplus (deficit) | \$ 646,529 | \$(1, 066,526) |

² Data reported in this section of the report may be inconsistent with data presented in other sections due to the different timing of data collection. Data reported in this section of the report includes noon-hour transportation.

³ Includes students requiring special transportation such as congregated and integrated special education students who require dedicated routes and/or vehicles; students who must ride alone; students who require an attendant on the vehicle

⁴ Includes students transported to French Immersion, magnet and gifted programs, students with special needs who are transported to specialized programs are captured as special needs transported students.

⁵ Includes full-sized buses, mid-sized buses, full-sized buses adapted for wheelchair use and mid-sized buses adapted for wheelchair use; all vehicle counts are rounded to the nearest whole number.

⁶ Includes school-purposed vans, mini-vans, and sedans.

⁷ 2009-2010 allocations and expenditures based on Ministry data – Financials for 2009-2010

3 Consortium Management

3.1 Introduction

Consortium Management encompasses the management of the entire organization providing student transportation services. The analysis stems from a review of the four key components of Consortium Management:

- Governance;
- Organizational Structure;
- Consortium Management; and
- Financial Management.

Each component has been analyzed based on information provided by the Consortium and from information collected during interviews. The analysis included an assessment of areas requiring improvement that were informed by a set of known best practices identified during previous E&E Reviews. These results are then used to develop an E&E assessment for each component. The E&E assessment of Consortium Management for the Consortium is as follows:

Consortium Management – E&E Rating:

Moderate-High

3.2 Governance

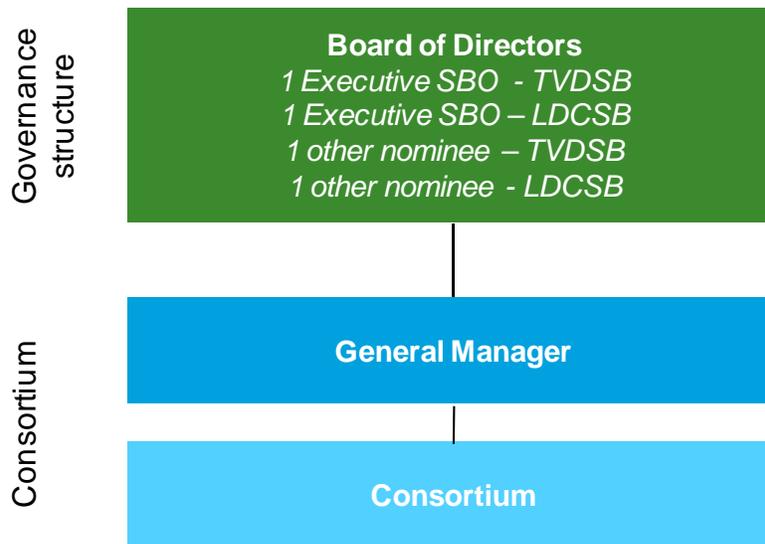
Governance refers to the way in which an organization is directed and controlled. Establishing administrative structures and processes that facilitate, monitor, measure and improve effective business management are primary responsibilities of a governance structure. Three key principles for an effective governance structure are: accountability, transparency, and the recognition of stakeholders. In order to respect these three principles, it is important that the governance body of the organization be independent of the team responsible for the day-to-day operations of the organization.

3.2.1 Observations

3.2.1.1 Governance structure

The Consortium's governance structure is outlined in the Corporate Consortium Membership Agreement and the Consortium's bylaws. These documents were updated on July 1, 2010 to reflect the departure of two school boards (Conseil scolaire de district du Centre-Sud-Ouest and Conseil scolaire de district des écoles catholiques du Sud-Ouest) from the Consortium. Each Member Board nominates two individuals to the Consortium's four-person Board of Directors, and the Board of Directors then appoints the Consortium's General Manager; the governance structure is illustrated below:

Figure 5: Consortium Governance Structure



The Corporate Consortium Membership Agreement and the Consortium's bylaws outline the roles and responsibilities of the Consortium's governance structure, and delineate the Board of Directors as having primary responsibility for approving:

- The Corporate Consortium's annual operating, transportation and capital budgets, which will include, without limitation, staffing levels;
- An annual plan setting out the proposed service delivery efficiencies and anticipated cost savings for each Member Board for the coming year, and a year-end report comparing actual performance to planned performance for the year and publication of the same;
- The appointment of the General Manager of the Consortium and the establishment of the General Manager's roles and responsibilities;
- Any contracts to be entered into by the Corporate Consortium; and
- Any communications by the Corporate Consortium to the Member Boards' Board of Trustees.

The membership agreement explicitly states that the day-to-day operations of the Consortium shall be administered by the General Manager. In February 2009, the Board of Directors formally approved the roles and responsibilities of the General Manager and noted that the General Manager will be responsible for planning, organizing and directing all activities of the Consortium.

The Board of Directors is required to meet at least three times a year and generally meets once per month. Meeting agendas are set in advance of the meeting and minutes are taken during the meeting; the meeting minutes are also signed and ratified.

The Corporate Consortium Membership Agreement indicates that the Chairmanship of the Board will alternate between the nominees of the Member Boards, and the bylaws delineate that all questions must be voted on and decided by unanimity of votes.

Confidentiality agreements between the Consortium and its Member Boards exist and have been signed.

3.2.1.2 Board level governance and arbitration clause

The membership agreement includes a dispute resolution clause that states that the dispute will first be referred to the Board of Directors for amicable resolution and then to the Member Boards' Directors of Education. If the dispute cannot be resolved, it will then be referred to a mediator jointly selected by the Member Boards, and then to a single arbitrator selected by the Member Boards. All decisions of the arbitrator shall be final and binding, with costs of arbitration to be awarded by the arbitrator.

3.2.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Structure of the governance structures

The Consortium's governance structures have equal representation from each Member Board in terms of membership. Equal representation promotes fairness and equal participation in decision making and ensures the rights of each Board are considered equally.

Relationship with the Board of Directors

The Board of Directors works closely with the General Manager while at the same time respecting a clear delineation between the day to day management of the Consortium and high level policy and strategic matters that are handled at the Board level. The positive working relationship between the two Boards and the Consortium allows for open communication amongst all parties.

Meetings of the governance structures

The Consortium's governance structures are required to meet a minimum number of times per year and utilize formal agendas, and meeting minutes are taken, ratified and signed. This ensures that the Consortium is open, accountable and transparent to its stakeholders.

Dispute resolution

A Member Board level dispute policy is in place between the Member Boards. The policy is an effective mechanism to protect the rights of Member Boards and will also help to ensure that decisions made represent the best interests of parties involved. To date, the Member Boards have resolved all questions and issues without having to use this dispute mechanism policy.

3.3 Organizational structure

An optimized organizational structure can promote effective communication and coordination which will enable operations to run more efficiently. The roles and responsibilities within the organization should be well defined. This will lead to operational efficiencies by ensuring tasks are not being duplicated and issues raised can be addressed effectively by Consortium management. Ideally, the organization is divided functionally (by department and/or area); all core business functions are identified; and there is an appropriate allocation of general management and operational responsibility.

3.3.1 Observations

3.3.1.1 Entity Status

The Consortium was incorporated as a separate legal entity (non-share Capital Corporation) on September 29, 2008 and resides in a separate office from the Member Boards. The Consortium was incorporated with the objective to facilitate and advance education in the elementary, secondary and post-secondary, public and private schools systems in the Province of Ontario by:

- Providing student transportation to and from elementary, secondary and post-secondary, public and private schools systems in the Province of Ontario;
- Developing, supporting, implementing and advancing educational and training programmes and innovative projects which will promote the cause of publicly-funded education and training generally, and education and training specifically, and/or benefit communities;
- Maintaining and operating non-profit education, employment, training and support centres in the community;
- Making or awarding gifts or awards to individuals, organization, corporations, or institutions for accomplishment in, and to assist in the furtherance and promotion of, the field of education and training; and
- Such other complementary activities which will further these objectives.

The Letters Patent, Corporate Consortium Membership Agreement, and Consortium Bylaws form the Consortium's foundational documents. Each of these documents is described in the next section.

3.3.1.2 Consortium formation and agreement

Letters Patent

The Letters Patent, submitted to the Ontario Ministry of Government Services, establish the Consortium's status as a non-share capital corporation. The document describes the objectives of the organization and outlines specific provisions related to the Consortium's powers and abilities.

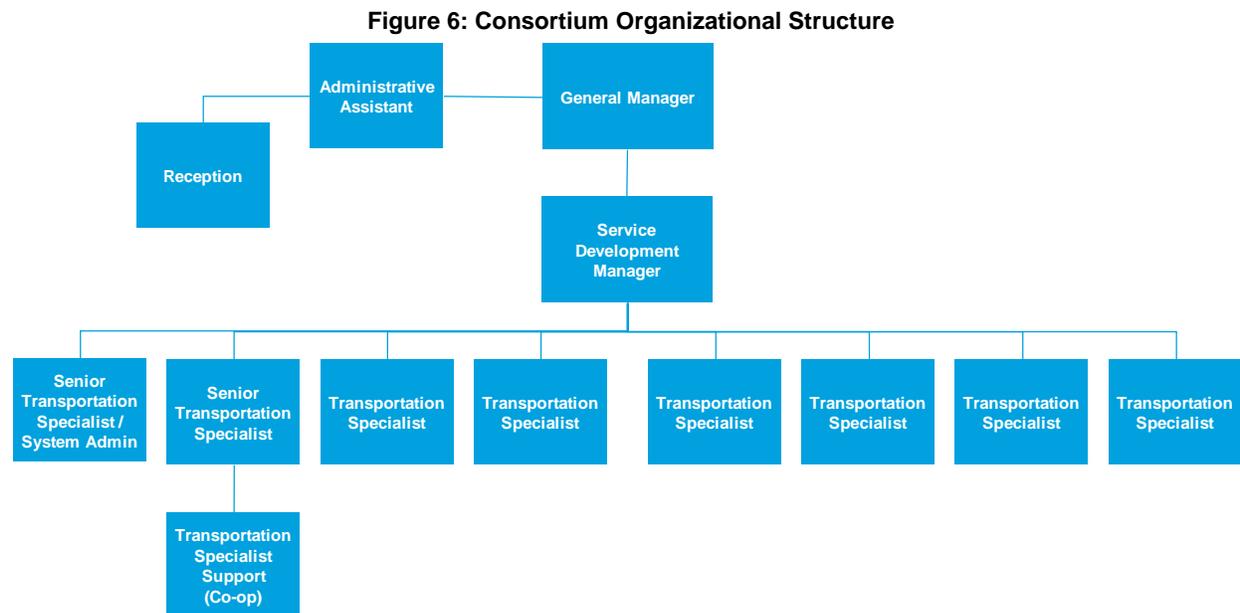
Membership Agreement and Consortium Bylaws

The original membership agreement and bylaws were revised on July 1, 2010 to reflect the departure of two school boards; the revised membership agreement and bylaws establish the relationship between the two Member Boards and details aspects of the Consortium's structure and operations. They speak to, among other things:

- The Consortium's purpose: to manage and administer all home to school transportation (including late buses), school to school transportation, and special needs transportation. However, charter transportation for school-based activities will be managed by the respective Member Boards;
- The Consortium's governance structure: the membership; the roles and responsibilities of the Board of Directors; and the voting structure;
- The Consortium's finances: the cost-sharing arrangements between the Member Boards; and
- Other items related to: co-operation between the Member Boards, insurance requirements, early termination, amalgamation, dispute resolution, and indemnification.

3.3.1.3 Organization of entity

One employee (a Transportation Specialist) is currently on secondment from London District Catholic School Board; the Consortium employs all other employees. The Consortium's organization chart is illustrated below:



Job descriptions that outline each position's specific responsibilities, decision-making authorities, required qualifications, skills, and reporting / delegation authority are available.

3.3.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Separate Legal Entity

The Consortium is incorporated as a non-profit corporation and is located in a different building from its Member Boards. This structure provides the Consortium with independence in terms of managing its daily

operations; ensures that the structure and mandate of the Consortium remain consistent despite potential changes at the Member Board level (i.e., changes in trustees, Board members, etc.); and also provides contractual benefits to the Consortium. As a separate legal entity, the Consortium can enter into binding legal contracts, for all services purchased, most importantly with bus operators, and as such is limiting liability to the Consortium and in turn, limiting liability to Member Boards.

Membership Agreement Clauses

The Membership Agreement, which acts as the legal document governing the Consortium, contains sufficient detail on key provisions such as cost sharing, dispute resolutions, oversight, and the role of the Consortium. This is important in that it clearly defines the relationship between the Member Boards in the delivery of safe, effective and efficient student transportation services.

Organization of Entity

The Consortium's organizational structure reflects clear lines of reporting between staff and Consortium management. This structure can help to increase effectiveness by creating an appropriate system by which issues can be escalated to Consortium management.

Job descriptions

Clear and detailed job descriptions are defined for all positions within the Consortium. The availability of job descriptions helps to ensure that staff can efficiently execute on their daily duties and helps to ensure a smooth transition in the event of staff turnover. We encourage the Consortium to continue reviewing and updating job descriptions on a regular basis.

3.4 Consortium Management

Consortium Management focuses on the operational aspects of the organization. This includes ensuring accountability of staff, focusing on continual improvement through operational planning, and risk management by having appropriate contracts and agreements in place to clearly define business relationships.

3.4.1 Observations

3.4.1.1 Cost sharing

The Corporate Consortium Membership Agreement outlines the cost-sharing mechanism:

- Non-transportation costs are allocated to each Member Board based on un-weighted ridership; and
- Transportation costs are allocated to each Member Board by:
 - Dividing the total cost of each route by the number of runs; and
 - Determining the cost of each run based on weighted ridership.

The non-transportation costs are based on un-weighted ridership as at the fall enrolment count date, and the transportation costs are based on weighted ridership as at the fall and spring enrolment count dates.

The Consortium calculates each Member Board's proportionate share of the Consortium's transportation and non-transportation costs based on actual results and the ridership data provided by the Consortium's route planning software.

3.4.1.2 Transportation service agreements

The Consortium has transportation service agreements with its Member Boards; these agreements outline the purpose of the agreement (i.e., to provide safe, efficient and effective student transportation services in accordance with the membership agreement), the service levels, and the terms of services.

The service levels are delineated in general terms (e.g., provide a high level of customer service, strive to be efficient and effective in administrating and operating student transportation) and obligate the Consortium to consistently apply the respective Member Boards' policies and administrative guidelines / procedures.

3.4.1.3 Purchase of service agreements / support services

The Consortium has purchase of service agreements with its Member Boards. The Consortium purchases human resources, financial, procurement and building support services from LDSCB and purchases payroll services from TVDSB. These agreements are valid for one year, as of July 1, 2010.

3.4.1.4 Procurement policies

The Consortium has guidelines in place regarding procurement and purchasing practices and policies: it abides by the policies and administrative procedures / guidelines of the LDSCB, which is currently providing the Consortium with procurement services.

The Consortium has amended its purchasing policy and procedures, which were based on LDSCB's purchasing policy and procedures, to reflect the regular business transactions of the Consortium, and as such:

- For purchases up to \$1,000: the administrative assistant can sign off;
- For purchases up to \$5,000: the Service Development Manager can sign off;
- For purchases up to \$65,000: the General Manager can sign off; and
- For purchases in excess of \$65,000: the General Manager can sign off with Board approval.

While the Consortium follows the LDSCB's purchasing policy and procedures, it should be noted that the LDSCB's purchasing policy and procedures explicitly excludes school bus transportation from its competitive procurement guidelines, however the policy is now subject to the Ministry of Finance Supply Chain Guidelines for the broader public sector

3.4.1.5 Banking

The Consortium has a purchase of service agreement with the LDSCB for financial services; a more detailed discussion can be found in the financial management section below.

3.4.1.6 Insurance

The Consortium has purchased insurance through the Ontario School Boards' Insurance Exchange (OSBIE). The insurance is valid from January 1, 2010 to January 1, 2011 and includes coverage for liability insurance, property insurance, boiler insurance and crime insurance.

Although insurance needs are reviewed regularly, the Consortium is in the process of formalizing a policy to regularly review its insurance needs.

3.4.1.7 Staff performance evaluation, training and management

The Consortium has a detailed human resources plan that sets out a strategy for developing a results-oriented organization by focusing on: effective people-management, leadership and mentorship, performance feedback, learning, and creating a flexible and motivational work environment.

A review of meeting minutes indicate that staffing levels are regularly reviewed and managed to ensure that the Consortium is adequately staffed.

Significant effort has been expended on developing an employee management and development program, with a focus on creating consistent and fair recruitment practices (e.g., structured interviews). The Consortium conducts performance evaluations every year, and the process involves a self-assessment and a supervisor assessment. Additionally, a leadership appraisal is completed for those in leadership roles (i.e., the Service Development Manager and the Senior Transportation Specialists).

Internal staff training and job-related training is provided on a regular basis; staff training initiatives are planned, documented and tracked. Staff are also given additional duties based on skills and abilities, to promote professional development, cross-training, and skills development.

The Board of Directors conducts the performance evaluation for the General Manager annually.

The Consortium's goals and objectives are communicated to staff through both informal and formal staff meetings; the formal staff meetings are scheduled in advance and meeting minutes are taken.

3.4.1.8 Succession planning

Efforts are made to ensure that there is one primary person with at least two others cross-trained on the same function, there is currently no formal succession plan. However, the Consortium has made efforts to structure the organization to allow for career path progression (i.e., Transportation Specialist to Senior Specialist to Service Development Manager to General Manager) and ensured that the Senior Development Manager's core competencies were specifically set out to complement the General Manager's core competencies, allowing the Senior Development Manager to handle the General Manager's responsibilities in the case of a prolonged absence, or to succeed the General Manager (if approved by the Board of Directors). The Consortium's approach is to deal with succession planning as an operational matter and to develop a talent pool of potential candidates for further opportunities within the organization.

3.4.1.9 Long term and short term planning

The Consortium has developed a business plan that is primarily focused on short- to medium-term goals, which management has indicated must be achieved to set the stage for longer term strategic goals. While the General Manager is responsible for developing the business plan, the Board of Directors provides input, direction and guidance throughout the process.

The five-year business plan focuses on four core areas: consortium management, policies and practices, routing and technology, and contracts. The business plan delineates a vision for each of these four core areas, and also enumerates a set of objectives for each of these four core areas. The Consortium also lays out a series of short-term goal and medium-term goals, as well as a few long-term goals.

Examples of some of the short-term goals include:

- Move to fixed- and variable-rate pricing in 2011/2012;
- Develop a comprehensive strategy for transportation-related RFPs for home-to-school transportation, to be implemented in 2011/2012; and
- Work with contracted service providers on matters to improve operating efficiencies, vehicle maintenance and support environmentally friendly fuel alternatives.

Examples of some of the medium-term goals include:

- Start 2011 with enhanced planning software implemented;
- Start 2011 with some routes on competitive procurement; and
- Continue with competitive procurement for the 2012/2013 school year.

Examples of some of the longer term goals include:

- Start 2013/2014 with all routes on competitive procurement;
- Continue roll-out of AVLS technology to enhance service delivery and safety; and
- Increase presence in community as a partner in safety through participation in appropriate groups.

In turn, the business plan is tied to the Consortium's Annual Work Plan, which assigns tasks, timelines and responsibilities for functions. The Annual Work Plan is presented to the Board of Directors for approval annually, and updated quarterly for information purposes.

3.4.1.10 Key performance indicators (KPIs)

The Consortium began measuring and reporting key performance indicators in 2009, and tabled the 2009-2010 KPI report at the September meeting of its Board of Directors.

KPIs will be used by the management team on a monthly basis to monitor performance, and will be reported to the Board of Directors on an annual basis; this process has been documented and approved by the Board. Management presents the following KPIs to the Board of Directors:

Table 4: KPIs Presented

| KPIs | |
|---|---|
| Ridership by Board (based on eligibility) | On-time service and reasons for delays |
| Ridership by Board (regular service, specialized service) | Accident frequent rating, based on kilometers |
| Ridership for enhanced services | Reviews processed |
| Cost per transported student (regular service, specialized service) | Employee satisfaction surveys |
| Travel to bus stop distance | Professional development summary |
| Ride time | Attendance management summary |
| Transfer information | Capacity utilization of vehicles |
| Number of routes, by contractor | Kilometres traveled and costs |

Management will also be presenting the following start-up related KPIs at the next Board meeting: Call Volume, Website Traffic, and Parent Portal Use.

The organization also has an online survey asking parents to comment on the services provided by the Consortium. This survey will provide the organization with direct feedback on their performance from their clients. Additionally, the Consortium has a newsletter service feature on its website so that parents, schools or anyone interested can register their e-mail and receive periodic electronic newsletters that discuss current happenings and upcoming changes.

3.4.1.11 Information management

The Consortium has appropriate, documented procedures and confidentiality agreements in place governing the use of student data and ensuring compliance with relevant legislation (i.e., MIFIPPA and PIPEDA). The Consortium's privacy policy explains how the entity collects, uses and discloses personal information, and the Consortium has also created a terms of use for its website that outlines the terms and conditions under which the website can be used.

The Member Boards have permission from parents to release student data to the Consortium, as it is covered by the MFIPPA statements that parents sign at enrolment.

The Consortium has signed confidentiality agreements with its staff and its Member Boards, and has all drivers agree annually, in writing, not to release any confidential student information.

The Consortium has drafted a policy governing the use of cameras on buses; approval has been obtained from the Board of Directors and the policy has been posted on the Consortium's website. The General Manager is working with independent legal counsel to harmonize the policy with the Member Boards' privacy and information management policies.

3.4.1.12 Declining enrolment

The Consortium currently manages the changes in funding for declining enrolment on an annual basis. No financial forecasting is done for future years with respect to predicting funding changes and proactively planning necessary transportation requirements.

3.4.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Cost sharing agreements

The Membership Agreement outlines the cost sharing mechanism for STS. A documented methodology for cost sharing is a best practice to ensure accountability over costs and appropriate operational cash flow for the financial obligations of the Consortium.

Transportation service agreements

The Consortium has formalized, jointly-signed contracts in place with Member Boards that specify the transportation services that are to be provided by the Consortium to the Member Boards. The scope of services to be provided, fees, insurance/liabilities, dispute resolution and terms have been clearly articulated and agreed upon prior to the delivery of service.

Purchase of service agreement / support services

There are purchase of service agreements in place between the Consortium and all of its service providers that outline the scope of the services to be provided and the manner in which the suppliers are to be compensated for these services. Clear contracts ensure required services are satisfactorily provided to the Consortium and decrease the chances of misunderstanding.

Insurance

The Consortium has obtained insurance coverage and coverage needs are periodically reviewed. Insurance coverage is essential to ensure the Consortium and Member Boards are each suitably protected from potential liabilities.

Staff performance evaluation, training, and management

Staff performance evaluations are conducted on a regular basis with a clear, easily understood framework that is specific to the Consortium and its needs. The metrics which are used are supportive of the goals and objectives of the Consortium. Likewise staff training is provided on a regular basis and is tracked internally; training goals are aligned with overall Consortium strategy and objectives which is important to ensure alignment between efforts and goals.

Key Performance Indicators

The Consortium makes extensive use of available data in both the course of the annual transportation planning process as well as a tool for operational efficiency assessments. It also has a venue through which stakeholders can provide feedback on performance (i.e., the online surveys). Formally monitoring a relevant portfolio of KPIs allows the Consortium to quantify its performance and generate realistic business improvement plans, while having a venue through which clients can provide feedback allows for increased responsiveness to client needs. The Consortium should also be commended for its use of trending in tracking its KPIs as trending analysis can be useful in understanding year over year progress and/or changes in the operating environment.

Information management

The Consortium has developed governance approved policies related to the use of confidential information and has confidentiality agreements in place that help to ensure the confidentiality of all information.

3.4.3 Recommendations

3.4.3.1 Develop a strategy for declining enrolment

School enrolment across Ontario has been in steady decline over the last decade. Given that the Consortium currently serves some rural areas, and given the Ministry's recent notice that transportation funding is to be reduced in line with declining enrolment, it is recommended that the Consortium incorporate a strategy for the management of transportation costs into its long term planning process. In particular, this strategy should focus on the financial impact declining enrolment is expected to have on the Consortium and should present appropriate mitigation strategies. Developing such a plan will provide the Consortium with a framework that will help it address not only the issue of funding, it will also signal a proactive approach to dealing with issues before they arise – a key element of effective long-term Consortium management.

3.4.3.2 Develop succession planning document

It is acknowledged that Consortium staff has experience and is able to keep the Consortium running should a key staff member depart or be absent from the Consortium, as efforts have been made to ensure that every function has a primary person with at least two others cross-trained to fill the position and that the organization has been structured to allow for career path progression. However, it is recommended that the Consortium formally document this in a separate policy, and review and update this policy regularly. Documenting the succession planning policy will ensure the continued smooth operation of the Consortium should anything unexpected happen.

3.4.3.3 Procurement policies

It is recommended that the Consortium review its policies for appropriateness in transportation procurement decisions. Particular attention should be paid to the purchasing thresholds associated with

initiating a competitive procurement process, and in bringing the Consortium's practices in line with the Ministry of Finance Supply Chain Guideline for the broader public sector.

3.5 Financial Management

Sound financial management ensures the optimal use of public funds and also ensures the integrity and accuracy of financial information. This includes appropriate internal controls and a robust budgeting process that has a clearly defined planning and review calendar that promotes accountability and sound decision making.

Financial management policies capture roles and responsibilities, authorization levels, and reporting requirements to ensure that a proper internal financial control system is in place for the Consortium. These policies should also clearly define the financial processes of the Consortium in a way that ensures appropriate oversight without impinging on efficiency.

3.5.1 Observations

3.5.1.1 Budget planning and monitoring

The Board-approved fiscal responsibility policy assigns responsibility for the budget planning and monitoring process to the General Manager. The General Manager has primary responsibility for developing and presenting the annual budget to the Board of Directors, for encouraging the participation of key stakeholders, and for ensuring compliance with the Ministry of Education's guidelines.

The General Manager prepares a draft budget in February of the prior fiscal year, which is then adjusted for the Ministry of Education's revised funding allocation. The Board of Directors reviews the adjusted budget, and the budget is approved and adopted once the Member Boards finalize their own budgets. This budget is then revised in August or September to capture the most accurate route costs and is again approved by the Board of Directors; this final budget is then implemented by the General Manager.

When preparing the budget, the General Manager starts from the previous year's actual costs and then incorporates adjustments for factors known to be changing for the upcoming year.

The Consortium conducts budget-to-actual reconciliations on a regular basis internally and provides a report to the Board of Directors at every Board meeting; variances are monitored and investigated.

3.5.1.2 Accounting practices and management

The Consortium has documented governance-approved policies with respect to fiscal responsibility, procurement, invoicing and monitoring transportation-related expenditures, invoicing and monitoring operating expenditures, expense reimbursements, and petty cash.

The Consortium has a service agreement with LDCSB for financial services. This includes having the LDCSB administer all payables and receivables, maintain all necessary records, invoice parties as required, and prepare monthly financial statements. Additionally, the treasurer for the Consortium is appointed as a non-voting member from the LDCSB finance department.

All invoices received by the Consortium are reviewed and approved by either the Service Development Manager (if under \$5,000) or the General Manager (if over \$5,000). With respect to operator invoices, the Consortium's process is summarized below:

- The Consortium prepares an Operator Summary that details daily costs and kilometres driven;
- Provides the operators with the Operator Summary, to aid operators in preparing invoices;
- Receives and reviews the operators' invoices;
- The General Manager authorizes payment of the invoices; and
- LDCSB's Accounts Payable department processes the payment in accordance with appropriate procedures.

3.5.1.3 Audit

The Service Agreement between the Consortium and LDCSB requires that the LDCSB prepare the Consortium's financial statements. The Consortium has recently engaged a third party independent

auditor. The 2008/2009 statements will be audited in the coming months and the 2009/2010 statements shortly thereafter.

3.5.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Internal controls

STS and its Member Boards have established policies and internal controls for the accounting of STS' revenues and expenses. The accounting function is performed at the Board level; however, there is a first review and approval at the STS level. STS is not able to disburse funds, therefore the second level of reviews occurs at the Board level prior to disbursements - this protects the Consortium and the Member Boards against fraud and/or errors in accounting.

Accountability

The Consortium conducts routine reviews and approves reconciliations to ensure proper control and prevent accounting errors. Budget-to-actual variations are also documented on a regular basis.

Budgeting processes

The Consortium has established a process, in conjunction with its Member Boards that allows budgets to be prepared on a timely basis. The budget monitoring process ensures that the General Manager is accountable for expenditures through regular reporting to the Board of Directors.

3.6 Results of E&E Review

This Consortium has been assessed as **Moderate-High**. STS has used a governance structure that ensures accountability, transparency and responsiveness of the governance body to stakeholder needs. STS is also a separate legal entity that has clear lines of reporting between all relevant parties (i.e., staff, management, governance, and other interested stakeholders). The Consortium has also managed risks by having appropriate contracts and agreements in place to clearly define business relationships – however, improvements could be made by developing a strategy for declining enrolment, enhancing its purchasing policies to incorporate the use of competitive procurement, and modifying its operator payment process so that the operators prepare their invoice independent of input from the Consortium.

4 Policies and Practices

4.1 Introduction

Policies and practices examine and evaluate the established policies, operational procedures, and the documented daily practices that determine the standards of student transportation services. The analysis for this area focused on the following three key areas:

- General Transportation Policies & Practices;
- Special Needs and Specialized Programs; and
- Safety and Training Programs.

The observations, findings, and recommendations found in this section of the report are based on onsite interviews with Consortium staff, and on an analysis of presented documents, extracted data, and information available on the Consortium's website. Best practices, as established by the E&E process, provided the source of comparison for each of these key areas. The results of the assessment are shown below:

Policies and Practices – E&E Rating:

Moderate-High

4.2 Transportation Policies & Practices

The goal of any transportation operation is to provide safe, effective and efficient services. For transportation consortia, it is equally important that service to each of the Member Boards is provided in a fair and equitable manner. To support this goal, it is essential that well defined policies, procedures, and daily practices are documented and supported. Well defined policies ensure that the levels of services to be provided are clearly established while documented procedures and consistent practices determine how services will actually be delivered within the constraints of each policy. To the degree that policies are harmonized along with the consistent application of all policies, procedures, and practices ensures that service will be delivered safely and equitably to each of the Member Boards. This section examines and evaluates the policies, operational procedures, daily practices, and their impact on the delivery of effective and efficient transportation services.

4.2.1 Observations

4.2.1.1 General policy guidelines

STS has implemented an array of policy statements, approved by the Consortium's Board of Directors, that describe the constraints and parameters under which the Consortium provides services. These policy statements are publicly available on the STS website and are grouped into seven categories. These categories, with a summary of the subordinate policy statements within each category, are as follows:

1. *Roles & Responsibilities* – bus company; bus driver; parents; school; students; STS
2. *Eligibility Guidelines* – primary address; alternate address; joint custody
3. *Operating Guidelines* – video cameras; student discipline; transfers; hazards; exchange students; special requests; temporary transportation; run sharing; walk distance to stop; bus stop locations; transit; ride times; bell times; arrival and departure windows
4. *Information for Parents & Students* – lost items; eating or drinking on bus
5. *Emergency Procedures* – emergency transportation; inclement weather; school closure; first aid/EpiPen; accidents; missing student
6. *Dispute Resolution* – request for transportation review; request for review of distance
7. *Accessible Transportation Services* – accessible transportation; service animals; support persons; application for specialized transportation

In support of the formal, publicly available policy statements are a series of confidential (for internal use only) procedure statements that expand upon and supplement the policies. In some cases these are stand-alone procedure statements designed to coordinate and describe internal business processes. Key examples of these statements include:

- Backup and data recovery;
- Geocode modifications; and
- Modification procedures for existing runs/routes.

In other cases procedural aspects are covered in various published guides and other documents that are not codified as formal procedure statements. Some examples of these include:

- Specialized transportation guide;
- Accident management guide; and
- Transportation Specialist duties for route maintenance.

The array of STS policy and practice documentation covers all key elements of transportation planning and operations. Except as noted below, they provide for a clear and concise explanation of the parameters and constraints under which the transportation system operates. This is consistent with the expectations of the Effectiveness and Efficiency (E&E) review process. Particularly noteworthy are several policy and procedure documents that explicitly promote operating efficiency, including the policy statement on run sharing. A more detailed examination of the strengths and weaknesses within the key transportation planning and operations management criteria is provided as follows.

4.2.1.2 Eligibility and allowable walking distances

Two critical aspects of transportation eligibility are not covered by STS policies. Instead, the Member Boards have retained the right to establish distance and program based eligibility for transportation. The “School Bus 101” guide available under the Policies and Procedures heading of the STS website is the only documented reference whereby parents are instructed to see their respective Member Board’s website to access this information. Currently, each Member Board retains a separate transportation policy that addresses these two elements of policy, as well as other elements that are duplicated under STS policy (e.g., designation of hazards). It is reported that the STS policy governs in all areas except for distance and program-based eligibility. This is not clearly documented in the policies themselves, and an apparent conflict therefore remains as long as the Member Board policies remain in place, contain differences with actual operational practices, or don’t provide clear subordination language for designated sections. The key eligibility policy differences in each set of policy documentation are summarized in Table 5.

Table 5: Key policy comparison

| Policy | STS | TVDSB | LDCSB |
|------------------------------------|---|--|--|
| Eligibility by attendance boundary | No policy | Within boundary only Some specialized programs | Within boundary only Some specialized programs |
| Eligibility by distance | No policy | Urban: 2.0 (JK-8), 3.0 (5-8), 4.8 (9-12) Town: 1.6 (JK-8), 2.4 (5-8), 3.2 (9-12) Rural: all eligible | 1.6 Elementary 3.2 Secondary |
| Walk to stop | JK-8: 800 meters urban, 400 meters rural 9-12: 1600 meters urban, 400 meters rural | 1.0 Elementary 2.0 Secondary | Residential: 0.8 Elem, 1.6 Sec Rural: 0.4 Elem, 0.8 Sec |

Full policy harmonization for eligibility and allowable walk distances is still a work in process. Walk to stop distances have been harmonized within the STS policy, although conflicting documentation still exists at

the Member Board level. It was also reported during the E&E onsite visit that the Member Boards have agreed to common eligibility distances of 1.6 kilometres and 3.2 kilometres for elementary and secondary students, respectively. Meeting minutes submitted subsequent to the onsite portion of the review confirms that these harmonized distances have been recently implemented, although this is not yet reflected in the policies themselves. The Consortium has indicated the Member Boards' willingness to make changes to their individual transportation policies to reconcile the differences and inconsistencies that still exist in the documentation.

Home to school transportation is generally provided per the distance based eligibility policy and within the home school boundary. Each Member Board also provides for transportation to designated specialized programs, regardless of student location relative to those programs. Boundaries are established within the *Edulog* routing software such that these students are automatically assigned the proper eligibility code based on their school and program of attendance. Cost differences are handled through the cost sharing methodology. No other out-of-boundary or out-of-district transportation is provided except as indicated in the section on courtesy transportation below. This approach is consistent with the intent of the E&E process.

4.2.1.3 Service addresses

The Consortium includes policies on primary and alternate addresses under the "Eligibility" subject heading in its policies. A brief statement establishes the policy that home to school transportation will be provided from a single primary address, established as the address provided by the Member Board. Very specific and limited criteria are established in the "Alternate Address" policy governing the circumstances under which transportation will be provided to an address other than the primary. These include, but are not limited to:

- The alternate must be within the same school boundary.
- The service will only be provided every day (i.e., no alternate day transportation).
- There must be an existing bus stop servicing the address.
- There must be a seat available on the alternate bus run.

Another policy statement titled, "Temporary or Custom Transportation" specifically establishes that the Consortium does not provide this type of service, and provides specific examples of requests that will be denied. These include, but are not limited to:

- The student must work on a project at a friend's house.
- The parent or guardian must work later than expected.
- The parent or guardian will not be able to arrive on time at the bus stop.
- The parent or guardian must be away for a few days or a few weeks because of an emergency.

This combination of policy statements provides for succinct, clear, and comprehensive operating parameters. The language establishes constraints on service delivery that promote efficiency. The approach to documentation is consistent with the intent of the E&E process and a review of operating practices and system data indicates a high level of overall compliance with the policy requirements. Currently, based on morning transportation only, there are 1,667 approved alternate address riders representing 3.4 percent of all riders in the system.

4.2.1.4 Other transportation eligibility

STS does not provide courtesy transportation, and there are no documented policies or operating practices specifically regarding courtesy transportation. There is, however, a policy that states, "STS does not provide temporary or custom transportation", which addresses a number of aspects that might normally fall under the "courtesy" umbrella.

There are also examples of transportation being provided outside of the distance-based eligibility criteria. First, the Thames Valley District School Board (TVDSB) allows for "Choice of School" under an application process. These are separately coded in the *Edulog* routing software and are reported as

courtesy riders in the annual Ministry of Education survey. There are also several examples of “Board Approved” exception based transportation. Finally, there are some students being provided with transportation on a grandfathering basis because of distance measurements that were inaccurate in the past. In total, and as summarized in Table 6, there are 741 morning riders in these three categories, representing 1.5 percent of all morning riders.

Table 6: Morning rider count for other eligibility categories

| Code & Program | Count of AM Riders |
|-----------------------------------|--------------------|
| 15 - Board Approved | 80 |
| 16 - Grandfathered | 45 |
| 21 - Choice of School | 616 |
| Total | 741 |
| <i>Total Transported Students</i> | <i>48,712</i> |
| <i>Percent of Transported</i> | <i>1.5%</i> |

The Consortium clearly identifies the eligibility status of all students within its coding scheme. This is consistent with the expectations of the E&E process. The three categories of students identified in Table 6 are not, however, specifically identified as eligible for transportation in policy and therefore fall within the broader definition of students being transported who are “not otherwise eligible”. This lack of clarity regarding the eligibility status of these students is an element that is inconsistent with the intent of the E&E process.

4.2.1.5 Hazardous transportation criteria

The Consortium has a policy titled “Hazard Designations”. The STS policy establishes the sole responsibility within the Consortium management structure for designating hazards. It goes on to state that the decision of the Consortium cannot be appealed, that the designated hazard areas will be reviewed periodically, and lays out a list of specific criteria to be considered in establishing the hazard. These include:

- Age of the Students
- Traffic Volume
- Posted Speed Limits
- Number of Travelled Lanes
- Sightlines
- Intersections
- Travel Conditions
- Physical Barriers
- Grade of Road or Curve of Roadway
- Land Use

STS has established boundary designations within the *Edulog* routing software for each approved hazard area. These work in concert with the school attendance boundary, and the allowable walk distance boundary for each grade level to provide an automatic determination of each student’s transportation eligibility. A review of operating practices indicates a strict interpretation, and high degree of compliance with the policy. Currently, based on morning transportation only, there are 3,131 riders eligible due to hazards, representing 6.4 percent of all morning riders in the system.

4.2.1.6 Student ride times

The STS policy “Duration of Bus Ride” establishes a 70 minute maximum ride time for all students, with the exception of specialized transportation, although the policy appropriately notes that “geography and program options may prevent this in some circumstances.” This flexibility is critical in dealing with certain specific situations and to facilitate a high degree of efficiency and effectiveness throughout the system. Analysis of the data, which is detailed in the Routing and Technology section of this report, indicate that more than 97 percent of all transported students have ride times that are less than the 70 minute criteria, and that the average ride time is approximately 30 minutes with a regular distribution across the entire range. These statistics are indicative of a high degree of compliance with, and an appropriate application of the underlying policy.

4.2.1.7 Designation of responsibilities

There are specific STS policy statements outlining the responsibilities of the parent or guardian, the student, the bus operator, the bus driver, the school principal, and STS in the provision of transportation services. These policies are comprehensive and appropriate, and provide excellent context for translating eligibility and other policies into a practical, functional, efficient, and effective transportation system.

4.2.1.8 Decision appeal processes

Two unique STS policy statements address dispute resolution: “Request for Review of Transportation Arrangements” specifically references that transportation will be provided in accordance with STS policy, but provides an appeal process to follow if “a parent/guardian is not satisfied that their students’ transportation arrangements are consistent with these policies and procedures”. The process includes a form to complete plus tiered review by, in succession, the Transportation Specialist, Senior Transportation Specialist, Service Development Manager, and the Transportation Review Committee (which is comprised of the Serviced Development Manager, the General Manager, and two members of the Board of Directors), whose decision will be final. “Review of Distance Calculation” is specific to how distances are calculated. It states that the routing software will be utilized for this purpose, that parents may submit a complaint for review, and that the STS decision will be final. As with other policies, a conflict continues to exist in that the TVDSB has a separate appeals process within their transportation policy. Other than this, these policies are clear, concise, and consistent with the intent of the E&E process. An analysis of the data indicates a high degree of compliance with the policy framework in general, which in turn supports the presumption of high compliance with the decision appeal process.

4.2.1.9 Route planning schedules and strategies

A formal planning schedule of events with specific task assignments and deadlines was first established for the 2009-2010 school year planning cycle. This marked the first year where the full integration of Consortium operations allowed for this approach. Planning for the current 2010-2011 school year followed the same basic approach, but this time the planning cycle was documented and tracked utilizing a project management software program (“Project Kickstart”), with key milestone dates and deadlines placed on large view calendars in the Consortium office. It is anticipated that the process established for the 2010-2011 planning cycle will be replicated in future years.

The process commences with staff meetings in March. A separate *Edulog* routing software database is established in April that includes updated student information from the Member Boards, including JK/SK registrations, grade advancements for other students, and elimination of current grade 12 students. The route scheme is carried over from the current year database and is used as the baseline for planning the following year’s runs and routes. From the point at which the new database is established, all run and route changes (e.g., bus stop additions or deletions) implemented on current runs are dual-entered in both databases until the end of the school year at which time the new database becomes the live database, and the old database is archived.

Updated student data is received via weekly downloads right through the end of the planning cycle in August. Transportation Specialists conduct route planning tasks as per the calendar and project plan. Major changes are planned using a team approach whereby specialists are assigned to work together on a specific geographic area or for specific changes such as bell time modifications or school closings / openings. The routes are finalized in August and notification cards are mailed providing information to parents on where they can access their students’ busing information.

The most recent planning cycle was complicated by the departure of the French language school boards from the Consortium, the harmonization of walk distance eligibility policies, and several other operational

changes such as school closings. The overall approach, however, represents a logical, coordinated, and appropriate planning cycle that ensures all seasonal tasks are completed and that supports a framework for continuous evaluation of system efficiency and effectiveness.

Several policy and procedure documents reinforce the Consortium's commitment to achieving maximum efficiency, and their stated intent to mix students from each of the Member Boards, as well as students from different panels on the same bus runs and routes. A specific STS policy addresses run sharing and states, in part, that "wherever it is possible, runs will be shared..." An internal procedure statement titled "Route / Run Planning and Modifications to existing runs" provides documented guidance on the application of specific routing techniques. A number of subjects are covered by this procedure statement under the sub-headings of "Process for Creation of Bus Runs" and "Process for Creation of Bus Routes". In addition, the team-based and project-based approach to annual planning facilitates knowledge sharing and the application of advanced routing techniques. Data analysis, as detailed in the Routing and Technology section of this report, indicates that many routing techniques are in practical use throughout the system, including run tiering (double runs / routes), combination runs, and transfers.

4.2.1.10 Bus operator involvement in route planning

Individual bus runs are assigned to bus operators by STS management. As changes to the system are implemented, runs are added to or taken away from operators based on the results of the operator audits. Those receiving more favourable ratings are more likely to be assigned additional runs. This is in contrast to prior years where the operators association was responsible for distributing run assignments, and is an interim step toward a competitive procurement approach.

For day-to-day run and route maintenance, specialists have access to the operator rate sheets and are trained to use these as a guide and information resource to ensure that run planning is consistent with a least-cost methodology, and not simply focused on getting the maximum utilization out of each bus. There is feedback from bus operators on run efficiency, and the specialists are accountable to STS managers (through a financial reconciliation process) for the efficiency of bus runs and routes.

Prior to the formation of the Consortium, the bus operators were largely responsible for the actual planning of bus runs and routes. Now the operators are involved by providing feedback via a route reconciliation process after the planning is completed by the Transportation Specialists. Operators are required to test each bus run and note any inaccuracies in run timing, inappropriate stop ordering, or suggestions for improvement to the Transportation Specialists.

Bus operators are provided with access to a set of reports via the Operator Portal on the Consortium website. The primary run listing provides them with access to student roster, stop locations, stop order, and time at each stop. The operators are not, however, provided with specific "left/right" driver directions and are instead expected to develop these on their own. This has resulted in different approaches at each operator. Some operators even duplicate run information in other software systems in order to produce the driver directions. Others rely on manually drafted driver directions. In every case, however, there is a possibility that the directions will differ from those produced in the *EduLog* software.

4.2.1.11 Bell time management

School bell time changes are governed by a STS policy titled "Change in School Hours (Bell Times)." The policy states that requests can only originate at the school level or at STS (to promote system efficiency), and establishes separate processes for handling each type of request. For school level requests, a form must be completed and signed by the Member Board's superintendent, and submitted by February 15th for changes to take effect the following school year. STS then reviews and approves or denies the request. STS is obligated to provide its reasoning and associated costs. STS originated requests are only provided if deemed to be financially beneficial. Requests must also be completed by February, but go through a two-stage approval process: first, they must be approved by the SWOTS Board of Directors, and then, if approved, the request goes to the Member Boards for final consideration and approval.

Another policy titled "Bus Arrival and Departure Windows" provides valuable supporting documentation to the bell time policy. It establishes specific time criteria for how much before a designated bell time buses are allowed to arrive at a school, and how soon after dismissal buses are allowed to depart. This policy also discusses timing at bus stops and establishes supervisory responsibilities at school locations.

Bell time management is a key foundational element in establishing an effective and efficient transportation system. The policies in place in STS provide an excellent backbone to facilitate future

changes. An analysis of the data, as detailed in the Routing and Technology section of this report, indicates that further opportunities exist to improve efficiency within the STS service area through bell time coordination. The nature of bell time adjustments nevertheless demands long lead times and the consideration of numerous factors other than transportation efficiency when making changes. The policy framework now in place will facilitate the ongoing evaluation of future opportunities, and is consistent with the expectations of the E&E process.

4.2.1.12 Bus stop placement

There is a STS policy statement titled “Selection of Bus Stop Locations” that provides specific criteria on the selection of bus stop locations. This policy clearly established STS as the sole authority in designating bus stop locations, that only approved locations will be serviced, and lays out a set of criteria used by route planners in establishing stops. This policy statement is comprehensive and in keeping with the expectations of the E&E process.

4.2.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

4.2.2.1 Eligibility for transportation using alternate address

The Consortium’s documentation for establishing the primary address as well as designating eligibility for joint custody and other alternate addresses is clear, definitive, and provides excellent backup for promoting operational efficiencies.

4.2.3 Recommendations

4.2.3.1 Clarify policy documentation and applicability

STS policies and practices reflect many of the best practices identified throughout earlier E&E Reviews. The scope and content of the existing documentation is excellent, and the review indicates a high overall level of compliance with the parameters and constraints established in these documents. The one issue that remains to be settled is the inconsistency of a few policies and, as a result, the potential for a perception of conflict exists as a result of the continued existence of separate Member Board transportation policies. Reserving the right to define transportation eligibility at the Member Board level is valid and clearly understood, but this requires a higher standard of care to ensure that the applicability and, even more important, the application of each set of policies is consistent and appropriate. It also demands that any and all discrepancies between the policies be clarified and overlaps eliminated. The Consortium should consider adopting a policy statement that specifically cross references the STS policies to those Member Board policies that will remain in place. The Member Board policies, in turn, should be redrafted to reflect the same relationship and to eliminate all areas of discrepancy and overlap with the STS policies and documented procedures.

4.2.3.2 Clarify policies regarding courtesy transportation

A small, but not insignificant percentage of transported students are currently being provided with service outside of the parameters and constraints currently established by policy. The status of these students who are not normally eligible for transportation should be clarified. If the intent is to eliminate service to these students, this should be documented as such. If it is anticipated that these categories of service will be continued, or that similar circumstances may arise for other categories of students in the future, there should be policy documentation to reflect these situations.

4.2.3.3 Provide specific route direction information to bus operators

Currently, the information available to bus operators for each bus run is limited to bus stop locations, sequence, and timing in addition to student rosters. Specific routing information (“left-right” directions) is not made available. This leads to unnecessary duplication of data and effort as operators create their own route directions. This also causes an inconsistent level of routing information being available to bus drivers working for different operators. For purposes of consistency, efficiency, and safety the Consortium should consider providing detailed route directional information to operators. While this information is unlikely to be completely accurate all the time it does, at a minimum, provide a consistent baseline from which the operators and the Consortium can work to reconcile differences and improve the accuracy of the underlying map and route data. The data required to produce these reports is currently available within the *EduLog* routing software.

4.3 Special Needs Transportation

4.3.1 Observations

Planning transportation for special needs students can present additional challenges as one must consider not only time and distance constraints, but also the physical, and emotional needs of each individual student. Additional factors to consider include equipment needs such as wheelchair lifts, special restraints or harnesses and medically fragile students who require assistance or medical intervention. Policies specific to the transportation of special needs students are essential to ensure that transportation meets each individual student's needs and is provided in the safest manner possible.

4.3.1.1 Special needs policies and planning guidelines

Special needs transportation is governed by the STS policy "Accessible Student Transportation". The policy encourages integration of these students on regular buses, but acknowledges the requirement for specialized transportation due to disabilities and safety considerations. Certain thresholds must be met to qualify, and the appropriate forms submitted to STS by June 30 for the following school year. Once approved, whatever requirements are stipulated by the student's IPRC is provided by STS. The Consortium has not generally been involved with the IPRC process at the Member Boards. Rather, STS reacts to the requirements presented, but will provide information if requested and will offer opinions on the cost implications of the service if it is deemed to be necessary.

All of the related forms, instructions, and a step-by-step guide for establishing the student record and managing the transportation setup process are included in the STS Specialized Transportation Guide. This is an excellent internal procedural document utilized to ensure consistency in service delivery and for cross-training of Transportation Specialists within the organization. Processes followed are consistent with the customized nature of the service requirement. Routing changes occur with regularity over the course of the school year as programs, addresses, or the special needs of individual student changes. All special needs vehicles are integrated, to the extent feasible, without regard to Board or program affiliation.

All required data to accurately establish, monitor, and report on the each student's needs is incorporated into the student's *Edulog* student record, and protected from overwrites and changes during the automated daily and weekly student data update processes. The Transportation Specialist responsible for special needs transportation planning maintains close contact with the appropriate coordinators at each Member Board. All data transfer and data entry is handled manually via the application form, and direct contact is maintained with the coordinators to ensure that each student receives the appropriate attention and the proper services.

The STS policy "Support Persons for Students with Special Needs" authorizes the use of on-bus support staff. Support Persons for Students with Special Needs are typically nurse aids and are there for medical reasons. Bus monitors are utilized by the operators and are added to vehicles, both specialized and regular, to assist with behavioural issues. Monitors may be added at the request of a school principal, and with the approval of STS. Support persons on special needs runs are more typically nurse aids and are included to handle the medical needs of specific students.

4.4 Safety policy

4.4.1 Observations

Ensuring student safety is the foremost goal of any transportation organization. In support of providing safe transportation, it is imperative that clear and concise policies, procedures, and contractual agreements are developed, documented, monitored, and enforced to ensure that safety standards are understood and followed without exception. The bus operators are contractually required to provide safety related training to its drivers and are also mandated to provide programs to the schools including the First Rider Program, vehicle evacuation drills, and bus patroller.

4.4.1.1 General safety policies and guidelines

The Consortium's Service Development Manager is tasked with the overall responsibility for safety and safety administration. This includes oversight of all safety programs as well as operator compliance and site audits. Several safety programs are in place, including:

- *Safety tag identification program* – This program provides color coded hard plastic safety tags to be worn by all JK/SK students, EpiPen users, and transfer students.

- *Public service announcements* – The Consortium cooperates with bus operators, municipalities, and other participants in providing public service announcements related to safety issues and concerns on local media outlets.
- *Buster the Bus (first time rider) training* – Provided under contract, this program supplies educational materials and interactive programs to new and young users of the transportation system.
- *Annual evacuation training* – Provided under contract and coordinated by the Consortium for every class in grades JK-8.
- *Accident / incident reporting and metric tracking* – A comprehensive program for self-reporting of accidents and incidents by the bus operators, including an email notification system and performance measure data collection.
- *Operator operations and safety audits* – A regular program to ensure bus operator compliance with the operational and safety requirements of their contracts.

The Consortium provides administration and oversight for all of these programs. Other than the operator compliance audits and safety tag identification, the programs themselves are provided under contract by the bus operators. All programs are Consortium-wide initiatives.

Extensive Consortium documentation supports and defines the safety programs. While there is no policy section under the heading of “safety”, there is a section titled “Emergency Transportation”. This was a decision by the Consortium to bring extra focus to the subject. This policy section covers a number of safety-related subjects, including:

- Emergency Transportation;
- Emergency School Closures Affecting School Bus Service;
- Emergency Provision First Aid, Epinephrine (EpiPen) or CPR;
- School Bus Accident Management; and
- Missing Student.

In addition, safety-related subject matter is covered in a number of other statements throughout the range of STS policies. The documented policies are supported by other documentation, including safety program materials and a comprehensive Motor Vehicle Accident Management Program guide. A more detailed examination of the strengths and weaknesses of policies and practices within the safety area is provided as follows.

4.4.1.2 Driver training programs

Driver training standards are established in the operator agreements, and are common to all operators. Requirements include initial training, plus annual and advanced refresher training on a list of topics. Each operator develops their own specific training materials under the umbrella of these requirements. There are no unique requirements for special needs training.

4.4.1.3 Operator compliance auditing

Safety standards are mostly codified in operator agreements. Enforcement of these standards is administered through operator compliance audits. These are conducted every six months for every operator, and provide an excellent forum through which to address questions or concerns that arise, and for each operator to demonstrate to Consortium management that they are meeting or exceeding the service expectations established by contract.

4.4.1.4 Use of cameras

Per the operator agreements, ten percent of the bus fleet must be equipped with digital video cameras. The operators own this equipment, and determine a rotation schedule for their routes. If a specific need arises, the Consortium can, however, direct where to place the cameras. The STS policy “Use of Video Cameras on Buses” provides for the use of the cameras, and outlines a program for how the information may be accessed and for how long it is retained.

4.4.1.5 Inclement weather procedures

The STS policy “Inclement Weather Causing School Bus Delays and/or Cancellations” governs the process for weather induced delays. The policy calls for a cooperative effort between STS and the bus operators, who are engaged in the decision-making process via the “Weather Committee”. The supporting procedure establishes responsibilities and a process for deciding and acting upon a weather related closing or delay.

All delays and cancellations, whether for individual buses on a day-to-day basis or inclement weather related, are reported to the Consortium via the Operator Portal. Consortium management is able to mine the data for use in developing KPIs and for operator performance tracking. Inclement weather delays and cancellations are posted to the Consortium website via a link to an application hosted by WOSBA. This is an excellent application and allows parents a direct way to access information on inclement weather related delays and cancellations.

4.4.1.6 Accident and incident procedures

The STS Motor Vehicle Accident Management Program guide provides the Consortium accident prevention and management protocols. The guide is available to the operators via the Operator Portal. The guide outlines program objectives, and provides specific prevention, reporting, tracking, and mitigation procedures. Compliance is assured through periodic operator audits. Incidents are reported via the Operator Portal as well, with automatic email notifications to mobile phones of STS managers.

4.4.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

4.4.2.1 Safety tag program

The Consortium’s safety tag program represents an excellent example of how service effectiveness and overall safety can be improved through innovation and without significant additional expenditures.

4.4.2.2 Incident reporting database

The database where all delays, accidents, and incidents are self reported by the bus operators facilitates improvements to operations, better information flow to the users of the system in real-time, and excellent data analysis for the reporting of performance.

4.5 Results of E&E Review

Policies and Practices development and implementation has been rated as **Moderate-High**. The Consortium demonstrates that all of the required elements for a successful operation are in place in a very practical sense. The supporting documentation, however, requires revision in order to minimize the possibility of misunderstanding, misapplication, or conflict in the interpretation of the statements. This is particularly true as it applies to service eligibility and the interplay that currently exists between Consortium policies and those of its Member Boards in this area.

5 Routing and Technology

5.1 Introduction

Routing and Technology encompasses the management, administration, and use of technology for the purpose of student transportation management. The following analysis stems from a review of the four key components of:

- Software and Technology Setup and Use;
- Digital Map and Student Database Management;
- System Reporting; and
- Regular and Special Needs Transportation Planning and Routing.

Each component has been analysed based on observations from fact (including interviews) together with an assessment of best practices leading to a set of recommendations. These results are then used to develop an E&E assessment for each component, which is then summarized to determine an E&E assessment of Routing and Technical efficiency as shown below:

Routing and Technology – E&E Rating:

Moderate-High

5.2 Software and technology setup and use

Any large and complex transportation organization requires the use of a modern routing and student data management system to support effective and efficient route planning. Effective route planning not only ensures that services are delivered within established parameters but also helps to predict and control operational costs. Modern software systems have the ability to integrate and synchronize with student accounting, communications, and productivity software. The integration of these software systems allow for more effective use of staff time and supports timely communications, data analysis and reporting. Web-based communication tools in particular can provide stakeholders with real time and current information regarding their student's transportation including service or weather delays, the cancellation of transportation, or school closings. To derive the greatest benefit from these systems, it is imperative that the implementation includes an examination of the desired expectations and outputs of the system to support comprehensive analysis and reporting. This section of the evaluation evaluates the acquisition, setup, installation, and management of transportation related software.

5.2.1 Observations

5.2.1.1 Routing software & related technologies

The Consortium has been utilizing the *EduLog* routing software program from Education Logistics, Inc. since its inception. Prior to that, the TVDSB was using *EduLog* while the LDCSB was utilizing *BUSTOPS*. The Consortium is using version 10.6, a recent version of *EduLog*. The changeover from *BUSTOPS* to *EduLog* for the LDCSB occurred in 2009, and was undertaken to establish a common software platform to support efficient and effective Consortium operations. The contract with Education Logistics stipulates that the Consortium will receive periodic updates and software maintenance, to include annual geocode updates up to 15% of the nodes in place as of installation.

The Consortium utilizes several supporting software products and technologies in addition to the routing software. These include:

- “STAR” – This is an excellent web-based request and complaint tracking system brought into service in advance of the 2010-2011 school year start-up. It provides the ability to accurately log, assign, track, and analyze the quantity and nature of all requests and complaints received by the Consortium whether originating via telephone, email, fax, or the Consortium website.

- Website – The Consortium website offers extensive static information on Consortium operations, most notably the full array of Consortium operating policies, plus access to several interactive web-based applications, including:
 - *Live delays and cancellations tracking* – A link is provided on the website to a separate bus operator-sponsored site where live data is posted regarding bus delays and cancellations. The Consortium works in cooperation with the operators on this website, and is able to access the data posted for analysis, reporting, and compliance monitoring.
 - *Eligibility check* – A link is also provided to an *EduLog* add-on software utility whereby a user can determine transportation eligibility for any address, school, and program combination throughout the Consortium service area.
- Website “Portals” – Password protected access is provided to three distinct website portals for parents, schools, and bus operators. Unique and targeted content is provided in each portal. Collectively, these provide a primary mechanism for information access and dissemination. Parents can access their students’ transportation details, decline (opt out of) bus service, or submit an EpiPen disclosure form. Route information is updated daily from the latest *EduLog* data. Schools can access route information in batch form for their specific students, and track or report on-bus incidents. Bus operators can access current route data, including run reports that provide rosters, stop locations, and stop times. They can also initiate and track on-bus incidents and report accidents. These portals provide outstanding access to large volumes of accurate and current system data, minimizing the need for direct telephone or email contact while protecting privacy, and limiting access to only relevant information to each user group.

In addition to these valuable applications, the office telephone system provides voice and facsimile access to all stakeholders via a main telephone number plus extension system, a separate fax number, and a direct line “back door” number for direct access by bus operators and for private callers. Additional supporting technologies in use also includes email, project management software that is used for comprehensive project planning and management of the Consortium (such as for the annual route planning cycle), a suite of office productivity software available to all staff, a file server, and a web-based financial reporting system.

Overall, the collection of software and technology tools in use by the Consortium is broad and appropriate. The review indicates extensive use of the installed technology by staff, users, bus operators, and other system stakeholders. The installed base of routing software and related technologies provides an excellent foundation for Consortium operations and management.

5.2.1.2 System backup and disaster recovery

The Consortium internal procedure statement “Emergency & Recovery Plan” addresses all aspects of data backup and recovery plus emergency action plans should the STS offices become unavailable. Key aspects of the plan include:

- Remote data backup and data storage for all systems is provided by contract service providers, including the TVDSB and private contractors for different elements of technology.
- Daily backups are performed with weekly offsite data removal.
- Remote access to key systems (*EduLog*, *STAR*, email) is available from any internet-enabled computer.
- Alternate work site have been identified in case the Consortium offices cannot be accessed.
- Forwarding of telephone lines to a contract call center is provided in the case of emergencies.

The Consortium’s procedure is comprehensive, complete, and appropriate to the needs of the organization.

5.2.1.3 Staff training

The Consortium utilizes an integrated approach to staff training that ensures all key Consortium responsibilities are assigned to qualified and appropriately trained staff members. The basis for

determining training requirements is a “Core Competencies” document that describes the skills required for each position in the organization, and that establishes primary assignment of responsibilities to specific individuals. Two alternate staff members are also identified for each responsibility. This document also tracks the training and skills compliance for each person in the organization. A section of the skills tracking is specific to basic and advanced *Edulog* training. This document indicates that all specialists have received at least the basic *Edulog* training, and some have received one or two advance courses in the past 18 months. The approach is specific, comprehensive, and ensures that the Consortium retains the skills and competencies necessary to continue successful operations even as staff turnover occurs.

5.2.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

5.2.2.1 Website portals provide exceptional and targeted access to information

The three website portals provide a conduit for the Consortium to push critical data and information out to the users and stakeholders in the transportation system. This, in turn, facilitates the ability for every stakeholder to access the accurate, current, and targeted information they require at any time. Simple processes and automated links to the source data allow the Consortium to maintain the currency of the information on the portals, ensuring their continued relevance and minimizing the operational burdens associated with information transfer via direct telephone and email contact with staff.

5.2.2.2 Training protocols ensure that staff skills are maintained

The methodologies and mechanisms used for tracking and documentation of staff skills and competencies are excellent. The practice of assigning specific job responsibilities to each staff member plus alternates, associating skills and training requirements to each responsibility, and tracking the achievement of these skills via targeted training and record keeping provides an ongoing mechanism to ensure that staff is competent in their positions. Of particular value is the ability to utilize this mechanism to ensure that overall skill levels do not degrade as staff turnover or unexpected absences occur.

5.3 Digital map and student database management

An accurate digital map is paramount to support effective route planning and also the effectiveness of the staff and the efficient use of the fleet. This aspect of the E&E Review was designed to evaluate the processes and procedures in place to update and maintain the map and student data that forms the foundation of any student transportation routing system.

5.3.1 Observations

5.3.1.1 Digital map

There is a single digital map that covers the entire three-county service area. The map was digitized and provided to the TVDSB with the original installation of *Edulog*, and predates the creation of the Consortium. There is no regular electronic update of the map data. All updates, corrections, and additions are entered manually by Consortium staff assigned with this collateral responsibility. Access to *MARIS*, the geocode maintenance module of *Edulog*, is restricted to the primary and alternate staff assigned with map maintenance responsibilities. A clearly documented internal procedure statement “Process for Modifying Geocode in Planning Software” governs these processes.

The Consortium is on mailing lists and maintains regular contact with representatives of the municipalities within the service area. The Consortium receives updated map information for new subdivisions, road changes, etc. through these mechanisms. The format of the map data within *Edulog* does not easily support regular substitution or addition of electronic map data. Given this, the processes and procedures utilized by the Consortium to maintain the map are appropriate.

5.3.1.2 Map accuracy

911 system addressing is available throughout the service area and is reflected on the digital map. All school locations are properly indicated on the map. Current data indicate that 99.5% of all student records are accurately matched to the digital map, which is indicative of a highly accurate map.

There is also a contractual feedback loop provided via the route reconciliation process to improve map accuracy. Contracts require bus operators to test each run and route, and provide information on any inaccuracies to the Transportation Specialists in the Consortium. Differences are reconciled as either

mapping errors (road speed errors, loading time, route paths, etc.) or through operational discussions and on-road observation. Required map changes are handled via internal processes as described above.

5.3.1.3 Default values

Road speeds default values for the electronic map were set originally by *Edulog* when setting up the system. These settings are now maintained by STS staff and can be manually changed for each specific segment based on feedback from bus operators or municipalities (as described previously), or for groups of road segments based on the type of road. There was a considerable effort expended in the improvement of map settings prior to the 2009-2010 school year, which was the first planning cycle where STS was fully responsible for routing.

Other settings include planning elements such as student default loading times at stops, and geographic boundaries established for schools and other purposes. The Consortium utilizes *Edulog* default load times for students, but makes manual adjustments for each individual bus run as required or indicated by operator feedback. There are three unique types of boundary areas established on the map for each school building and grade (panel) combination, as applicable:

- *Attendance* – This boundary establishes the board-designated attendance boundary for the school.
- *Walk* – This boundary defines the distance-based walk zone for the school & grade combination.
- *Hazard* – This boundary(s) defines the areas within the walk zone that are designated as hazardous.

The *Edulog* system utilizes these boundaries in conjunction the students' service address to calculate transportation eligibility. The data indicate that these boundaries accurately reflect transportation eligibility.

5.3.1.4 Student data management

Student data is transferred directly from the student information systems in use at the two Member Boards (TVDSB utilizes Trillium; LDCSB utilizes ESIS). The transfer is conducted via data files extracted from these systems and uploaded into *Edulog*. There is no direct real-time link between the systems, but the Consortium is able to initiate the transfer process by pulling the automatically generated data extract files from each board's FTP site. A full extract of data is retrieved and loaded into *Edulog* weekly throughout the year. An "adds, changes, deletes" extract is retrieved and loaded daily.

The *Edulog* student database contains all students from both Member Boards, whether eligible for transportation or not. The control point for ensuring the accuracy of student data (not just addresses) is established at the school level via policy (see policy statement "Responsibility of the School Principal and Designates"). Transportation Specialists are each tasked with the responsibility to run various daily exception reports within *Edulog* that identify addressing and other student data errors (see "Transportation Specialist Duties List for Bus Route Maintenance in Planning Software Program"). These error lists are also "pushed" out via the School Portal (see description of web portals above) for corrective action. It is the responsibility of the school to view and act upon this list daily. These practices establish an appropriate division of responsibility and accountability for student data accuracy, and ensure that constant attention is placed on maintaining the accuracy of this critical planning database.

The annual student grade rollover is handled within the student information systems, consistent with the protocol to maintain control of student data at that level. The Consortium relies on the accuracy of the student data provided by the Member Boards. The rollover generally occurs in April, and includes new JK/SK registrants and deletes grade 12 graduates. Once the rollover is available, the Consortium opens a new *Edulog* database and loads the new student database there. The weekly data extracts are then loaded into the new database, which is used to plan the following year's bus routes. The Consortium maintains the old database with daily additions, changes, and deletes through the end of the school year. At that point the old database is frozen and archived, and the new database becomes the live database for planning and operations for the following school year. This is a concise, timely, and appropriate process for administering annual student database changes.

5.3.1.5 Coding structures

The Consortium utilizes a concise, relevant, and comprehensive hierarchical coding structure for regular education students. First, the student record is associated with a school, which in turn provides a Member Board affiliation. Then, *Edulog* utilizes the student's address and the school boundaries (see description

above) to calculate transportation eligibility and assign one of four possible system eligibility codes. The system can also assign a user code to indicate certain exceptions. Then, Consortium staff assigns one of 11 user codes to refine and further define the student's transportation status, if applicable. Special needs and specialized program students follow the hierarchical structure described above, but with two additions. First, they receive one of two specialized transportation codes. Then, if needed, they receive any combination of 16 specific indicators for specialized services (e.g., wheelchair or harness) that may be required.

This is an excellent approach to student coding which provides the ability to analyze and report on relevant subsets of students without becoming overly burdensome or difficult to interpret. Table 7 illustrates the hierarchical characteristics of the approach, and some of the valuable information available through this coding structure. Level 1 summarizes the system eligibility code for all transported students. From this we see that 2,045 students are transported from outside their school's attendance boundary or within the school's walk zone (non-transportation zone). Level 2 summarizes the user defined eligibility code assigned to these 2,045 students. From this we can glean that 1,327 do not have a user defined code assigned (automatically assigned to code 99). Level 3 breaks down these students. From this we see that these are special needs students. This leaves just 66 students, or 0.1 percent of all transported students without accurate coding to describe their transportation eligibility.

Table 7: Breakdown of transported students

| Level 1 - All Transported Students | |
|--|--------------------------|
| System Eligibility Codes | Count of Students |
| 0 - Eligible | 43,535 |
| 1 - Eligible due to a hazard | 3,131 |
| 12 - Outside attendance boundary | 1,705 |
| 13 - Within non-transportation boundary | 340 |
| <i>Total transported students</i> | <i>48,711</i> |
| <i>Transported with code 12 or 13</i> | <i>2,045</i> |
| Level 2 - Transported out of boundary or inside walk zone (code 12, 13) | |
| User Eligibility codes | Count of Students |
| 7 - First Nations Reserve | 4 |
| 8 - Out of District | 24 |
| 15 - Board Approved | 45 |
| 16 - Grandfathered | 33 |
| 17 - STS Identified Eligible not Using | 2 |
| 19 - Shared Custody Approved | 2 |
| 20 - Alternate Stop Approved | 10 |
| 21 - Choice of School Approved | 597 |
| 88 - unknown code | 1 |
| 99 - Default code - no value assigned | 1,327 |
| <i>Total (ties back to Level 1)</i> | <i>2,045</i> |
| Level 3 - Transported without user defined eligibility code (default code 99) | |
| Default Code 99 | Count of Students |
| Special Education flag set to "Yes" | 1,261 |
| Unexplained eligibility | 62 |
| Unexplained eligibility - not assigned to run | 4 |
| Total unexplained / error records | 66 |
| <i>Unexplained eligibility - percent of total transported</i> | <i>0.1%</i> |

In addition to student coding, the STS has established a structured coding methodology to clearly identify schools, runs, and routes. Schools are identified by a four number identifier, with the leading digit indicative of the Member Board (1-2 for TVDSB, 5-6 for LDCSB). Bus runs utilize significant numbering to facilitate identification by Member Board and panel, as well as by run type (regular/specialized, to/from).

Bus routes utilize significant numbering to identify the bus operator and county of operation. Bus routes are also coded with a series of “flags” to indicate the nature of the route (e.g., “double run” or “extended”). Transfers are identifiable within the system by means of bus stop coding. Much of the analysis described in the Analysis of System Effectiveness section below was facilitated by this coding structure.

There is no specific coding for courtesy riders in the system, and policies are silent as to practices normally attributable to courtesy ridership (e.g., space available seat assignments, temporary transportation arrangements). However, Choice of School students and students being transported under a board directive or grandfathering are identified with designated user eligibility codes. As discussed in the Policies and Practices observations, there is some transportation provided to Choice of School students, which are reported as courtesy in the Ministry of Education annual survey.

5.3.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

5.3.2.1 System coding structure

The Consortium’s coding for students, schools, runs, and routes strikes an excellent balance between utility, relevance, detail and accuracy. The structure captures an appropriate level of detail to support the analytical and reporting requirements of the Consortium but is simple enough to pose a minimal administrative burden. Lists of codes are brief and targeted, which promotes the accurate assignment of codes. This produces a highly useful database of information that will support future analyses focused on continuous improvement of efficiency and effectiveness.

5.3.3 Recommendations

5.3.3.1 Review system default settings

While the effort expended to date on improving system operating default values is recognized and acknowledged, anecdotal information was received during the onsite portion of the review to indicate that a coordinated and comprehensive update of system default setting would improve map accuracy and overall performance of the system. This is particularly important in light of the recommendation to provide more detailed run and route information, including left-right directional data, to bus operators (see Recommendation 4.2.3.3 above) as the underlying default values for road speeds, load times, etc. will greatly affect the accuracy of this information. The Consortium should undertake to review all system default settings to ensure that they accurately represent real-world operating conditions.

5.3.3.2 Enhance system coding

The overall coding structure is excellent, but would be further enhanced with the ability to easily identify additional planning characteristics associated with individual bus runs and routes. This includes whether the run or route is shared among the Member Boards, whether it is a combination run (see definition in Analysis of System Effectiveness section below) serving multiple school locations, and whether it incorporates transfer students. The Consortium should explore mechanisms to expand and enhance its current coding structure to add these capabilities.

5.4 System reporting

A key benefit of modern routing software is the ability to quickly gather, collate and analyze large data sets. These data sets can then be used to communicate a wide variety of operational and administrative performance indicators to all stakeholders. Actively using transportation data to identify trends that may negatively impact either cost or service, and communicate both expectations and performance is a key component of a continuous improvement model. This section will review and evaluate how data is used to evaluate and communicate performance and assess organizational competencies in maximizing the use of data retained in the routing software and related systems.

5.4.1 Observations

5.4.1.1 Reporting and data analysis

The Consortium has defined an extensive series of standard reports within the *Edulog* software that are extracted on both an as needed and a scheduled basis. The reports are organized functionally as well as by user name. Each Transportation Specialist has a list of reports that are customized for their individual geographic area of responsibility. A schedule (defined in “Transportation Specialist Duties List for Bus Route Maintenance in Planning Software Program”) is established whereby each specialist is required to run certain exception reports as part of their day-to-day activities. Other reports, such as those used to

generate the Consortium's Key Performance Indicators (KPI) are run on an as-needed basis or periodically by assigned staff.

Other than the KPIs, which are generated from data within *EduLog* and reported to the Board of Directors periodically, the reports from *EduLog* are generated for internal Consortium use only. Other reports and data from the system are regularly extracted, however, and used to generate the reports in each of the website portals (see discussion above and in the Policies and Practices section). This is the primary means of reporting utilized by the Consortium to communicate and report to its stakeholders on a regular basis.

The Consortium managers and senior specialists demonstrate that they regularly extract data from *EduLog* and other systems (STAR, incident reporting) for use in calculating performance indicators and analyzing system performance. Most of the reports discussed previously have been custom developed by Consortium staff or by *EduLog* staff. The overall use of reporting and data analysis throughout the Consortium is excellent.

5.4.1.2 Performance measurement

The Consortium has established a concise, manageable set of key performance indicators that will be calculated and reported to the Member Boards on a regular basis. These have been presented for the first full year of consolidated Consortium operations (2009-2010), and will be repeated and tracked over time in future years. In addition, the Consortium regularly extracts data for analytical purposes and to plan for the ongoing improvement of system efficiency and effectiveness. This program of performance measurement is in keeping with the expectations of the E&E process.

5.4.2 Best Practices

5.4.2.1 Use of reporting

The Consortium's comprehensive and integrated approach to data extraction, analysis, and reporting promotes excellent information availability and a culture of continuous improvement. The push of information out through the web portals combines with the regular reporting of highly relevant key performance indicators, and a host of defined and readily accessible and useful internal operating reports. Collectively, the setup and approach to reporting enhances the Consortium's ability to continually monitor and improve upon system performance.

5.5 Regular and special needs transportation planning and routing

Effective route planning is a key function of any high performing transportation operation. This section of the report evaluates the processes, strategies, and procedures that are used to maximise the use of the fleet, control costs while delivering a high level of service to students using each mode of transportation.

5.5.1 Observations

5.5.1.1 Bus route planning and management

As an entity, the Consortium has only gone through two complete annual planning cycles. It was reported that the focus was different for each of these two cycles. The first (for the 2009-2010 school year) was focused on integrating the two Member Boards' route schemes to achieve efficiency. This occurred even as the Consortium was consolidating operations and staffing. Following a difficult start to the 2009-2010 school year, the focus shifted to ensuring a positive start to the 2010-2011 school year, and deemphasized the search for further efficiencies although this was not ignored as a goal. This is particularly true as the impact of boundary realignments and school closures were considered throughout the planning process for the 2010-2011 school year.

Modification and maintenance of the existing system of bus runs and routes is the responsibility of the Transportation Specialists. An established protocol exists for when and how these modifications are made, and is codified in "Transportation Specialist Duties List for Bus Route Maintenance in Planning Software Program" and the internal operating procedure "Selection of Bus Stop Locations". There is also an internal procedure statement "Route / Run Planning and Modifications to Existing Routes" that provides additional guidance.

The annual route planning cycle coincides with the student data rollover and database setup described previously. The Consortium has defined a team-based, project-oriented approach to route planning within the annual cycle. Specialists are assigned to work together, and with senior specialists and managers on

achieving pre-defined objectives. The entire system has not, and will not be reviewed or redesigned annually, but there will be an ongoing evaluation of the entire system segment by segment.

The planning cycle (see discussion in Policies and Practices section) and organization of Consortium staff is designed to promote the use of the software to find additional system efficiencies moving forward. The Consortium policy on bell time management, the full integration of Consortium staff and operations, and the reporting and governance structure for the Consortium are designed to facilitate and allow the Consortium to pursue this approach in future planning cycles.

There is a comprehensive “Specialized Transportation Guide” for the internal use of staff. This guide provides all of the forms, and describes all of the processes associated with the planning of specialized transportation. Nothing in policy prohibits the inclusion of special needs students on regular bus runs, and this is done to the extent feasible. Prior to 2009-2010, specialized transportation was not shared between boards. Current planning protocols promote this where operationally feasible.

5.5.1.2 Analysis of system effectiveness⁸

Current route, run, student, and bell time data was extracted from the *Edulog* system to analyze system effectiveness. Table 8 summarizes the average capacity utilization across all 3,070 individual bus runs that comprise the STS transportation network. These calculations were completed using the planned maximum loads for each bus run, defined as the “max load” allowable by the Consortium. The results are broken down for regular and special needs bus runs in both the morning and afternoon run series.

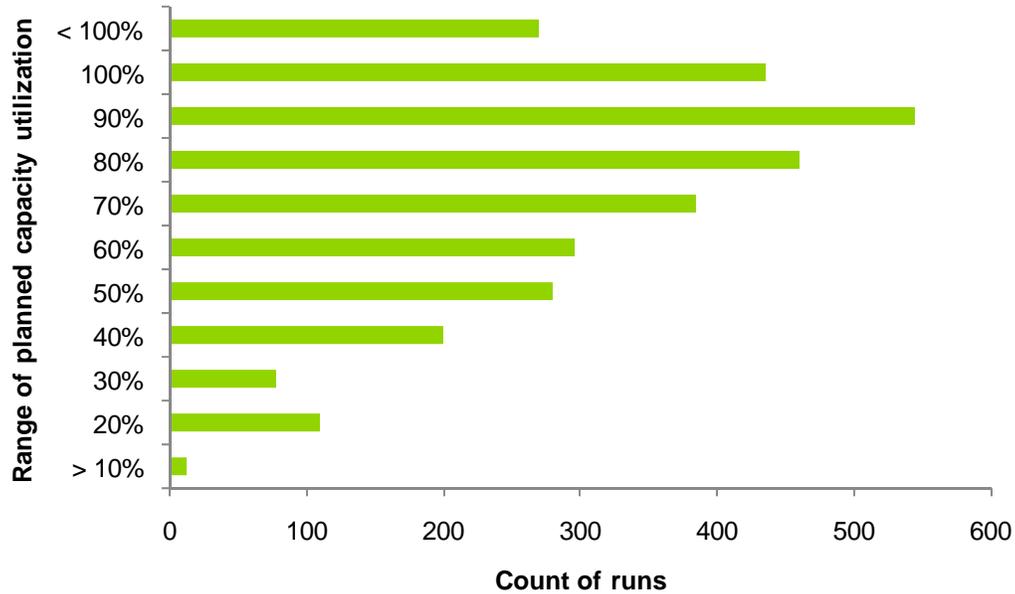
Table 8: Average capacity utilization

| Planned capacity utilization | | |
|------------------------------|----------------------------|----------------------|
| <i>Run Type</i> | <i>Average Utilization</i> | <i>Count of Runs</i> |
| 0 - Regular Morning Runs | 75% | 1,072 |
| 1 - Regular Afternoon Runs | 76% | 1,072 |
| 6 - SpecEd Morning Runs | 64% | 448 |
| 7 - SpecEd Afternoon Runs | 63% | 448 |
| System-wide Averages | 72% | 3,070 |

Overall levels of capacity utilization are excellent. Figure 7 illustrates that capacity utilization is fairly consistent across the entire system, which is an impressive result given the variability in geography throughout the service area.

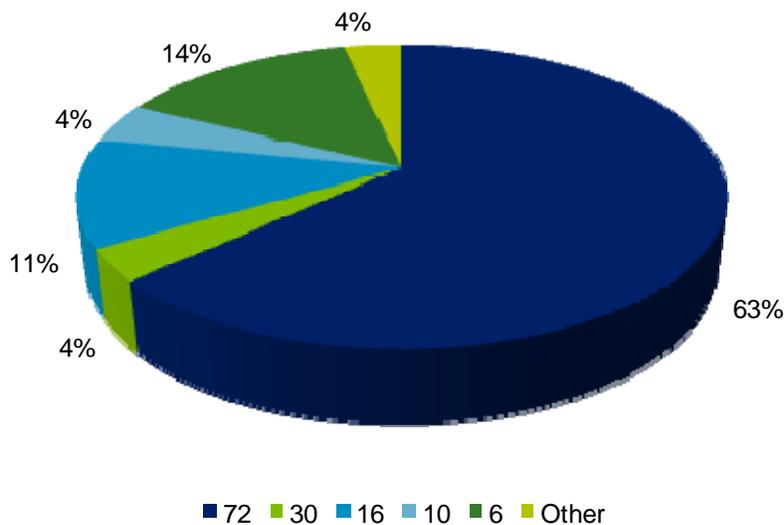
⁸ All data reported in this section of the report refers to data collected while the E&E team was on site. There may be inconsistencies with some previously reported Ministry data due to the different timing of the data collection.

Figure 7: Count of runs by range of capacity use



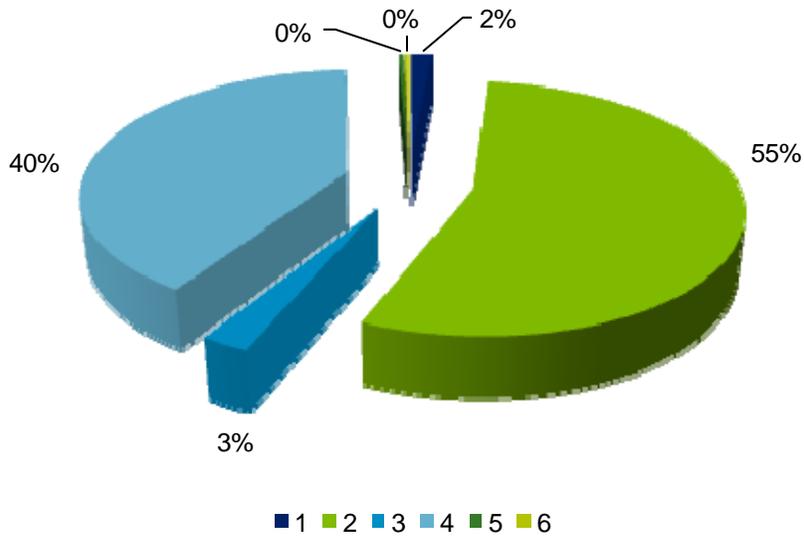
High levels of capacity utilization, particularly in the special needs area, is achieved partially through the use of numerous small vehicles to serve this population. Figure 8 illustrates the proportion of runs serviced by different vehicle types. As shown below, 14 percent of all runs are serviced by small six passenger vans, and that nearly 30 percent are serviced by vehicles with a capacity of 16 passengers or less.

Figure 8: Runs by bus size



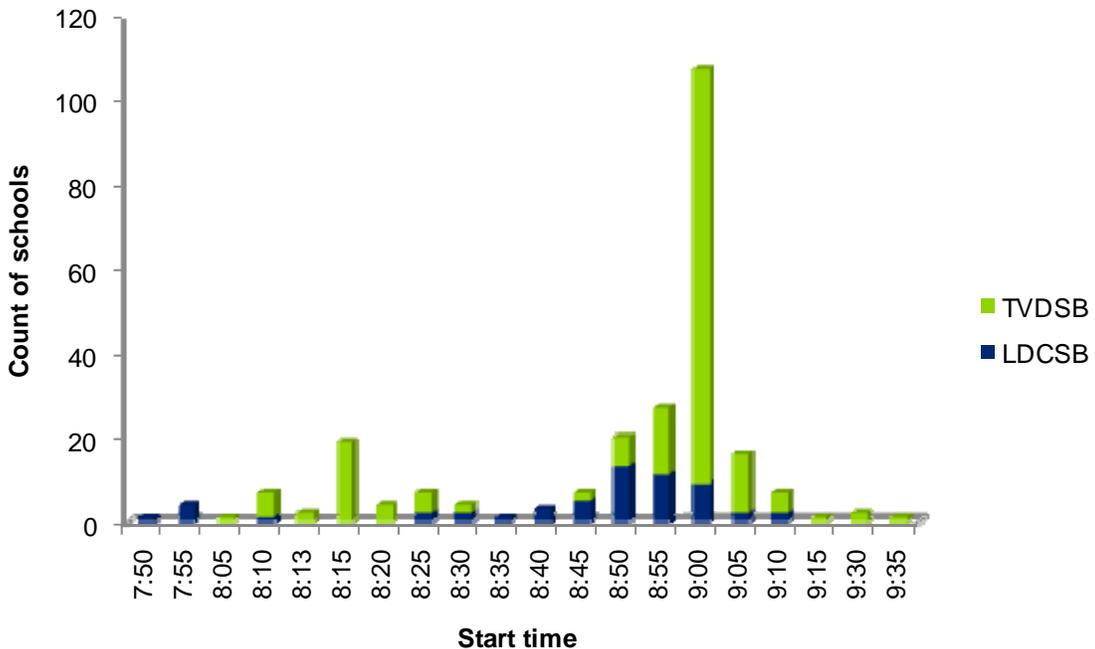
Of equal importance to capacity utilization is how effectively the system reuses each individual bus over the course of the service day. Figure 9 illustrates the proportion of the bus fleet accomplishing multiple bus runs each day. Two runs per day imply that the bus is accomplishing just one morning, and one afternoon bus run. Four per day implies that the bus is accomplishing two morning and two afternoon runs (“double run” or a “two tier” route). Analysis shows that 55 percent, or a majority, of the fleet, is accomplishing just one morning and one afternoon run, and 40 percent is performing a double run in each period.

Figure 9: Percent of routes with single or multiple runs



The ability to accomplish double or triple run bus routes is greatly affected by the ability to coordinate school bell times across the service area. Figure 10 illustrates the range of current school start times by Member Board. The ability of the Consortium to increase the number of runs performed by buses each day is severely hampered by bell times clustered together, as 70 percent of all schools start within a 15 minute span of time around 9:00 AM.

Figure 10: Count of schools by start time



The illustration in Figure 10 is skewed somewhat in the sense that the number of schools starting at each time slot is not indicative of the actual number of students being transported at these times. A smaller number of secondary schools, for example, will account for as much transportation demand as a higher number of elementary schools. The effect on efficiency of the clustering in school start times therefore becomes more apparent in an examination of the students being transported to schools at each time interval.

Figure 11 shows the number of students being transported to schools, with start times represented in 15 minute time intervals. The clustering around 9:00 is still apparent with 21,000 students, nearly one-half of the total, being delivered to schools in the 15 minute span between 8:45 and 9:00. We also see, however, that a nearly equal number (more than 19,000) are delivered to schools starting between 7:45 and 8:45. This even distribution across the earlier time range prevents many of the buses utilized for service to these schools from being reutilized for a second run to the schools beginning in the 8:45 -9:00 time slot.

This is further illustrated by the actual deployment of the bus fleet. Figure 12 illustrates the number of buses in use actively carrying students at each five minute interval during the two core hours of the morning transportation period. The build-up in the number of buses actively deployed that occurs as a result of the spread in morning start times is apparent, as is the compression that occurs due to the clustering around the 9:00 time period. It is nevertheless possible to glean two distinct peaks in deployment, which is indicative of a two-tier system where a substantial number of buses perform double routes. This peak use is indicative of the total number of buses required to operate the system. These peaks would become more distinct if the compression that begins prior to the 9:00 timeframe could be further spread out. The height of the peaks would also be lowered in magnitude, representing a decrease in the number of buses required to operate the system as a result of assigning additional runs to existing buses.

Figure 11: Students transported by school start time

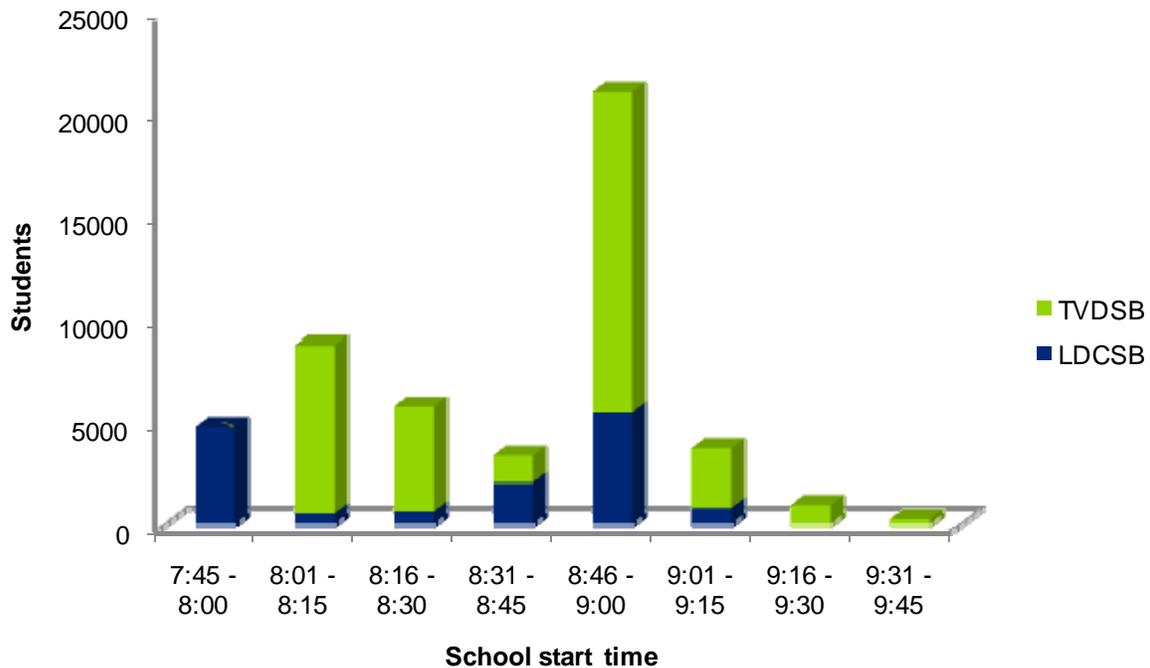


Figure 12: Morning fleet deployment

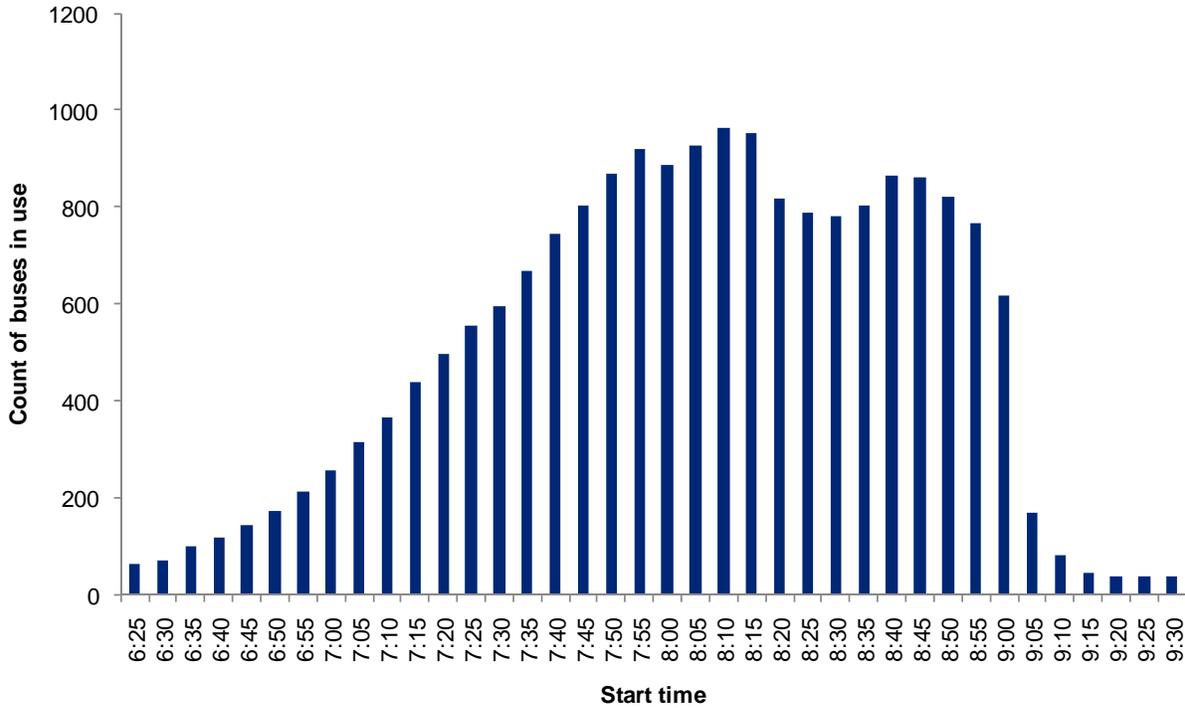


Figure 13, Figure 14, and Figure 15 repeat the same presentation for the afternoon school dismissal and transportation period. School dismissal times are even more spread out than morning start times, but the same basic pattern emerges. There is a peak demand apparent at the 3:30 PM dismissal time, with 21,000 being released from school in the 15 minute interval between 3:16 and 3:30 PM. However, more than 22,000 are released in the intervals leading up to 3:15 PM, and the school dismissal times are more clustered and farther separated from the 3:30 PM peak than in the comparable morning pattern. The result is a more even distribution in the utilization of the bus fleet leading up to the afternoon peak deployment that is apparent immediately after the 3:30 PM dismissal time.

Figure 13: Count of schools by end time

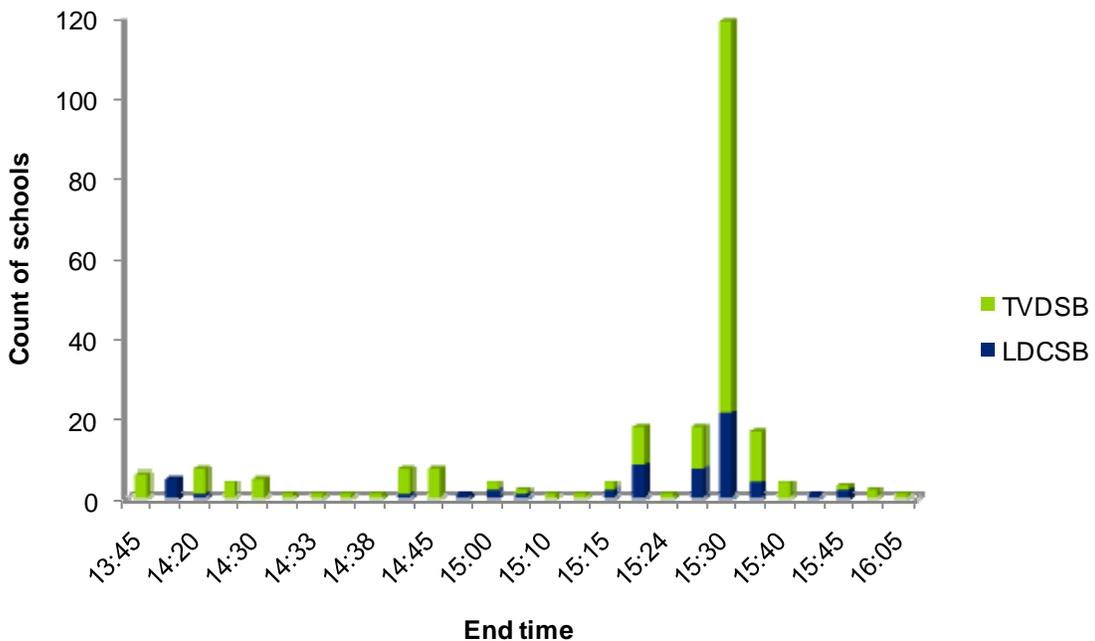


Figure 14: Students transported by school end time

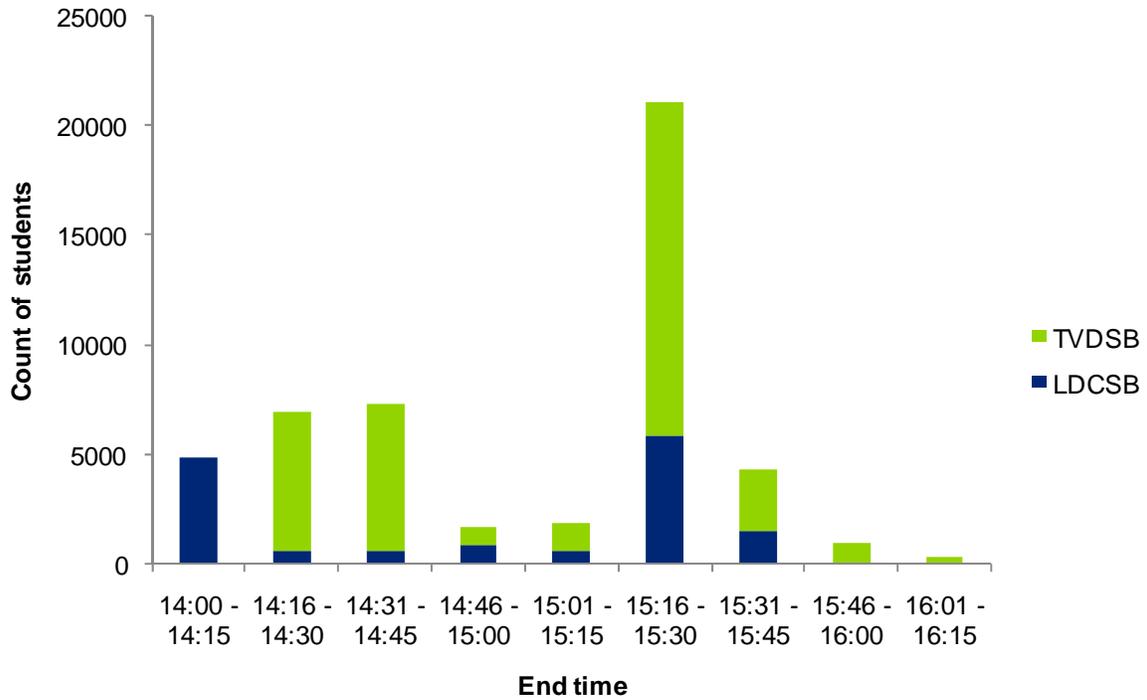
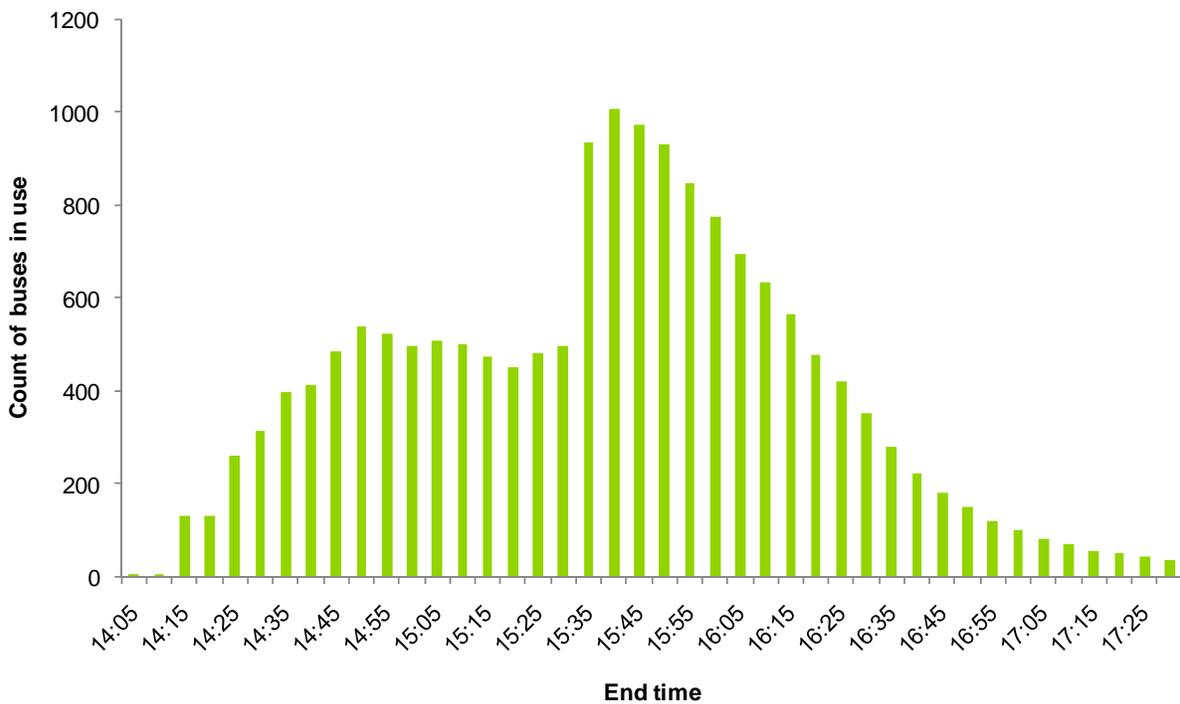


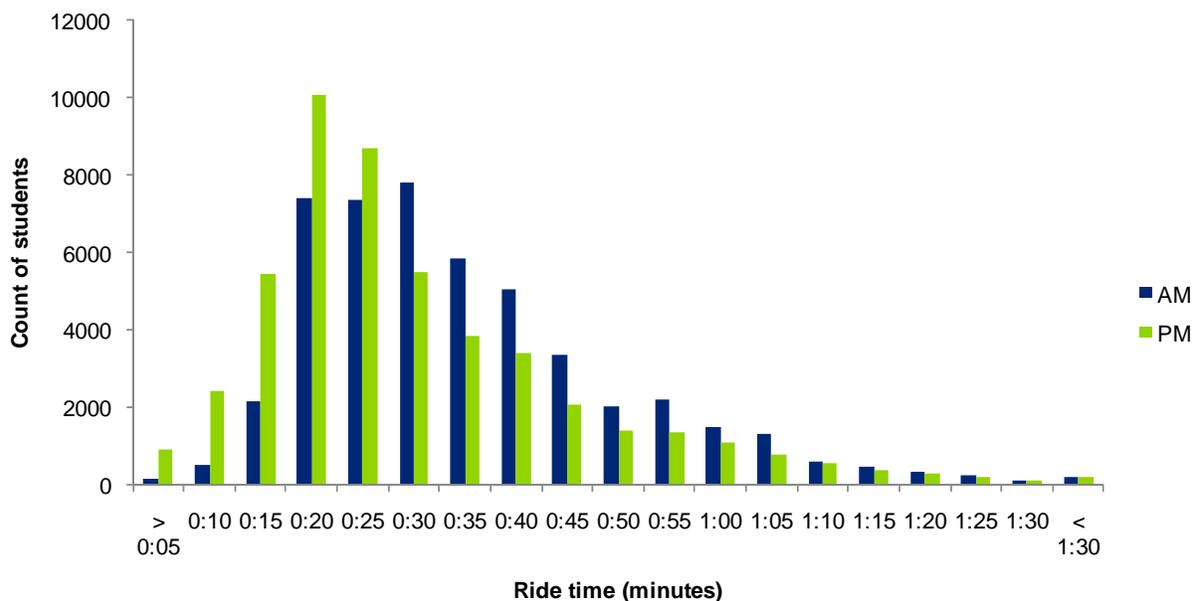
Figure 15: Afternoon fleet deployment



Maximizing capacity utilization and asset utilization (the number of runs performed each day) are the key factors leading to an efficient system. The discussion above indicates an opportunity to improve on current results through a more systemic coordination of school bell times. Efficiency, however, must be balanced by the quality of the service delivered. Measures of service effectiveness must include an evaluation of student pickup and delivery times relative to any school bell time changes being contemplated.

Student ride times represent another key factor in determining whether a system is effective. If, for example, high levels of capacity utilization are being achieved by making individual bus runs exceedingly long, then an inappropriate balance is being struck between efficiency and effectiveness. Figure 16 illustrates current student ride times in ranges for both the morning and the afternoon. Fully 97 percent of students meet the 70 minute ride time standard in the morning, and 98 percent in the afternoon. The average ride time is approximately 30 minutes, and the distribution is even across the entire range. In combination with high levels of capacity utilization, this is an excellent result.

Figure 16: Count of students by ride time



A final factor in the evaluation is the degree to which service is being actively shared among the Member Boards. Currently, there are 479 combination runs in the system. These are individual bus runs that serve students from more than one school on the same run. Of these, 238 serve schools from both Member Boards. This is 50 percent of all combination runs, but just eight percent of the 3,070 bus runs system-wide. These shared bus runs are assigned to 118 different bus routes. An additional 40 bus routes have double runs whereby at least one school is serviced from each of the Member Boards, for a total of 148 of 1,081 bus routes (14 percent) where some degree of sharing occurs. The absence of significant bell time coordination across the service area largely prevents additional sharing at this time.

5.5.2 Recommendations

5.5.2.1 Analyze the impact of additional bell time coordination on routing efficiency

Bell time coordination can have a dramatic impact on the overall efficiency of a route network. With high levels of capacity utilization already in place, and reasonable average student ride times that meet or exceed the standards established by policy, achieving higher daily utilization of each vehicle asset in the fleet is the area that can yield additional efficiencies. The Consortium should undertake a comprehensive analysis to determine the optimal coordination of school bell times across the entire system that will yield the highest possible system efficiency. This must be gauged against the service quality implications associated with the changes and an appropriate balance achieved. The proposed coordinated approach should be presented to the Member Boards for action in accordance with the opportunity indicated by the results of the analysis and the Consortium’s existing bell time policy.

5.6 Results of E&E Review

Routing and technology has been rated as **Moderate-High**. The setup and use of technology to support Consortium operations is extensive and impressive. All of the key foundational elements are in place to promote a culture and process of continuous improvement throughout the organization. Efforts to improve system efficiency and effectiveness undertaken to date have yielded excellent results with high levels of capacity utilization and service effectiveness. A significant opportunity must still be explored, however, to coordinate school bell times across the service area.

6 Contracts

6.1 Introduction

The Contracts section refers to the processes and practices by which the Consortium enters into and manages its transportation and other service contracts. The analysis stems from a review of the following three key components of Contracting Practices:

- Contract structure;
- Goods and services procurement; and
- Contract management.

Each component has been analyzed based on observations from information provided by the Consortium, including information provided during interviews. The analysis included an assessment of areas requiring improvement that were informed by a set of known best practices identified during previous E&E Reviews. These results are then used to develop an E&E assessment for each component. The E&E assessment of contracting practices for the Consortium is as follows:

Contracts – E&E Rating:

Moderate

6.2 Contract Structure

An effective contract⁹ establishes a clear point of reference that defines the roles, requirements, and expectations of each party involved and details the compensation for providing the designated service. Effective contracts also provide penalties for failure to meet established service parameters and may provide incentives for exceeding service requirements. Contract analysis includes a review of the clauses contained in the contract to ensure that the terms are clearly articulated, and a review of the fee structure is conducted to enable comparison of its components to best practice.

6.2.1 Observations

6.2.1.1 Bus operator contract clauses

The Consortium has generally standardized contracts with all of its bus operators; all contracts were executed prior to September 1, 2010 and are valid until August 31, 2010. The contracts also provide two one-year renewals, that can be exercised solely at the Consortium's discretion and provide the Consortium with the power to enter into negotiations to adjust rates, terms and conditions.

Noteworthy clauses in the contract outline:

- Training and safety requirements:
 - For new drivers, this includes: sensitivity for students with special needs, diversity training, basic first aid (including EpiPen and CPR), customer service, defensive driving and accident reporting, and management of student conduct and reporting procedures;
 - Existing drivers partake in an annual course that reviews: management of student conduct and reporting procedures, human rights and sensitivity training, evacuation procedures, EpiPen training, and bus driver responsibilities;
 - Existing drivers partake in an advanced refresher course every three years, which covers defensive driving and first aid training; and

⁹ The word Contract in this context refers to detailed documents outlining the scope of services, rates and expected service levels. The phrase Purchase of Service agreement is used in this report to describe a less detailed document that only outlines the services to be provided and the rates at which they are to be provided.

- Discussions with the operators indicate that training is provided by an operator association, the Western Ontario School Bus Association (“WOSBA”); this training is offered throughout the year, to accommodate driver schedules.
- Price adjustments resulting from fuel escalation or de-escalation events;
- Requirements for compliance with Consortium and Member Board policies and procedures and with federal and provincial legislation (the contract provides a non-exhaustive list in an attached schedule);
- Requirements for a vehicle spare ratio of ten percent, in the case of breakdowns or delays;
- Requirements for maximum and average vehicle ages. (It should be noted that the Consortium’s requirements for maximum and average vehicle ages exceeds the the provincial average of 12 years which is considered a best practice;
- Payment schedules and fee structures, including the basis for payments, the calculation of payments, and adjustments due to delays, inclement weather, and labour disruptions;
- Dispute resolution procedures that encompass negotiation, mediation, and then binding arbitration;
- Provisions for video surveillance on vehicles (i.e., 10% of vehicles must be equipped with video surveillance that complies with Consortium and Member Board policies and guidelines) and for the Consortium’s right to inspect mechanical logbooks and mechanical fitness reports, as required;
- Provisions for performance standards and enforcement of contract terms, including the Consortium’s right to request documents for review, visit and inspect all aspects of an operator’s premises, route audits, and mechanisms to follow up on performance failures; and
- Other terms related to: route determination and communication, confidentiality requirements, and termination provisions.

Safety training is provided by the operators, who are licensed to provide driver training and safety training in the Province of Ontario. New drivers are provided with: basic first aid training that covers cardiopulmonary resuscitation and anaphylactic shock recognition and treatment, defensive driving and accident reporting training, and customer service training, among others. Experienced drivers take a refresher course annually, with a comprehensive course every three years.

Operators with good performance are rewarded, when possible, with the allocation of additional routes.

6.2.1.2 Bus operator compensation

Discussions with the Consortium indicate that while the operator contracts are generally standardized, compensation rates and vehicle age requirements are a result of negotiations between the Consortium and each individual operator; this is a change from past practice, when the Consortium would negotiate with WOSBA (an operator association).

Compensation is based upon a total daily rate per route, which reflects kilometres driven and is established from the base rate and vehicle add-ons. The base rate is delineated in an operator-specific schedule attached to the contract. The schedule shows that base rates depend on: whether the route is for an urban area or rural area; the route’s scheduled kilometres; the number of runs; and vehicle type.

The base rate reflects the vehicle cost, peripherals, licensing fees, training costs, spare driver wages, insurance costs, maintenance fees, facility costs, general administration charges, and driver wages.

The contract also outlines special arrangements for unique events:

- Delays caused by inclement weather result in an hourly premium;
- Cancellations caused by inclement weather result in a credit adjustment to the total daily rate; and
- Cancellations due to Member Board labour disputes result in a credit adjustment to the total daily rate, for up to 15 days – after 15 days, the Consortium is not obligated to compensate the operator.

Management expects to simplify its compensation formula to a base plus variable rate construct for next year's contract and has informed operators of this pending change.

6.2.1.3 Taxi operator contract clauses

Discussions with the Consortium indicate that there are no taxi operators at this time.

6.2.1.4 Parent drivers

Discussions with the Consortium indicate that there are no parent drivers at this time.

6.2.1.5 Public transit operator contract clauses

The Consortium provides public transit tickets to a select number of students in keeping with its Use of Public Transit Policy. Tickets are issued to the schools, who distribute the tickets to the appropriate students. The Consortium purchases the tickets from the municipal transit body directly and receives no discount.

6.2.2 Best Practices

It is recognized that the Consortium has demonstrated best practice in the following areas:

Standard contracts

While the Consortium negotiated individual financial agreements with its operators, each contract was standardized with respect to the legal, safety and other non-monetary terms. This ensures the contractual relationship between transportation service providers and the Consortium is uniformly defined and enforceable.

EpiPen safety training

The Consortium requires that all drivers be trained to use an EpiPen prior to beginning their work, as all new drivers are required to take a basic first aid course and all experienced drivers take an annual refresher course in the use of EpiPens. This ensures that all drivers are appropriately trained to deal with this type of emergency, should it occur.

Insurance

The Consortium requires operators to provide proof of insurance prior to the start of the school year. This ensures that this important legal requirement is met prior to providing any services

6.2.3 Recommendations

6.2.3.1 Define a vehicle age limit that reflects best practices

The Consortium's requirements for maximum and average vehicle ages are in excess of the provincial average of 12 years considered to be a best practice. The Consortium should consider standardizing and lowering its fleet age requirement as there is an increased risk that older vehicles will require more maintenance and will not include many of the safety features of newer buses. School buses that are older than the Ministry guideline of 12 years may be retained by operators as spare buses.

6.2.3.2 Re-assess the operator compensation formula

We encourage the Consortium to proceed with plans to simplify its compensation formula to a base plus variable rate construct for next year's contract and commend the Consortium for providing notice of the pending changes to the operators. The current compensation formula is unnecessarily complex. The complex formula makes it difficult for operators to calculate their own invoices and difficult for the Consortium to verify. The current operator compensation formula also outlines special arrangements for unique events like inclement weather delays or cancellations and cancellations due to Member Board disputes. While the Consortium receives a credit adjustment, this credit adjustment is applied to the total daily rate, which includes a variable component. It is recommended that only fixed costs (i.e., the base rate) should be paid to the operators during unique events, as costs related to kilometres that are not driven should not be paid by the Consortium.

6.3 Goods and Services Procurement

Procurement processes are intended to provide an avenue by which the Consortium, as a purchaser of services, can ultimately obtain the best value for money. The goal of the Consortium is to obtain high quality service at fair market prices.

6.3.1 Observations

6.3.1.1 Operator procurement

The current operator agreements are the result of individual negotiations. This is a change from past practice, where the agreements were the result of group negotiations between the Consortium and the operator association. The Consortium has communicated, to all of its operators, its intent to move towards competitive procurement. All contracts were negotiated and executed before September 1, 2010.

The Consortium currently works with the WOSBA, on a contract basis, to provide safety training and evacuation training to its Member Boards. Services include, for example, evacuation training and “Buster the Bus”. The agreement sets out the scope of services and the terms of compensation.

6.3.1.2 Special needs transportation

Special needs transportation is procured through the same process used for regular services.

6.3.1.3 Other procurement

The Consortium has purchased call centre services through competitive procurement for the current fiscal year, and is using competitive procurement for the purchase of new route planning software.

6.3.2 Best Practices

It is recognized that the Consortium has demonstrated best practice in the following areas:

Competitive procurement for other services

The Consortium recently used competitive procurement to purchase call centre services. Competitive procurement processes are recognized as the best means to ensure market rate pricing as they allow the purchaser to obtain the best value for money given a defined set of service expectations. The use of a competitive procurement process introduces the business opportunity to a competitive market. We encourage the Consortium to continue using competitive procurement when procuring other services.

6.3.3 Recommendations

6.3.3.1 Continue efforts to implement a competitive process for the procurement of bus operator services

While it is recognized that the Consortium is moving towards competitive procurement for its operator contracts, at the time of the E&E Review, the Consortium had not used a competitive process for the procurement of its operators. We encourage the Consortium to continue working towards competitive procurement for the procurement of bus operator services because it can help the Consortium achieve the best value for its money as operators would be competing to provide the required service levels.

It is also recognized that the Consortium has informed its operators that it will be moving towards competitive procurement and has developed a general implementation timeline. The notice provided to operators of the pending change to procurement practices is considered a best practice. We encourage the Consortium to develop a detailed implementation plan (i.e., with key dates, responsibilities and expectations) and once the Board of Directors has approved this plan, to communicate the key dates to operators.

A competitive process can be used with certain safeguards in place to protect the standards of service. The Consortium should continue to enforce limits placed on the volume of business any one operator can hold to avoid a monopoly situation. Additionally, in evaluating the successful proponents, cost should not be the overriding factor as that will encourage low cost proponents to enter the market while not necessarily ensuring that the same or improved levels of service are being provided. Local market conditions should be considered at all points in the development and evaluation of any service proposal. For example, local operators can be encouraged to participate in this process by placing a value on having local experience as part of the evaluation criteria; however, this specific criterion for local experience should also not be an overriding factor in the proposal evaluation process.

6.4 Contract Management

Contracting practices do not end after a contract is signed. Ongoing monitoring of compliance and performance of contracted service is an important and valuable practice to enhance service levels and ensure that contractors are providing the level of service that was previously agreed upon. Effective contract management practices focus on four key areas:

- Administrative contract compliance to ensure that operators meet the requirements set out in the contract;
- Operator facility and maintenance audits to ensure that operators keep their facilities and vehicles in line with the standards outlined in the contract;
- Service and safety monitoring to ensure that the on the road performance of drivers and operators reflects the expectations set out in the contract; and
- Performance monitoring to track the overall performance of operators over time.

6.4.1 Observations

The Consortium has recently implemented a process to ensure operator compliance with the terms of the contract agreement. The basis for the implementation of this compliance program is a clause in the operator contract that outlines performance standards for the operator and enforcement rights for the Consortium, including the right to request documents for review, to visit and inspect all aspects of an operator's premises, to conduct route audits, and mechanisms to rectify failures.

The documentation associated with the operator audits and route audits detail specific methodologies and audit categories. All operators will be audited annually, and that seven to ten percent of routes will be audited annually. The Consortium will audit every operator at least once a year, but has retained the flexibility for more frequent audits if problems or concerns arise.

6.4.1.1 Bus operator administrative, contract compliance, facility and maintenance monitoring

The Consortium monitors operator contract compliance through on-site visits to the operator's premises, during which the Consortium representative can review documents and inspect the business premises, equipment, and business practices. Operators are generally given short-notice of these visits; however, unannounced reviews have also been conducted.

Operators are scored on: operational management, vehicle and safety standards, communication and organizational standards, training and professional development, and document controls and security.

6.4.1.2 Operator safety and service monitoring

The Consortium has recently formalized a program for the monitoring of operators' on-the-road performance, with a focus on evaluating: driver compliance, basic driving skills, loading / unloading on route, railroad crossings, student control, student bus patrols, equipment, loading / unloading at school, routes, and backing / turnarounds.

Route audits will primarily be conducted by the Transportation Specialists and the Service Development Manager, and will be done randomly but with a focus on ensuring that both rural and urban routes are audited, that routes receiving complaints are audited, and that routes being considered for routing changes are audited. The first route audit was conducted in October 2010.

6.4.1.3 Performance monitoring

The Consortium documents and communicates the results of its operational reviews back to the operators. The Consortium regularly communicates with its operators on issues related to contract compliance, including collection of information such as driver sign-offs, worker coverage, insurance documentation, and fleet age, among others.

6.4.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Operator administrative, contract, facility and maintenance compliance

The Consortium ensures that the information, facility and vehicle requirements outlined in the operator contracts are verified in a timely manner. The Consortium also has the intention to track the performance of operators over time. Such efforts to ensure operator compliance help the Consortium to measure whether the operators are complying with stated contract clauses and, ultimately, if they are providing safe and reliable service.

6.4.3 Recommendations

6.4.3.1 Enhance the operator safety and service monitoring process

The Consortium has recently formalized a program for the monitoring of operators' on-the-road performance through route audits. It is recommended that the Consortium continue with the implementation of this program, and focus on evaluating drivers' route sheet compliance, student safety measure implementation and compliance with traffic regulations.

6.5 Results of E&E Review

The process by which the Consortium negotiates, structures, and manages its contracts for transportation services has been assessed as **Moderate**. The Consortium uses standard contract structures with appropriate clauses and safety requirements and has recently implemented a comprehensive monitoring process. However, the Consortium should strongly consider simplifying the operator compensation formula and continuing its work on implementing competitive procurement for operator contracts, including the development and communication of a detailed implementation plan – this will help ensure the Consortium is better positioned to receive the best value for its money.

7 Funding Adjustment

The Ministry has asked the E&E Review Team to apply their Funding Adjustment Formula to each Board that was subject to an E&E Review in Phase 4. Note that where Boards are incurring transportation expenses in multiple Consortium sites, the Board's adjustment will be prorated for the portion attributed to the consortium under review. For example, if 90% of Board A's expenditures are attributed to consortium A, and 10% of expenditures are attributed to consortium B, the funding adjustment resulting from consortium A's review will be applied to 90% of Board A's deficit or surplus position.

The Ministry's funding formula is as follows:

Table 7: Funding Adjustment Formula

| Overall Rating | Effect on deficit Board ¹⁰ | Effect on surplus Board |
|----------------|---|--|
| High | Reduce the gap by 100% (i.e. eliminate the gap) | No in-year funding impact; out-year changes are to be determined |
| Moderate-High | Reduce the gap by 90% | Same as above |
| Moderate | Reduce the gap by 60% | Same as above |
| Moderate-Low | Reduce the gap by 0% | Same as above |
| Low | Reduce the gap by 0% | Same as above |

Based on the Ministry's funding formula, in conjunction with our E&E assessment of the Consortium, it is anticipated that the following funding adjustments will be made for each Board:

London District Catholic School Board

| Item | |
|---|---------------|
| 2009-2010 Transportation Surplus (Deficit) | \$646,529 |
| % of Surplus (Deficit) attributed to the Consortium | 100 % |
| Revised amount to be assessed under the Consortium | \$646,529 |
| E&E Rating | Moderate-High |
| Funding Adjustment based on Ministry's Funding Adjustment Formula | 90% |
| 2010-2011 Total Funding adjustment | \$ 0 |

Thames Valley District School Board

| Item | |
|---|----------------|
| 2009-2010 Transportation Surplus (Deficit) | \$(1,066,526) |
| % of Surplus (Deficit) attributed to the Consortium | 100 % |
| Revised amount to be assessed under the Consortium | \$(1,066,526) |
| E&E Rating | Moderate-High |
| Funding Adjustment based on Ministry's Funding Adjustment Formula | 90% |
| 2010-2011 Total Funding adjustment | \$ 959,873 |

(Numbers will be finalized once regulatory approval has been obtained.)

¹⁰ This refers to Boards that have a deficit/surplus on student transportation

Appendix 1: Glossary of Terms

| | |
|----------------------------|---|
| Act | Education Act |
| Assessment Guide | The guide prepared by the E&E Review Team and the Ministry of Education which will be used as the basis for determining the overall effectiveness and efficiency of each Consortium |
| Common Practice | Refers to a set of planning parameters that have been reported by Ontario school boards as the most commonly adopted planning policies and practices. These are used as references in the assessment of the relative level of service and efficiency. |
| Consortium, the; or STS | Southwestern Ontario Student Transportation Services |
| Deloitte | Deloitte & Touche LLP (Canada) |
| Driver | Refers to bus Drivers, see also operators |
| E&E | Effectiveness and Efficiency |
| E&E Review Team | As defined in Section 1.1.5 |
| E&E Reviews | As defined in Section 1.1.4 |
| Effective | Having an intended or expected effect; the ability to deliver intended service |
| Efficient | Performing or functioning in the best possible manner with the least waste of time and effort; the ability to achieve cost savings without compromising safety |
| Evaluation Framework | The document, titled “Evaluation Framework for Southwestern Ontario Student Transportation Services” which supports the E&E Review Team’s Assessment; this document is not a public document |
| Funding Adjustment Formula | As described in Section 1.3.5 |
| HR | Human Resources |
| IT | Information Technology |
| JK/SK | Junior Kindergarten/Senior Kindergarten |
| KPI | Key Performance Indicators |
| LDCSB | London District Catholic School Board |
| Management Consultants | As defined in Section 1.1.5 |
| Memo | Memorandum 2006: SB13, dated July 11 issued by the Ministry |
| Ministry | The Ministry of Education of Ontario |
| MPS | Management Partnership Services Inc., the routing consultant, as defined in Section 1.1.5 |
| MTO | The Ministry of Transportation of Ontario |

| | |
|--|---|
| operators | Refers to companies that operate school buses, boats or taxis and the individuals who run those companies. In some instances, an operator may also be a Driver. |
| Overall Rating | As Defined in Section 3.2 of the Evaluation Framework |
| Member Boards, School Boards or Boards | The school boards that have participated as full partners or members in the Consortium; the TVDSB and the LDCSB |
| Rating | The E&E Assessment score on a scale of High to Low, see Section 1.3.4 |
| Report | The report prepared by the E&E Review Team for each Consortium that has undergone an E&E Review (i.e. this document) |
| Separate Legal Entity | Incorporation |
| STS | Southwestern Ontario Student Transportation Services |
| Type A school bus | A smaller asset, typically with a 20 passenger capacity, oftentimes used to transport special needs students |
| TVDSB | Thames Valley District School Board |

Appendix 2: Financial Review – by School Board

London District Catholic School Board

| Item | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 | 2010-2011 |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|
| Allocation | \$10,719,989 | \$11,798,371 | \$12,188,317 | \$12,059,781 | \$11,711,637 |
| Expenditure | \$10,152,587 | \$11,239,551 | \$11,183,347 | \$11,413,252 | \$11,539,931 |
| Transportation Surplus (Deficit) | \$567,402 | \$558,820 | \$1,004,970 | \$646,529 | \$171,706 |

Thames Valley District School Board

| Item | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 ¹¹ | 2010-2011 ¹² |
|----------------------------------|---------------|--------------|---------------|-------------------------|-------------------------|
| Allocation ¹³ | \$27,603,890 | \$31,218,459 | \$32,258,351 | \$32,590,125 | \$32,519,112 |
| Expenditure ¹⁴ | \$29,475,105 | \$31,640,520 | \$33,718,372 | \$33,656,651 | \$34,586,419 |
| Transportation Surplus (Deficit) | (\$1,871,215) | \$(422,061) | \$(1,460,021) | \$(1,066,526) | \$(2,067,307) |

¹¹ 2009-2010 allocations and expenditures based on Ministry data – Financials for 2009-2010

¹² 2010-2011 allocations and expenditures based on Ministry data – Estimates for 2010-2011

¹³ Allocation based on Ministry data – includes all grant allocations for transportation (Section 9 00008C, Section 13 00006C, Section 13 00012C)

¹⁴ Expenditure based on Ministry data - taken from Data Form D:730C (Adjusted expenditures for compliance) - 212C (Other Revenues) + Schedule 10:620C (Transportation Amortization)

Appendix 3: Document List

1. 3.14 Transferring of Students Between Buses.pdf
2. AA1.pdf
3. AddInfoRequestedP&P.pdf
4. AddInfoRequestRouteTech.pdf
5. AddressRejectsasofsept2210.pdf
6. AFRs.pdf
7. All_ Routes.pdf
8. ApprovedAltTransStudents.pdf
9. ApprovedChoiceStudents.pdf
10. Average Ride times Results Sept 16 2010.pdf
11. CM10,10A.pdf
12. CM10B.pdf
13. CM11A,B.C.D.pdf
14. CM12A.pdf
15. CM12A1.pdf
16. CM12AZ,CM12C.pdf
17. CM12B.pdf
18. CM12C.pdf
19. CM12E.pdf
20. CM12F.pdf
21. CM12F.pdf
22. CM12F.pdf
23. CM12F.pdf
24. CM13A,CM13E,CM14D.pdf
25. CM13A,CM14C.pdf
26. CM13E.pdf
27. CM14B.pdf
28. CM14B1.pdf
29. CM14C.PDF
30. CM14D.pdf
31. CM14E.pdf

32. CM14F.PDF
33. CM1a.pdf
34. CM1B.pdf
35. CM1B1.pdf
36. CM1B2.pdf
37. CM1B3.pdf
38. CM1C.pdf
39. CM2a.pdf
40. CM2B.pdf
41. CM2B.pdf
42. CM2B08102010.pdf
43. CM2B08102010.pdf
44. CM2C.pdf
45. CM3A.pdf
46. CM3A.pdf
47. CM3A.pdf
48. CM3A.pdf
49. CM3B.pdf
50. CM3B.pdf
51. CM3B.pdf
52. CM3B1TSDutiesForRouteMaintenance.pdf
53. CM3B1TSDutiesForRouteMaintenance.pdf
54. CM3B1TSDutiesForRouteMaintenance.pdf
55. CM3BA.pdf
56. CM3BA.pdf
57. CM3BA.pdf
58. CM4.pdf
59. CM5.pdf
60. CM6.PDF
61. CM7B.pdf
62. CM7B1.pdf
63. CM8.pdf
64. CM8.pdf

65. CM9A.pdf
66. CM9A1.pdf
67. CM9A1.pdf
68. CM9B.pdf
69. CM9B.pdf
70. CM9C,9D.pdf
71. CM9C,9D.pdf
72. CM9F.pdf
73. CM9F.pdf
74. Draft Minutes 092110.pdf
75. E&E AM STUDENT_TABLE.xls
76. E&E PM_STUDENT_TABLE.xls
77. E&E-BellTimes.xls
78. E&E-RouteCoding.xls
79. E&E-RunTable.xls
80. E&E-StudentCounts.xls
81. E&E-StudentTable.xls
82. Edulog Conference Manual 2009.pdf
83. EE-OneBusSharing.xlsx
84. EligibleTransitStudents.pdf
85. EligibleUnassignedList.pdf
86. IncidentReport2008-09.pdf
87. IncidentReport2009-10.pdf
88. InvoiceAnalysisSummaryBoard.pdf
89. InvoiceAnalysisSummaryFuel.pdf
90. InvoiceAnalysisSummaryOperator.pdf
91. IvalidSchoolGradeProgramCombinationSept22.pdf
92. KPIDistancetoStop.pdf
93. LOADCONDITIONSBYRUNSEPT22.PDF
94. MILEAGESEPT.TXT
95. PP1A.pdf
96. PP1B.pdf
97. PP1C.pdf

98. PP1D.pdf
99. PP2.pdf
100. PP3.pdf
101. PP5.pdf
102. PP6.pdf
103. PP8.pdf
104. Process for Creating Routes and Runs.pdf
105. ProvincialProjections.pdf
106. QMF_DISTANCETOSTOP.PDF
107. qmf_eligiblewithaprogram.pdf
108. QMF_ROUTESEPT.TXT
109. QMF_RUNSWITHOUTROUTESEPT21.PDF
110. QMF_STUDENTSSEPT.TXT
111. Route Information-D Routes Info.pdf
112. RouteCapacityReportasof092110.pdf
113. RouteCapacityReportasof092110.xlsx
114. RT1.pdf
115. RT1A.pdf
116. RT1B.pdf
117. RT1C.pdf
118. RT2.pdf
119. RT3(continued).pdf
120. RT3.pdf
121. RT41.pdf
122. RT42.PDF
123. RT51.pdf
124. RunsWithDeadSopsSept2110.pdf
125. SchoolVehicleIncidentReportYTD2010.pdf
126. StopsNotonaRunSept22.pdf
127. STS E&E.pdf
128. STS P&P Response.pdf
129. StudentIncidentReportYTD2010.pdf
130. STS E&E Presentation.pptx

131. Weather Delay&Cancel 2008-09.pdf

132. Weather Delay&Cancel 2009-10.pdf

Appendix 4: Common Practices

| | | Elementary | | Secondary |
|------------------------------------|-------|--|------------------------------|------------------------------|
| | | JK/SK | Gr. 1 – 8 | GR. 9 - 12 |
| Home to School Distance | | | | |
| Common Practice | | 0.8 km | 1.2 km | 3.2 km |
| Policy - | LDCSB | 1.6 km | 1.6 km | 3.2 km |
| Policy - | TVDSB | 1.6 km | 1.6 km | 3.2 km |
| Home to Bus Stop Distance | | | | |
| Common Practice | | 0.5 km | 0.8 km | 0.8 km |
| Policy - | LDCSB | 0.4 km rural 0.8 urban | 0.4 km rural 0.8 rural | 0.4 rural 1.6 urban |
| Policy - | TVDSB | 0.4 km rural 1.6 km urban | 0.4 km rural 0.8 km urban | 0.4 km rural 1.6 km urban |
| Arrival Window | | | | |
| Common Practice | | 18 | 18 | 25 |
| Policy - | LDCSB | 15 | 15 | 15 |
| Policy - | TVDSB | 15 | 15 | 15 |
| Departure Window | | | | |
| Common Practice | | 16 | 16 | 18 |
| Policy - | LDCSB | 5 | 5 | 5 |
| Policy - | TVDSB | 5 | 5 | 5 |
| Earliest Pick Up Time | | | | |
| Common Practice | | 6:30 | 6:30 | 6:00 |
| Policy - | LDCSB | 5:58 AM is the earliest pick-up time in the database | | |
| Policy - | TVDSB | | | |
| Latest Drop Off Time | | | | |
| Common Practice | | 5:30 | 5:30 | 6:00 |
| Policy - | LDCSB | 5:57 PM is the latest drop-off time in the database | | |
| Policy - | TVDSB | | | |
| Maximum Ride Time | | | | |
| Common Practice | | 75 | 75 | 90 |
| Procedure - | LDCSB | 70 | 70 | 70 |
| Procedure - | TVDSB | 70 | 70 | 70 |
| Seated Students Per Vehicle | | | | |
| | | JK/SK | Gr. 1 - 6 | GR. 7 - 12 |
| Common Practice | | 69 | 69 | 52 |
| Procedure - | LDCSB | 72 | 72 | 48 |
| Procedure - | TVDSB | 72 | 72 | 48 |



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