Deloitte.

Financial Advisory

Ministry of Education Effectiveness & Efficiency Review

Phase 2 Review
North East Tri-Board Student Transportation

May 2008

Table of Contents

Please note 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.

Executive Summary

Introduction

This report details the findings and recommendations of an Effectiveness and Efficiency review (E&E Review) of the North East Tri-Board Student Transportation (the "Consortium" or "NETST") conducted by a review team selected by the Ministry of Education. This review is the result of government initiatives to establish an equitable approach to reform student transportation across the province and minimize the administrative burden on boards in providing safe, reliable, effective, cost efficient transportation services. This section of the report is designed to provide an overall assessment of the Consortium and detail the findings and recommendations that were particularly noteworthy. These major findings and recommendations are enhanced and supplemented by the specific findings and recommendations detailed in each section of the body of the report.

The E&E Review evaluated the Consortium's performance in four specific areas of operation including consortium management; policies and practices; routing and technology use; and contracting practices. The purpose of reviewing each of these areas was to evaluate current practices to determine if they are reasonable and appropriate; identify whether the Consortium has implemented any best practices; and provide recommendations on opportunities for improvement in each of the specific areas of operation. The evaluation of each area was then utilized 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.

Effectiveness and Efficiency Review Summary

The school boards in Northeastern Ontario have a long history of sharing school Board transportation services. A Transportation Committee was formed in 1998 by the four new district School Boards to share transportation services. In early 2005, District School Board Ontario North East ("DSBONE"), Northeastern Catholic District School Board ("NCDSB") and Le Conseil scolaire public du Nord-Est de l'Ontario ("CSDNE") signed Consortium Agreement and jointly formed North East Tri-Board Student Transportation ("NETST").

Currently, NETST has contracts with 17 Bus Operators for 226 buses to provide transportation services to 8,440 students. Due to this area's dispersed population centres covering vast distances, NETST faces unique challenges, which are addressed through the Consortium operating from two sites. The geographic distance from one end of the district to the other is over 600 kilometres, and the coverage area is about

25,000 square kilometres. The dispersed population and the vast distances contribute directly towards the complexity in amalgamation and route planning.

Since its formation, the Consortium has accomplished many of the key steps necessary to fulfil its mandate as a student transportation Consortium. Notable achievements include:

- The oversight body (the Governance Committee and the Operations Committee) of NETST has equal representation from each of the Partner Board. Each Partner Board has one voting right. The structure of the oversight body promotes fairness and ensures that the rights of the stakeholders are considered equally.

- Standard contracts exist for regular school bus and special needs vehicles. By having a formal signed contract in place with the Operators, the Consortium appropriately shares the responsibility and legal liability related to student transportation.

- The contracts are signed by the Operators well before the start of the school year. It is very important to have all operator contracts signed before the starts of the school year. NETST undertook considerable efforts in terms of its planning and negotiation with operators prior to the start of the school year. These efforts yielded good results in terms of having contracts in place. Having signed contracts before the start of the school year ensures that terms and responsibilities are agreed upon in advance of any services being delivered.

- The Partner Boards have harmonized policies which has allowed for the establishment of operating procedures that support the role of the Consortium in its responsibility to determine the best available transportation plan and promote fair and equitable service to the students of the Partner Boards.

- The Consortium’s Policy Manual and the supporting procedures provides Consortium staff, parents, and the school communities with a single point of reference facilitating clear communication and promoting equitable service. In addition, the establishment and documentation of an annual planning process ensures that critical tasks are properly sequenced and appropriate resources can be allocated to complete the required tasks.

- The Consortium has adopted a number of communication tools, including the use of web-based technologies, to communicate with its stakeholders. The adoption of these tools improves access to information and reduces the costs associated with stakeholder notification of changes to the system.

Based on the findings from the E&E review, the primary opportunities for improvements are:

Entity Status

Partnerships have several inherent risks which make them less than optimal entity structures for coordinating student transportation for School Boards. Through incorporation, a Consortium is recognized as a legal entity separate from the school boards as owners. The primary benefit of incorporation is an effective safeguard against a third party establishing any liability on the part of a member School Board. Incorporation has secondary qualitative benefits which include enhancements to the credibility of the Consortium by requiring additional public accountability. There are more formal reporting requirements and well established incorporation by-laws that govern organizational behaviors and decision making. Clearly defined roles and responsibilities of governance provides a robust accountability framework for all key parties involved including school boards, the consortium, and Operators or other service providers under contracts. In addition, incorporation provides assurance of continuous existence and gives the consortium greater stability in the long run.

Competitive Procurement Process

A competitive procurement process brings fairness, impartiality, and transparency to any procurement exercise and will allow the Consortium to purchase services from Operators that are able to meet specific requirements. Using a competitive procurement process, in particular in urban centres, will provide the Consortium with the opportunity to obtain the best value for their money and set service level expectations. Furthermore, this process will reflect market prices as it allows Operators to submit proposals, based on achievable operational efficiency and an appropriate return on investment, with full knowledge of the service level requirements as specified by the Consortium. Additionally, it provides a fair and measurable basis for evaluating Operator performance and allows the Consortium to utilize financial incentives to meet desired service levels. In areas where this process may not be appropriate, the Consortium can use the competitively procured contracts as a proxy for service levels and costs negotiated with the Operators.

Taxi and Summer School Bus Contracts

Written contracts should be established with taxi companies and those Operators who provide Summer School bus services. The lack of contracts for these Operators increases risk exposure to the Consortium and the Partner Boards. It is important that all vehicles used to transport students are in compliance with the Ministry of Transportation licensing, insurance and safety requirement, and that drivers have

received all appropriate mandatory training to allow them to provide student transportation services.

Safety Training Oversight

The Consortium should immediately establish an operating practice to document and analyze training requirements. This process should address all training elements and identify the periodicity of, responsibility for, and curriculum required for each event. The establishment of this type of documentation will ensure that well crafted, well intentioned policies have the expected impact on transportation safety and effectiveness.

Student Data Management and Coding Structure

The Consortium should investigate the automatic exchange of student data to lessen the manual effort required to maintain student information and reduce the extraordinary amount of effort required to check every student record during the annual planning process. Improvements in this area would allow the Transportation Clerks to complete the implementation of the well designed coding structure. Completion of this coding structure will greatly improve the accuracy, completeness, and usefulness of recommended reporting and performance measurement activities.

Routing Software Training

A regular program of staff training should be implemented with a focus on effective route planning and basic data analysis. Given the current organization structure whereby each Clerk is responsible for all aspects of transportation planning within their designated region, training would help to ensure consistency in route planning and the consistent application of policies and procedures. Formal training specific to the routing software application should also be considered to fully train all Clerks in the more advanced reporting and routing capabilities of the software.

Implementation of the proposed recommendations and the ongoing use of the best practices identified throughout the body of the report will facilitate the continued evolution of NETST to a highly effective and efficient Consortium.

Funding Adjustment

As a result of this review of current performance, NETST has been rated as a **Moderate** Consortium. Based on this evaluation, the Ministry will provide additional transportation funding that will narrow the 2007-08 transportation funding gap for Northeastern Catholic District School Board and Le Conseil scolaire public du Nord-Est de l'Ontario, while the transportation allocation for District School Board Ontario North East will remain unchanged in the 2007-08 school year.

The funding adjustments to be received are detailed below[1]:

District School Board Ontario North East	N/A
Northeastern Catholic District School Board	$2,681
Le Conseil scolaire public du Nord-Est de l'Ontario	$38,583

[1] Refer to Section 7 for the calculation of funding adjustments.

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 fund school boards. From 1998-1999 to 2007-2008, an increase of over $195 million in funding has been provided to address increasing costs for student transportation, such as fuel price increases, despite the fact that there has been a general decline in student enrolment in recent years.

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 Consortia 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 has been endorsed by the Education Improvement Commission in 2000 and proven by established Consortium sites in the province. Currently, the majority of school boards cooperate to some degree in delivering transportation services. Cooperation between 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-leased vehicles used to complement services acquired through contracted private Operators.

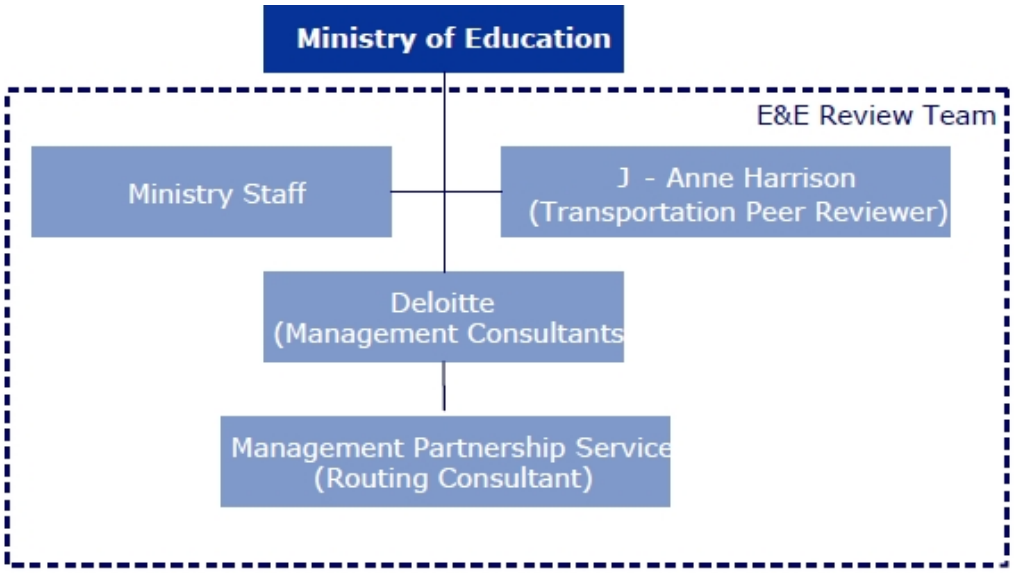
1.1.4 Effectiveness and Efficiency Review

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 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. Phase 1 of the E&E Reviews was completed in March 2007 and included reviews on 4 consortia sites. As a result, a total of $7.6M in additional funding was provided to the reviewed boards.

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 (the "E&E Review Team" as defined in Figure 1) to perform the E&E Reviews. The E&E Review Team was designed to leverage the expertise of industry professionals and consulting firms 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. The Transportation Peer Reviewer has provided the E&E Review Team with valuable insight into student transportation delivery in Ontario.

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 of the E&E Review Team. Deloitte's overall role is as follows:

- Lead the E&E Review for each of the five (5) transportation Consortium to be reviewed in Phase Two (refer to Section 1.1.4);
- At the beginning of each E&E Review, convene and moderate planning meetings to determine data required and availability prior to the review;

- Lead the execution of each E&E Review. The Ministry facilitated the process by providing the Consortium with information required in advance so that preparation and collection of information would be done prior to the on-site review;

- Review Consortium arrangement and governance structures, and contracting procedures;

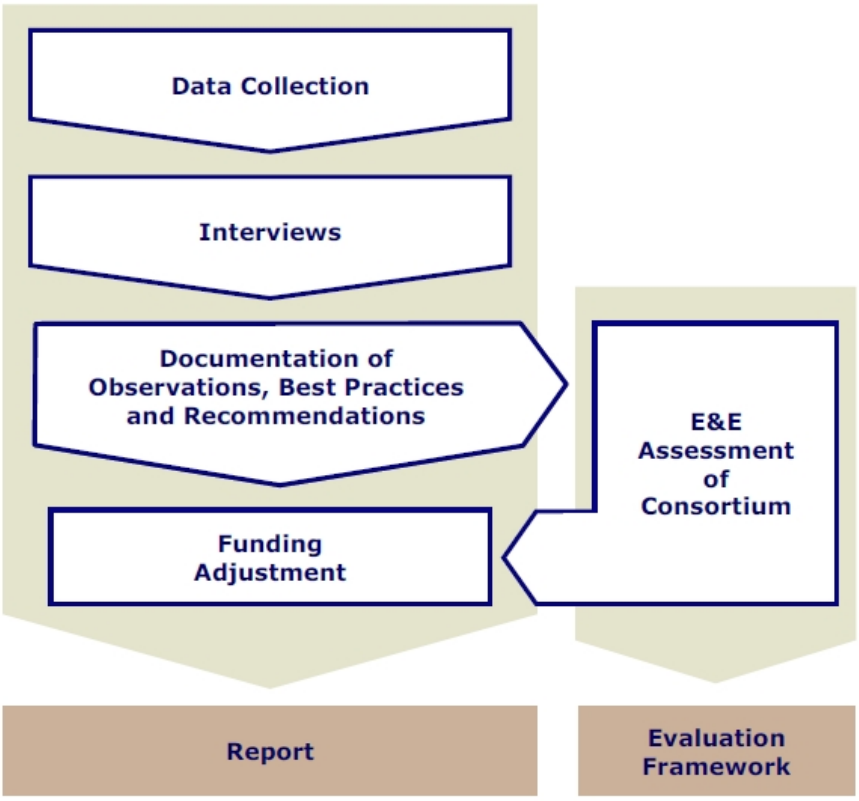
- Incorporate the results of the routing and technology review in addition to the policies and practices review to be completed by MPS; and

- Prepare a report for each Consortium which has undergone an E&E Review in Phase Two. The target audience for the report will be the Ministry, the Consortium and its Partner Boards. Once finalized, each report will be released to the Consortium and its Partner Boards.

1.3 Methodology Used to Complete E&E Review

The methodology for the E&E Review is based on a 5 step approach, as summarized in the following sections.

Figure 2: E&E Review Methodology



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

1.3.1 Step 1 – Data Collection

Each Consortium under review was provided with the E&E Guide from the Ministry of Education. This guide provides details on the information and data needs that the E&E review team would require, and the E&E Guide will become the basis for the data collection.

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 identified key Consortium staff, outside stakeholders and key policy makers with whom interviews would be conducted to further understand the operations and key issues impacting 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 documented their findings under three key areas:

- Observations which involved 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. The key criteria used in the Assessment Guide to determine the effectiveness and efficiency of each Consortium are given bellow:

Effectiveness

Consortium Management

- Distinct entity focused on providing student transportation services for the partner boards
- Well defined governance and organizational structure with clear roles and responsibilities
- Oversight body exists with the mandate to provide strategic directions to the 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
- Well established accountability framework reflected in the set up and operation of the consortium including documentation of terms in a Consortium Agreement
- Operations are monitored for its performance and continuous improvement

- Financial processes ensure accountability and equality to Partner Boards
- A budgeting process is in place which ensures timely preparation and monitoring of expenses
- Key business relationships are defined in contracts

Policies and Practices

- Development of policies is based on well-defined parameters as set by strategic and operational plans to provide safe, effective and efficient transportation service to students of the school boards; and
    - Policy decisions are made with due considerations to financial and service impacts to partner boards
    - Communication between the consortium and partner boards facilitates informed decision making on issues directly affecting student transportation
    - Consortium's policies and practices are adequate and in compliance with all relevant safety regulation and standards
    - Practices on the ground follow policies

Routing and Technology

- Advanced use of transportation management software to student data, and create a routing solution.
- Disaster recovery plans and back up procedures are in place and operating properly
- Responsibility and accountability for student data management is clearly identified
- Routing is reviewed regularly
- Reporting tools are used effectively
- Special needs routing is integrated with regular needs where reasonable

Contracts

- Competitive contracting practice is used

- Contract negotiations are transparent, fair, and timely
- Contracts are structured to ensure accountability and transparency between contracted parties
- Contracts exist for all service providers
- Ongoing compliance checks for safety, legal and service requirements are performed by the consortium

Efficiency

Consortium management

- Oversight committee focuses only on high level decisions
- Organizational structure is efficient in utilization of staff
- Streamlined financial and business processes
- Cost sharing mechanism are well defined and implemented

Policies and Practices

- Harmonized transportation policies between partner boards enable efficient planning
- Proper level of authority delegated to consortium to enable the realization of potential efficiencies e.g. bell times setting
- Best practices in planning are adopted e.g. utilize tiered runs and combination runs to maximize the use of available capacity
- Public transit usage is optimized where available and efficient
- Service levels are reasonable and comparable to common practices

Routing and Technology

- System can be restored quickly if database fails
- Student data is accurate, requires little post processing verification
- System functionalities are used to identify efficiencies

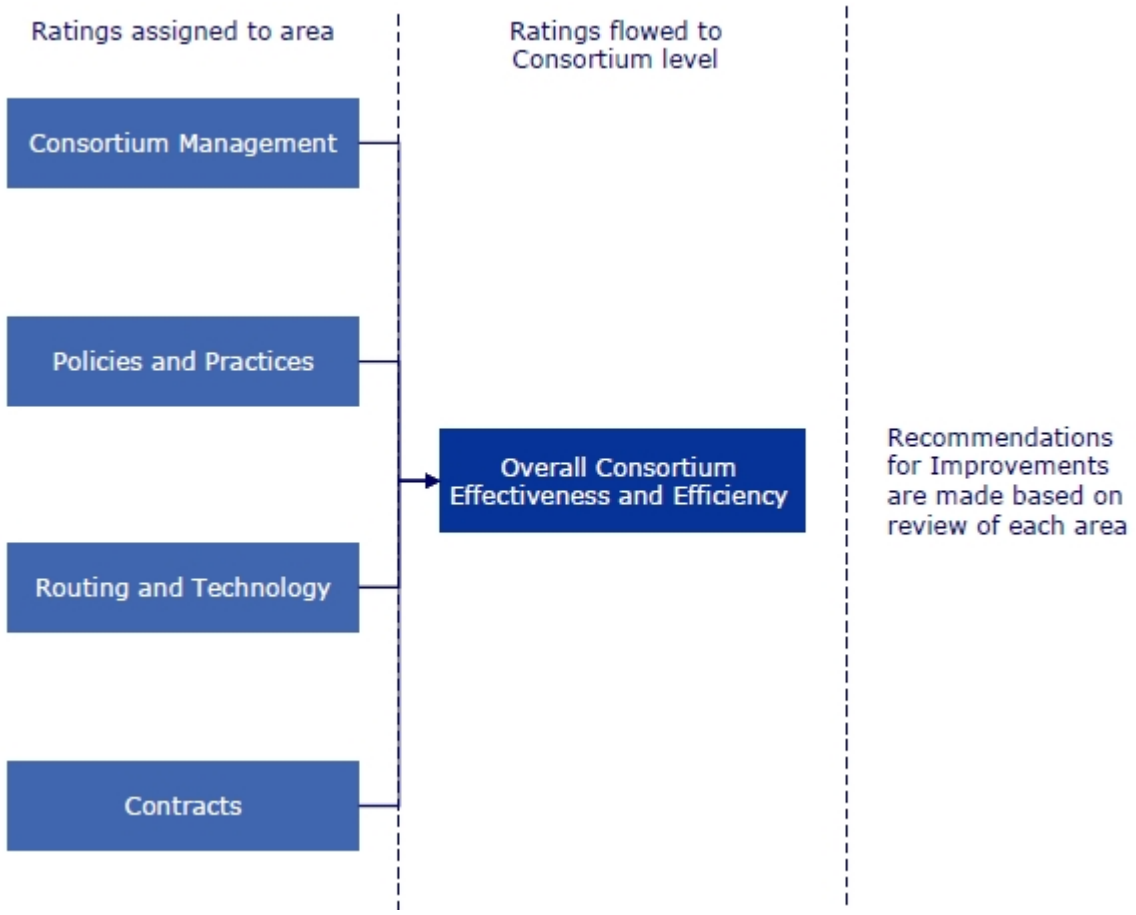
Contracts

- Contracts awarded are based on market prices and best value for money
- Fair payment terms are included in contracts and implemented with clarity to both parties

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 between the four main components of review (i.e. Consortium Management, Policies and Practices, Routing and Technology, and Contracts) and, for each, illustrates what would constitute a specific level of E&E (refer to Figure 3 for diagram of process).

Figure 3: Assessment of Consortium – Diagram Flow



The Evaluation Framework provides details on how the Assessment Guide was applied, including the use of the Evaluation Work Sheets, to arrive at the final Overall Rating. The E&E Review Team then compiled 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 Boards that have undergone E&E Reviews are eligible for a funding adjustment. Table 1 describe how the Overall Rating will affect a Board's transportation expenditure-allocation gap.

Table 1: Funding Adjustment Formula

Overall Rating	Effect on deficit Boards[2]	Effect on surplus Boards[2]
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 30%	Same as above
Low	Reduce the gap in the range of 0% to 30%	Same as above

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 January 28, 2008.

1.3.7 Material 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.

1.3.8 Limitations on Use of This Report

The purpose of this Report is to document the results of the E&E Review of North East Tri-Board Student Transportation. 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.

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

2 Overview of the Consortium

2.1 Introduction to the North East Tri-Board Student Transportation Consortium

The school Boards in Northeastern Ontario have a long history of sharing school Board transportation services. A Joint Transportation Committee was formed in 1998 by the four new district school Boards to share transportation services. In early 2005, District School Board Ontario North East ("DSBONE"), Northeastern Catholic District School Board ("NCDSB") and Le Conseil scolaire public du Nord-Est de l'Ontario ("CSDNE") signed a Consortium Agreement and jointly formed North East Tri-Board Student Transportation ("NETST").

Currently, NETST has contracts with 17 Bus Operators for 226 buses to provide transportation services to 8,440 students. Due to this area's dispersed population centres covering vast distances, NETST faces unique challenges, which are addressed through the Consortium operating from two sites. The geographic distance from one end of the district to the other is over 600 kilometres, and the coverage area is about 25,000 square kilometres. The dispersed population and the vast north-south distances contribute directly towards the complexity in amalgamation and route planning.

Table 2 below provides a summary of key statistics of each Board:

Table 2: 2006-07 Transportation Survey Data

Item	DSBONE	NCDSB	CSDNE
Number of schools served	39	13	6
Total students transported daily	5877	2048	658
Total general transported students	4544	1406	641
Total special needs[3] transported students	1031	535	-
Total riders requiring wheelchair accessible transportation	38	8	1
Total specialized program[4] transportation	94	26	4

[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.

Item	DSBONE	NCDSB	CSDNE
Total courtesy riders	-	-	-
Total hazard riders	170	73	12
Total Number of Contracted Vehicles	168	51	18
Total contracted full- and mid-sized buses[5]	133	38	16
Total contracted mini-buses	26	10	2
Total contracted school purpose vehicles[6]	-	-	-
Total contracted physically disabled passenger vehicles (PDPV)	8	3	-
Total contracted taxis	1	-	-

Table 3: 2006-07 Financial Data[7]

Item	District School Board Ontario North East	Northeastern Catholic District School Board	Conseil scolaire public du Nord- Est de l'Ontario
2006/2006 Transportation Allocation	6,860,708	2,661,999	1,109,519
2006/2007 Transportation Expenditure	6,816,558	2,666,467	1,260,497
2006/2007 Transportation Surplus (Deficit)	44,150	(4,468)	(150,978)
Percentage of transportation expenditure attributed to North East Tri-Board Student Transportation	100.00%	100.00%	42.59%

[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-purpose vans, mini-vans and sedans
[7] Based on Ministry Data – see Appendix 2.

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 analysed based on information provided by the Consortium, and from information collected during interviews. The analysis is comprised of 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 Consortium Management as shown below:

Consortium Management – E&E Rating: Moderate

3.2 Governance

Governance refers to the way in which an organization is directed and controlled. Establishing administrative structures and processes which facilitate and monitor 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 be independent of the management of day-to-day operations.

3.2.1 Observations

Governance Committee

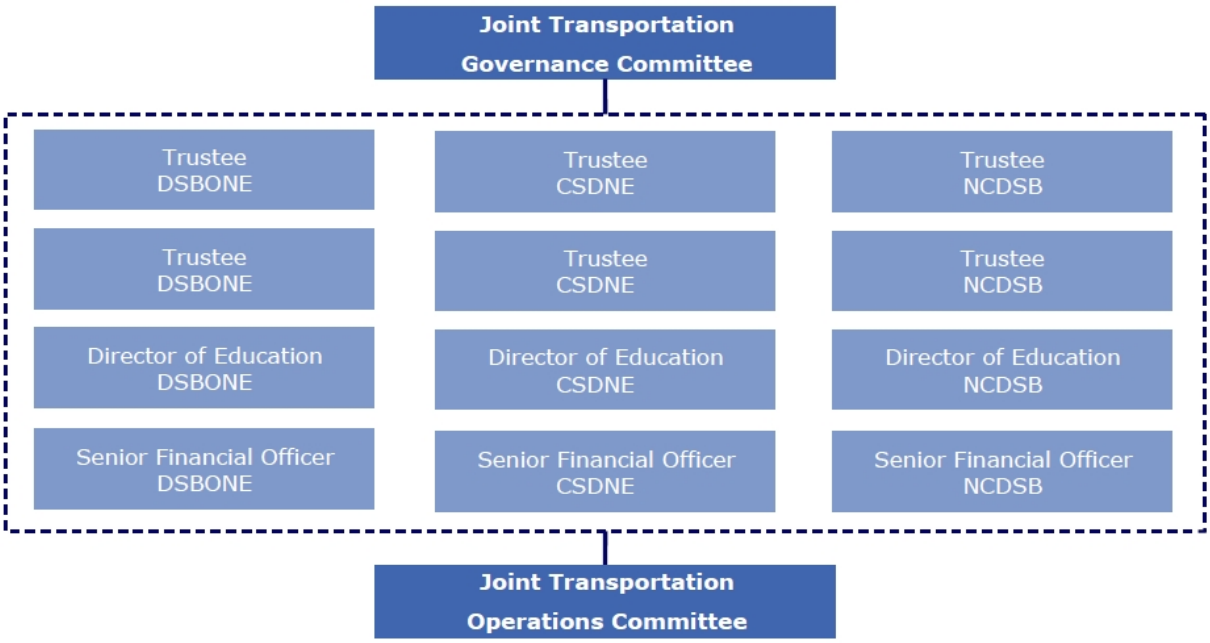
The Governance Committee exists to provide oversight and set direction for the daily operation of a business. It will be deemed effective if appropriate documentation exists around the roles and responsibilities of its members allowing the structure to be maintained indefinitely and it will be deemed efficient if the level of responsibility is such

that the oversight role is not interfering with the daily operation of the business. NETST has a three tiered operational structure including a Governance Committee and an Operations Committee as per Figure 4 below.

Arbitration

A dispute resolution policy is defined by the Agreement to ensure that a structured and rational approach is adopted to address situations where the Boards are unable to reach mutual agreement. The Agreement requires that all disagreement be referred to Arbitration pursuant to the provisions of the Arbitration Act. The arbitration process involves the selection of an arbitration committee composed of four arbitrators, one of whom is chosen by each of the three (3) Partner Boards and the fourth is selected by the three other arbitration committee members previously chosen to act as the chair of the Arbitration Committee. All decisions of the Arbitration Committee are binding on the Partner Boards and are determined by majority rule where all four (4) individuals on the arbitration Board have one voting right.

Figure 4: Governance Organizational Chart



Joint Transportation Governance Committee

The Governance Committee is comprised of an equal number of members from each of the Partner Board (two trustees, Director of Education, and Senior Financial Officer). The Governance Committee operates under a consensus model where each Board has one voting right. Under the existing structure, the roles and responsibilities of the Governance Committee are clearly defined and are focused on establishing the

direction for the Consortium in matters that are common to all the Partner Boards. No formal structure is currently in place to present issues for resolution or record the proceedings of the Governance Committee meetings.

Joint Transportation Operations Committee

The Operations Committee is comprised of Senior Financial Officers of each Partner Board, the Supervisor and the Transportation Officer of NETST. The Operations Committee also operates under a consensus model and carries out its mandate for the Consortium in matters that are common to all Partner Boards. The Operation Committee's role is generally more tactical in nature and it leads the day to day operation of NETST.

3.2.2 Best Practices

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

- The oversight body (the Governance Committee and the Operations Committee) of NETST has equal representation from each of the Partner Boards. Each Partner Board has one voting right. The structure of the oversight body promotes fairness and ensures that the rights of the stakeholders are considered equally;

- Roles and responsibilities for the Governance Committee and Joint Operations Committee are clearly articulated. This ensures that there is no ambiguity in the function of the Governance Committee. The Governance Committee can focus on establishing and driving a continuous improvement process for the operation, contributing to the long-term success of NETST. This is a key element in effective and efficient governance and management; and

- The Senior Financial Officers from each of the School Boards work very closely with the Supervisor and the Transportation Officer from NETST through the Operations Committee. The principal objective of the Operations Committee is to provide operational guidance and support in various forms. The Senior Financial Officers act as the conduit of communication between the School Boards/trustees and NETST and are independent of the daily operations and management of the Consortium. This allows the oversight function to operate objectively and in the best interest of NETST.

3.2.3 Recommendations

Governance Committee Meeting

In order to fulfill its oversight responsibilities, it is recommended that the Governance Committee sets a schedule of meetings each year. Minutes should be kept for each of the Governance Committee meetings and those minutes should be ratified in the following meeting. The minutes are typically signed by those charged with the responsibilities of recording the minutes and by the person acting in the role of a chairperson upon ratification of the minutes. The minutes serve to document and evidence approval of decisions made. The meeting minutes provide official record of decisions made by the Governance Committee and prescriptive direction for management to execute the decisions of the Partner Boards.

3.3 Organizational Structure

An organizational structure can have the power to provide for effective communication and coordination which will enable operations to run 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 managing up the chain of command. Ideally the organization is divided functionally (by department and/or area) and all core business functions are identified.

3.3.1 Observations

Entity Status

NETST is an entity by means of a Partnership Agreement. Operationally, NETST was initially comprised of the former Transportation Departments of the Partner Boards and since September 2005 all of the individuals who work for the Consortium were transferred to be employees of DSBONE. The Consortium is governed by the terms and conditions outlined in the Partnership Agreement entered into by the Partner Boards (Please refer to Section 3.4.1 for Partnership Agreement). NETST provides transportation services to only the Partner Boards.

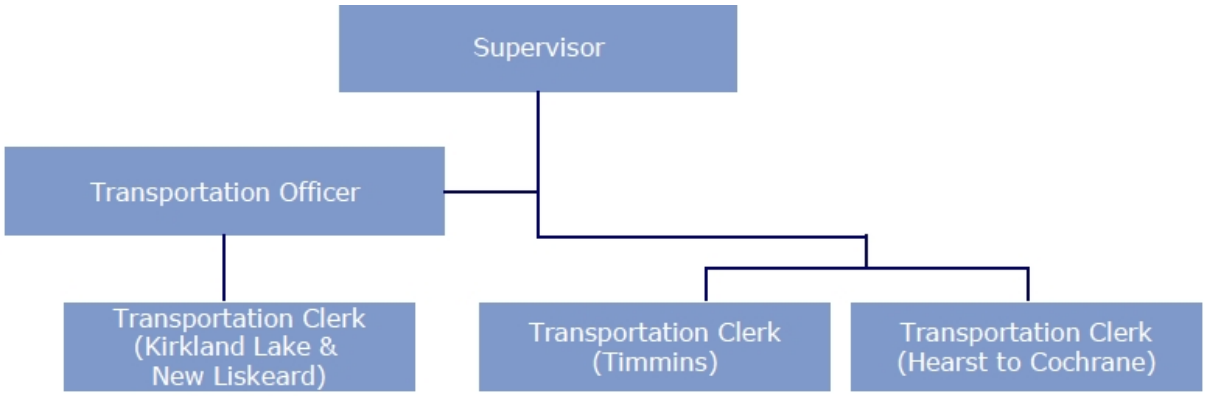
Organization of Entity

The organizational structure of NETST is shown in Figure 5 below. A clear reporting structure has been demonstrated within the organization. Due to the specific geographic condition of the area – i.e. there are large distances between the southernmost and northernmost parts of the Consortium’s service areas, the transportation planning activities are carried out in two separate locations. The Supervisor is responsible for the

overall operation of NETST. The Transportation Clerks in Hearst-Cochrane and Timmins regions report directly to the Supervisor. One other Transportation Clerk who manages the route planning in the Kirkland Lake and New Liskeard area reports to the Transportation Officer, and they both work in the New Liskeard DSBONE office. The Transportation Officer is responsible for designing and managing bus routes in the New Liskeard and Kirkland Lake area, and this individual reports to the Supervisor.

All three Transportation Clerks are unionized, and are subject to DSBONE's local union agreement. The Transportation Officer and the Supervisor are part of the Management Team and are not represented by a union.

Figure 5: Organizational Chart



Job Descriptions

Job descriptions establish the areas of responsibility for all staff members and delineate responsibility for management of specific functional activities performed including routing, systems management, contract negotiation and oversight. Defining roles within the organization is important in ensuring that staff are aware of the skills and abilities required of their position; the purpose of their position within the organization; the scope of their authority and responsibility; and the chain of command that must be followed.

3.3.2 Best Practices

NETST has demonstrated best practices in the following area:

- NETST has adopted a logical organizational structure. The management team undertakes a unique approach by setting up two separate local offices to solve the challenges they face in this area due to the special geographic characteristics. Having two offices allows the Consortium to better serve the many rural and small communities within the area. The Transportation Clerks can provide immediate services because they are cognizant of local conditions, at the

time when initial reaction or response is required. A clear line of authority exists within the organization, and the operational decision-making is consistent and appropriate in the two transportation offices.

3.3.3 Recommendations

Establishment of a Separate Legal Entity

Generally speaking, all partners of a partnership are jointly liable for all debts and liabilities of that partnership. Similarly, any one partner can bind all other partners to matters involving the partnership. As a result, partnerships have several inherent risks which make them less than optimal entity structures for coordinating student transportation:

- The risk that the actions of one Partner Board may be leaving the other Partner Boards open to liability;

- The risk that Partner Boards can be involved in litigation for issues involving students that are not part of their school board; and

- The risk that liability, brought about through the partnership, may exceed the existing insurable limits. The consortium should investigate with the assistance of their insurance carrier their coverage related to, but not limited to, punitive damages, human rights complaints, and wrongful dismissal lawsuits.

Based on these risks the Partner Boards should explore the establishment of the Consortium as a Separate Legal Entity through incorporation to formalize and improve its current contracting practices. The creation of a Separate Legal Entity effectively limits risk to the Partner Boards for activities related to the provision of student transportation. Thus, when an incorporated entity takes responsibility for student transportation services, this incorporated entity status is an effective safeguard against any third party establishing liability on the part of a member School Boards. Over the long term, changing political environments and potential disputes amongst the Partner Boards could cause the current structure to destabilize. The formalization of the Consortium as an incorporation would provide benefits from an organizational perspective in terms of corporate continuity, staff planning, liability, contracting and management.

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 defined business relationships.

3.4.1 Observations

Consortium Agreement

NETST was formed by means of a Partnership Agreement ("Agreement") by DSBONE, NCDSB and CSDNE in April 2005. The intention of the Partner Boards was to establish a Partnership for the purpose of providing administrative and consultative services to the Boards, and coordinating the bus routes of all School Boards to optimize the transportation of pupils and cost saving associated therewith. The Tri-Board Transportation Agreement (the "Agreement") defines the mandate, composition and operation of the Joint Transportation Governance Committee (the "Governance Committee") and the Joint Transportation Operations Committee ("the Operations Committee"), established insurance, cost sharing, reporting, withdrawal, termination, arbitration and language requirement. The roles and responsibilities of each Partner have been clearly articulated in the Agreement. See section 3.3.1 and 3.3.3 for discussion of the impact of the partnership entity status.

Cost Sharing

The Agreement contains a provision which states that costs are shared between the Partner Boards based on the Ministry funding received. This costing method does not allocate specific costs to the Partner Boards but rather uses the transportation funding that all Partner Boards receives as a single pool of funds to ensure that all transportation costs are funded. This method is very much a cost pooling method rather than equitable sharing approach as the Boards incur transportation costs based on their ability to bear those costs rather than based on their specific student counts and needs. This cost pooling method aligns itself with the Consortium's goals to ensure that all eligible transportation costs are addressed and to be able to meet those goals with the current state and quantum of funding received. By doing this the Boards treat the need for student transportation as a common and unified need of all the Partner Boards. This cost sharing model was adopted in order to ensure that no Board in the Partnership would face a deficit and therefore enable service levels to be consistent across all Partner Boards. This methodology distorts the actual Partner Board transportation costs to deliver transportation and should be examined as to future financial impacts.

Staff Complement

The NETST staff is managed by the Supervisor and the Transportation Officer as is shown in Figure 5 above. All individuals who work for the Consortium are direct employees of DSBONE. Details of staff roles and responsibilities are discussed further

in Section 3.2.1. Each of the Partner Boards is responsible for implementing the Joint Transportation policy and providing updated student transportation data to NETST.

Operational Plans

There is no formal process in place currently to prepare and/or monitor short or long term operational plans. Operations are reviewed in a reactive manner. Issues are dealt with when they arise. NETST has taken important steps to start working with the Operations Committee to draft an Operational Plan to determine the need for improvement in effectiveness, efficiency, economy and safety of the operation. The drafted Operational Plan has identified goals for NETST for the next four years, and it is awaiting Governance Committee approval before being formally implemented by NETST.

Key Performance Indicators ("KPIs")

KPIs are quantitative statistics that can be used to evaluate and monitor the performance of the operation. NETST does not evaluate or monitor the performance of its operation in a formal manner using KPI's. In preparation for adopting a formalized KPI monitoring policy, some analysis have been informally conducted by the Supervisor including, for example, a bus cost study and various route analysis.

Staff Management

Newly hired Transportation Clerks receive training on the use of the routing computer system from their peers. No formal training program or mandatory training checklist have been developed. Due to the small number of the Consortium staff, a formalized tracking system for staff training is not critical. The need for a formal training system is addressed in more detail in section 5.2.3.

Support Services

NETST is physically located in the DSBONE building. DSBONE charges NETST four thousand dollars ($4000) each school year to cover building related expenses such as rent, utilities, telephone and other related services. It has been agreed by the Governance Committee that IT, Accounting, HR and procurement services are provided by the DSBONE at no cost to NETST. No service purchase agreement has been signed either between DSBONE and NETST or the Partner Boards related to any of these services received by NETST.

3.4.2 Recommendations

Operational Plans

Although the Operations Committee and the Consortium have already taken steps to formally develop the goals and objectives of the Consortium, the process should be extended to include development of both short (less than 1 year) and long term (3-5 years) implementation plans. The implementation plans should be defined to help differentiate the issues that need immediate attention from those which can be implemented over a longer term. It is also essential that the Governance Committee review and approve the Plan annually to make sure that it reflects the strategic direction of the Consortium.

Cost Sharing between Partner Boards

The current method used by the Consortium treats all of the transportation funding receiving from the three Partner Boards as a single pool of funds to provide transportation to all eligible students from those boards. Although the intent of this funding driven approach of cost sharing between Partner Boards is to ensure that each Board is operating within its transportation funding, it does not reflect the true cost of the service that is being provided to each of the member boards. The potential situation of one Board funding the transportation activities of another Board is less easily determined. The current costing methodology also allows any cost savings as a result of efforts by the Consortium, such as route optimization, to the operators. It is recommended that the boards and NETST adopt a cost allocation methodology to allow NETST to charge each Board for the amount of services they receive based on the weighted number of students or by using other costing methodologies that are appropriate.

Monitoring of Key Performance Indicators ("KPIs")

NETST management, with guidance and approval from the Governance Committee, should identify KPI's which would be beneficial to monitor to assess the performance of the organization. In addition to performance monitoring, KPIs can be used to inform management decision making and as a method to ensure that organizational goals and objectives are being met. Below is an illustrative list of KPIs which should be considered for formalized monitoring:

- Eligible Unassigned Student Lists;
- Student Map Match Rates;
- Total Students Transported;

- Average Vehicle Statistics and other route statistics;
- Program Costs;
- Total vehicles in operation; and
- Student Ride Time.

Formally monitoring a relevant portfolio of KPIs allows the Consortium to quantify its performance. NETST can use the results of the analysis to generate realistic business improvement plans or make policy recommendations to the Partner Boards based on current and relevant data obtained through the KPIs. Additional examples are included in Section 5.4.2.

Contracts for Support Services

It is recommended that any support services provided to the Consortium by DSBONE, such as HR management, payroll, accounting administration, IT support and procurement services, should have contracts in place between NETST and DSBONE for these services. A formal signed contract or agreement protects NETST's rights in terms of receiving an agreed upon level of service. This is especially important in terms of the priority that NETST would receive. The contracts for support services should consider the inclusion of clauses that protect the mutual interests of each party. One such example would be to ensure that IT staff from DSBONE should be bound by confidentiality clauses for the role they play in database maintenance which contain student information from Partner Boards other than DSBONE.

Insurance

The Agreement clearly stipulates that any activity of the Partnership shall be deemed an activity of the Partner Boards. At the request of any Partner Board, each Board must provide to the Governance Committee proof that the Liability Insurance coverage is in place. Currently, all School Boards are insured by Ontario School Boards' Insurance Exchange ("OSBIE"), and the sufficiency of insurance coverage needs have been reviewed periodically. Furthermore, once the Consortium has formed itself as a separate legal entity, it is recommended that the Consortium investigate, with its insurance carrier, the applicability of, and need for, errors and omissions insurance for School Board Trustees and the management of the Consortium.

3.5 Financial Management

A sound financial management process ensures the integrity and accuracy of financial information. This includes the internal controls that exist within the accounting function

and ensures that a robust budgeting process is in place which provides for accountability in decision making. This section reviews financial performance of the Consortium over the past three years to gain an understanding of any major year over year variances. The purpose of this review is to understand what decisions the Consortium has made which have either increased or decreased transportation expenditures.

Financial management policies capture roles and responsibilities, authorization levels, and reporting requirements. The planning calendar refers to key dates for compliance, monitoring policies, or specifics to ensure proper segregation of duties. The policies infer that a proper financial internal control system is in place for the Consortium.

3.5.1 Observations

Accounting Practices

There are two main categories of expenses for NETST: (A) Direct Transportation Cost and (B) Indirect Transportation Cost.

A. Direct Transportation Cost

Direct Transportation Cost includes Bus Operators Costs and payments made to Taxi and Special Needs Vehicles.

Each year, the Bus Operators' Contracts are signed before the beginning of the school year. Ten equal payments are paid through DSBONE's bank account to Bus Operators during the school year. Similarly, NCDSB and CSDNE transfer their entire Transportation Funds to DSBONE through ten equal payments throughout the school year. At the end of each month, transportation accounts are reconciled and expenses are recorded under NETST's transportation budget line. The Supervisor periodically reviews DSBONE accounting system to ensure transportation related payments have been correctly processed. If an error is identified, immediate actions will be taken by the DSBONE Accounting Clerk.

Taxi and Special Needs Vehicle Operators issue monthly invoices to NETST for the services provided. The Supervisor verifies the invoices and authorizes the payments directly through DSBONE.

B. Indirect Transportation Cost

Invoices representing non-transportation related services or items are received by the DSBONE Accounting Clerk who is responsible for coding invoices and entering invoice detail into DSBONE's electronic Purchase Order system. The consortium Supervisor

reviews each invoice and signs off before payments are released. Once appropriate verifications and approvals have been received, the Accounting Clerk will input information into their financial system for processing.

Budget Planning and Monitoring

Instead of applying a “bottom-up” budgeting process that starts with the detail of expected or desired costs and accumulates the budget from the detail, NETST applies a “top-down” approach, which starts with each Partner Board’s annual funding from the Ministry in setting an overall, high level budget and then breaks it down into details.

The budget for NETST is prepared in June/July for the upcoming school year. The budgetary requirements from each of the partners are transmitted to each of the Board’s Governance Committee representatives via the Operations Committee representatives. Each Board approves its own transportation budget in June/July each year before the Boards’ Transportation budgets are consolidated by NETST.

3.5.2 Best Practices

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

- The financial management system implemented by the Consortium and DSBONE demonstrates sufficient internal controls and timely reporting. DSBONE’s financial management policies are appropriate. Checks and reconciliations conducted by the Supervisor and DSBONE clerk on a regular basis protect the Consortium and Boards against fraud and/or accounting errors; and

- NETST and its Governance Committee have an established process that ensures that annual budgets are prepared and approved on a timely basis. The “top-down” budget setting approach is efficient in time and effort. This proactive approach in budget setting is effective for fiscal consolidation, and it ensures that spending is aligned with NETST priorities.

3.6 Results of E&E Review

Consortium Management practices at NETST have been assessed as **Moderate**. The governance body consisting of a Governance Committee and an Operations Committee provides oversight to the Consortium while leaving the Consortium staff with sufficient freedom to carry out the daily operations related to student transportation. The financial

and budgeting process demonstrates that proper internal controls are in place to protect Consortium and Partner Boards' assets.

It is recommended that the consortium examine its entity status and the merits of establishing itself as a separate legal entity. Other opportunities for improvement relate to the finalization and approval of the Consortium's Operational Plans, development and formalization of the monitoring of key performance indicators, and establishment of contacts for the support services they receive from the Partner Boards.

4 Policies and Practices

4.1 Introduction

Policies and practices include the development, consistent application, and enforcement of operational policies, practices, and procedures that determine the standards of transportation service. The analysis for this section focused on the following three key areas:

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

This analysis was based on a review of submitted documents, extracted routing data, and onsite observations and interviews with Consortium staff. Best practices, as established by the E&E process, provided a point of comparison for each of these keys areas resulting in the following observations, comments, and recommendations. These results were used to develop an E&E assessment for each of the key components; and to determine the overall effectiveness of the Consortium's Policies and Practices as shown below:

Policies and Practices – E&E Rating: Moderate

4.2 Transportation Policies & Practices

4.2.1 Observations

Clear and concise policy and procedure development is an essential element of any effective and efficient transportation organization. Well designed polices clearly establish and define the parameters of the services that will be provided. Written practices, operational protocols, and guidelines further define how services will be designed and delivered. Policy harmonization, policy enforcement, and the degree to which practices and procedures actually adhere to established policies are equally important to ensure that services are delivered safely and equitably to the Partner Boards. This section will analyze the established polices, practices, and procedures and their impact on the effectiveness and efficiency of the services provided.

Annual Planning Process

The Consortium has developed and documented an annual planning process that encompasses both regular and special education planning. Prior to the start of school,

the process ensures that start-up materials have been prepared or procured including student training material, communications to parents, and criminal back ground checks by the operators. The planning process for the next school year begins in March with a review of routes and policies and procedures for potential changes. A test database is then established to begin the route analysis for the following year based on the student roll over. This process is almost completely manual where Transportation Clerks must review every record and make manual changes to eligibility for those students who have reached threshold grades. Prior to the close of school operators are notified of changes or decreases in routes, letters are generated to parents and contracts are prepared for the operators. Schools also receive multiple student listings to allow them to answer basic stop location or route assignment questions.

Policy Development and Harmonization

The NETST was established to provide services under policies developed and approved by the Transportation Governance Committee. A harmonized joint Transportation Policy manual was developed to provide guidance to Consortium management and staff in the daily provision of services and to ensure the safe and equitable service to Partner Boards. The Policy Manual defines critical planning and service parameters including: general eligibility guidelines and exceptions for dangerous walking areas, special needs transportation, and transportation of preschool students of registered parents. Walk distances, loading and unloading zones, stop safety considerations, adverse road and weather conditions, alternate pick-up location procedures are also detailed. Additionally, the Policy Manual establishes the responsibilities of the boards, parents, students, and drivers. A multi level process is provided for parents with concerns or to appeal transportation decisions. Supporting procedures have also been developed to provide greater detail in specific areas. Examples of these include; Special Needs Transportation, Cancellation of School Bus Transportation, Anaphylaxis, Car and Booster Seats, Emergency Procedures, and service delivery procedures.

Eligibility

Defining eligibility for transportation is a critical planning parameter as it determines the level of service that must be planned for and delivered. Walk distances to a stop and exceptions such as courtesy riders and hazardous areas further influences planning and can significantly impact the service aspects of bus runs and routes. Walk to stop and general eligibility policies are clearly stated in the Policy Manual and harmonized for all grade levels. In addition, practices allow for students of all grade levels from all Partner Boards to ride on the same bus. These policies are well structured to allow for the design of effective routes, particularly given the larger geographic area that the Consortium must service.

The Partner Boards have also provided parents and students with a degree of flexibility in the provision of service through an allowance for alternative stop locations. Accommodations are granted for alternative stops (caregivers) provided that there is consistency throughout the week as approved by the school principal and the Consortium. While no formal policy statement dictates how many changes any one student can have in a given period of time, operating practice generally allows for two changes before a special request for an additional change would have to be filed. This is a reasonable and appropriate approach at attempting to manage disruptions to the routing scheme while still providing parents and students with flexibility to meet changing child care needs.

Ride Times

Student rides times serve as an important indicator of the overall service level of the Consortium and provide an important route planning parameter. Established procedures stipulate that ride times will not exceed sixty (60) minutes each way where practical. An analysis of routing data indicates that a majority of individual student ride times (67 percent) are in fact less than 30 minutes with 79 percent of all riders with ride times of 40 minutes or less. More information on ride times and other planning parameters and their impact on routing effectiveness and efficiency will be discussed in the Routing and Technology Section that follows.

Courtesy Transportation

Interviews with staff indicate that courtesy transportation is not currently offered across the entire service area including no consideration for older siblings of eligible students. The establishment of courtesy transportation is generally designed to provide service to otherwise ineligible students if there is a seat available and without an increase in costs. This service offering must be periodically reviewed to ensure that it is not negatively impacting the overall routing network and also to ensure that the Consortium has definitive rider knowledge in the event of a bus accident or incident. A review of the Policy Manual indicates that transportation may be granted for other reasons deemed valid by the Director of Education of the Board. An analysis of student data indicates that while a relatively insignificant number of students are coded with this designation (42 students) the majority of the students in the database are not coded (approximately 95 percent) which prohibits an accurate analysis.

Hazard Transportation

The Consortium provides hazard transportation across the service area to accommodate local conditions such as train crossings, traffic volume and sidewalk conditions. Analysis of student data indicates that 123 students are coded to receive hazard transportation; however, as in the comments above, a complete analysis is not

possible with the current data. Each of the Transportation Clerks maintains a listing of hazardous areas; however, hazardous criteria are not clearly defined in either the Policy Manual or the supporting documented procedures. In addition, hazardous areas are not established in the routing software to facilitate student eligibility assignments. The establishment of clear hazardous definitions would ensure that local conditions are reviewed consistently and that service is offered on a fair and consistent basis.

Bell Time Management

Bell time management is another critical component that facilitates effective and efficient route planning. Having the authority to modify bell times for existing and new programs and schools removes a defining restraint which allows for more effective and efficient route planning. The Consortium is provided with an opportunity to suggest changes to bell time schedules for both regular and special education schools and programs. While Consortium staff indicated a great deal of cooperation in setting of bell schedules to facilitate effective planning, the lack of documented bell time change procedures may be detrimental in the event of a change in either Consortium or Board management.

Communication

A variety of communication tools are utilized to provide information to the school communities. These include informational pamphlets and route information that are mailed directly to a student's home address. The Consortium's website presents ready access to transportation policies, service parameters including walk distances, safety information including downloadable programs, inclement weather information, general FAQ's and links to each of the Partner Boards and regional weather media. All consortium information is available in both English and French including posted web site information. This is an effective use of the available media to transmit static information to interested users of the system.

4.2.2 Best Practices

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

- The Consortium's Policy Manual and the supporting procedures provides Consortium staff, parents, and the school communities with single point of reference facilitating clear communication and promoting equable service. In addition, the establishment and documentation of an annual planning process ensures that critical tasks are properly sequenced and appropriate resources can be allocated to complete the required tasks.

- The harmonization of policies and procedures among the Partner Boards further supports the role of the Consortium in its responsibility to determine the best available transportation plan and promotes fair and equitable service to the students of the Partner Boards.

- The Consortium has adopted a number of communication tools, including the use of web-based technologies, to communicate with its stakeholders. The adoption of these tools improves access to information and reduces the costs associated with stakeholder notification of changes to the system.

4.2.3 Recommendations

Policy and Practice Documentation Review

The Policy Manual and its supporting documents facilitate consistency in decisions and aids in the clear communication of service parameters to stakeholders. Continued evaluation and refinement of these documents will further support the Consortium's ability to deliver consistent and equitable service. Examples of policy areas where additional clarity would potentially benefit the Consortium include hazardous definitions and bell time management as discussed in the sections above.

4.3 Special Needs and Specialized Programs

For a transportation system to be fully effective, it must be able to address the needs of all students served including those with special needs or those attending special programs. Effective planning must consider the specific needs of the student including behavioural concerns, special equipment operation and the mobility of the student, medical conditions that may require medicine administration, student assistants, and the time and distance tolerance of each student. Specialized and centre based programs face similar challenges as transportation is often required from remote areas. Inclusion of special needs students on regular education routes can reduce the cost and service pressures these programs place on the system by utilizing the entire fleet to the highest degree possible and reducing the need for additional special purpose vehicles. This section examines the policies and practices that determine the planning and service delivery for special needs and specialized transportation and how well practice conforms to established policies.

4.3.1 Observations

Special needs transportation is supported by both policy statements and documented special education procedures. The Policy Manual recognizes school administrative personnel as responsible for documenting the specific health needs and contact information of the student and providing written documentation to parents, drivers, operators, and the Consortium. Transportation Clerks will work with school staff to determine the most appropriate mode of transport for the student. The Consortium has the authority, where appropriate, to place special needs students on regular education runs in an effort to better control costs and improve service levels.

In order to promote effective service delivery, a procedural infrastructure has been established to support both operators and drivers. Supporting procedures include general special needs procedures, detailed anaphylactic procedures, car, and booster seat use and installation, eligibility for temporary service, securing of wheel chairs. A comprehensive Driver's Manual details procedures for loading, equipment securing, detailed discussion on types of disabilities, and first aid and seizure recognition. These documents are designed to promote the consistent delivery of quality service. The Consortium has established practices to track driver safety training compliance. These practices include a periodic review of training certificates of both drivers and attendants. While the contract clearly stipulates the type of training, no compliance timeline is specified for either current of new drivers. However, interviews conducted during the review indicated that many drivers are not trained in CPR, first aid, and use of the EpiPen. The records reviewed do not clearly establish how long each individual driving has been employed without the benefit of formal training. This analysis also indicates that all of the attendants have valid certificates on file. No specific follow up procedures are established to ensure that the necessary training is provided. The lack of an established record management and audit procedure is a serious concern that must be remedied quickly.

4.3.2 Best Practices

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

- The inclusion of special needs students on regular education routes is an excellent example of policies that supports the Consortium in it's ability to plan for the most efficient and effective mode of transportation for all students.

- The Drivers Manual is comprehensive providing drivers with ready information that supports the safe transportation of special needs students. In addition to operational requirements, information is provided to assist drivers with student communication and management. The detail in the anaphylactic procedures

serves as an excellent example of the detail that was considered and included in the development of these documents. This best practice is notwithstanding a recommendation below on the monitoring of driver training requirements.

4.3.3 Recommendations

Policy Review and Audit Process

The Consortium should immediately establish an operating practice to document and analyze driver training requirements. This process should address all training elements and identify the periodicity of, responsibility for, and curriculum required for each event. The establishment of this type of documentation will ensure that well crafted, well intentioned policies have the expected impact on transportation safety and effectiveness.

4.4 Safety Policy

Student safety is the foremost goal of any school transportation system. In support of this overriding goal, operational practices must be based on clear and concise safety policies and procedures. Equally important are the supporting training and safety programs that promote a culture of safety with students, parents, drivers, and local communities.

4.4.1 Observations

The safe transportation of students is demonstrated by the Consortium by the many references within applicable policies and procedure statements. The Policy Manual includes procedures or references to safety including, safe walking route concerns, bus stop safety and parent responsibilities, alternate stop considerations, video cameras, and weather conditions, The Consortium's web site provides ready access to documented policies and has downloadable safety presentations for use by parents.

Student Training

The Consortium participates and supports a number of safety programs for its students including Young Rider Days program, pamphlets including *Parents as Serious Traffic Hazards*, the distribution of placemats with safety messages, and calendars with school bus information and safety messages. Additional training is provided by a combination of local school bus operators and police departments in area schools. Additionally, parents are required to document a review of transportation policies with their student which includes responsibilities for students, parents, and drivers. Parental

responsibilities include ensuring that JK/SK students are met by a parent or guardian at their assigned bus stop.

Driver Training

All drivers receive a copy of the Drivers Manual as described in section 4.3.1. Responsibility and requirements for driver training have been assigned to the operators through their service contracts. A review of a contract language indicates that drivers and attendants must hold valid first aid certificates and including CPR and EpiPen training.

4.4.2 Best Practices

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

- The Consortium has demonstrated its commitment to safety and training by its development of policies and the provision of direct training programs to students. However, as detailed in Section 4.3.3 continued oversight of training requirements is required to ensure effective implementation.

- Requiring parents to confirm that they have read and reviewed the Consortiums policies on safety with their student is further evidence of the priority that the Consortium places on the safe transportation of students.

4.4.3 Recommendation

Operator Training and Documentation

In order to ensure that the established procedures are being implemented in practice, the Consortium should develop a formalized driver training auditing process to ensure compliance and consistency in driver training regardless of operator affiliation. Establishment of effective policies without proper oversight or enforcement negates much of the good that can come from them. Development of an audit program that ensure all operators, students, schools, and other stakeholders have complied with the desired training programs will further enhance the safe transport of students.

4.5 Results of E&E Review

Policies and Procedures development and implementation has been rated as **Moderate**. The Policy Manual and the supporting procedures provide the necessary guidance for the daily decisions of the Consortium. The Driver's Manual is an excellent resource for each operator and helps to provide consistency in training across the service area.

A critical undertaking is the establishment of an oversight and audit procedure relative to training requirements. Ensuring that drivers are fully trained is absolutely imperative for safety. Establishing this process as soon as possible and requiring remedial training where necessary should be the major priority for Consortium managers. Further policy refinement in areas such as courtesy and hazardous transportation along with additional responsibility for bell management will further enable the Consortium in achieving its effectiveness and efficiency goals.

5 Routing and Technology

5.1 Introduction

Routing and Technology considers the management, administration, and use of technology for the purpose of student transportation management. The following analysis is the result of 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 of these key components has been analysed based on observations of fact including interviews with Consortium staff and the review of extracted routing data. The results are compared to best practices leading to a set of recommendations. These results were used to develop an E&E assessment for each component, which is then summarized to determine an overall E&E assessment of Routing and Technical efficiency as shown below:

Routing and Technology – E&E Rating: Moderate

5.2 Software and Technology Setup and Use

Effective management and route planning for a large transportation system requires the use a modern student transportation routing system. These systems allow for the management and analysis of large volumes of student data providing managers with information on which to base decisions that both maximize the use of assets and provide services within established parameters. To fully capitalize on the capabilities of any routing system, it must be fully implemented with well designed coding structures based on well defined and implemented transportation policies and practices. A fully implemented system allows for the easy extraction of data enabling effective route planning, route analysis, and reporting to all stakeholder groups. This section of the evaluation was designed to evaluate the acquisition, setup, installation, and management of transportation related software.

The Consortium has expressed an interest in evaluating alternative route planning software. Where possible, observations and recommendations are made that will be relevant whether or not a change of software occurs. However, the observations,

analysis, and recommendations presented below are based on evaluation of the implementation and installation of the existing routing software.

5.2.1 Observations

Routing & Related Software

The Consortium is currently utilizing routing software from Micro Analytics, Inc. (*BUSTOPS*). The original implementation established three separate databases with three separate corresponding maps. The Consortium has recently transitioned from three maps to two with Timmins and the northern area sharing a common map. While the region to the south remains as a separate map, each of the Transportation Agents has access to the entire service area and is able to provide support to each other and information to stakeholders. The use of multiple databases and maps creates difficultie s in data extraction and impedes accurate data analysis. Additionally, separate maps require additional effort for Consortium staff as they must leave one database before they can access the data for the other region.

The Partner Boards use a combination of *Trillium* and *Maplewood* student software. Monthly extracts are provided containing new student admissions and transfers, retirements and address changes. Manual manipulation of the data is required for all changes to student records as there is not currently an interface employed that allows for the automatic uploading of data. The impact of this is clearly seen during the annual rollover of data. Each spring the Consortium receives an extract of current and newly enrolled students. Each student record must be compared against the current record in *BUSTOPS* to ensure accuracy. All new enrolments and kindergarten students must be manually entered into the system. This requires a significant effort on the part of the Transportation Clerks whose efforts would be better focused on effective route maintenance, planning, and management.

Maintenance and Service Agreements

The Consortium operates *BUSTOPS* on a Local Area Network (LAN) from a server located in the Consortium's office. Technical support for the network and backup assistance is provided by District School Board Ontario North East. Although formal backup procedures have not been documented by the Consortium, practices, as dictated in communications between Consortium and IT staff, ensure that a full backup occurs automatically on a daily basis. Monthly backups are stored off site, on a rotating monthly basis, at the private home of a technology staff member. The establishment of formal procedures and an agreement with the Board, including appropriate confidentiality clauses to ensure the protection of student data, should be established to define both a costing structure and to ensure that the level of service is also well defined

and performed. The Consortium contracts directly with MircoAnalytics, Inc. for direct phone and online software support. Areas of support include procedures for student downloads, importing data, data transfers, training, and data analysis. The system maintenance and support structure provide the Consortium with adequate data protection and technical support.

System Setup and Use

The Consortium has designed the system setup to mirror its organizational structure. Two independent systems have been established that reflect the northern and southern service areas. Each of these systems includes its own map and student databases. While the use of independent databases and maps generally does not inhibit the planning of runs and routes due to the separation of population centers, it greatly inhibits the ability consistently manage the map and fully analyze system performance.

Enforcing consistent map editing procedures, data entry procedures, coding protocols, and reporting routines is complicated by the current setup. Additionally, analysis of system performance is further complicated by the need to extract data from both of the databases, collate the information, and normalize any inconsistencies in data entry protocols prior to the performance of any analysis. This impact is somewhat mitigated by the establishment of user permissions that allow each Transportation Clerk full access to both databases. However, data collected as part of the review indicated that this approach has not eliminated inconsistency of data or greatly simplified data extraction procedures.

Staff Training

Training on *BUSTOPS* is primarily from managers and senior employees. The annual software support contract provides direct internet and phone support to staff and includes access to tutorial programs. Each of the Transportation Clerks is provided with an operational manual that details the procedures to be followed to perform many of the key routing-related tasks. While most training has generally been provided ad-hoc, all Consortium staff demonstrated a level of competence with the system's functionality that allows for targeted training in specific aspects of system use that can be particularly useful and cost effective in smaller organizations. A structured training program (pending the full implementation of a coding structure) should be considered to provide Transportation Clerks with additional knowledge and the ability to examine alternative routing approaches that may lead to improve efficiency and effectiveness.

System Coding Structures

The effectiveness of routing system is dependent on the design and implementation of an effective coding structure. Effective coding allows for the extraction of specific data records within the system enabling the analysis of system performance and pertinent reporting data. A well designed, hierarchical coding structure allows for the easy identification of service types such as, students with special needs and special requirements, hazardous transportation, and other specific route, run, and student information. This structure should be designed to provide the information regularly needed by the Consortium for both reporting and analysis and need not be overly complex. Regardless of whether the Consortium changes software systems, the design and implementation of an effective coding structure is of utmost importance to achieve maximum performance.

The Consortium has recently taken steps to expand its coding structure which will allow for the greater utilization of the routing system enabling the extraction and analysis of important performance information. A system of numerical and alphabetical codes has been developed to aid in identification of students and the type of transportation required. These codes when coupled with school of attendance will allow for the identification by student by eligibility, special program, and medical and other needs. While the basis for a comprehensive coding structure has been developed, an analysis of extracted data indicates that approximately 95 percent of student records are not yet coded with a base eligibility code. Whether the consortium transitions to a new software program or elects to continue with *BUSTOPS*, the full implementation of a coding structure is imperative for the analysis of data and system performance.

5.2.2 Best Practices

It is recognized that the North East Tri-Board Student Transportation Consortium has demonstrated best practices in the following area:

- The development of the coding structure (when fully implemented) will allow for a vast improvement in the Consortium's ability to extract, analysis, and report on critical elements of system performance.

5.2.3 Recommendations

Coding Structure Implementation and Routing Software

It is recognized that the setup and use of the *BUSTOPS* system and the implementation of the coding structure continue to be an evolutionary process within the Consortium. It is also equally apparent that until a firm decision is made on a permanent routing

software solution, much of the effort in fully implementing the current system may not be an effective use of resources in the event there is a change in software. Therefore, it is recommended that the Consortium, as quickly as possible, determine the best software solution that will meet the needs of their service area and their Partner Boards. It is also recommended that in the event that the Consortium elects to remain with their current software, the Consortium would benefit from obtaining assistance from other Consortia in their full implementation of *BUSTOPS*.

Staff Training

It is recommended that a regular program of staff training be implemented with a focus on effective route planning and basic data analysis. Given the current organization structure whereby each Clerk is responsible for all aspects of transportation planning within their designated region, training would help to ensure consistency in route planning and the consistent application of policies and procedures. Formal training specific to the routing software application should also be considered (pending a decision on a provider as discussed above) to fully train Clerks in the capabilities of the software in providing data for reporting, analysis of performance, and route optimization.

5.3 Digital Map and Student Database Management

Accurate student data and system maps are of paramount importance as they provide the foundation for any effective student transportation routing system. This area of the E&E Review was designed to evaluate the processes and procedures in place to update and maintain student data and the digital map.

5.3.1 Observations

Digital Map

Map maintenance is performed by each Clerk within their area of responsibility. There has been limited formal training in what elements of the map must be maintained and on what schedule. All changes, including any new developments are drawn manually. Given the sparse density within the service area, not all areas have correct emergency 911 addressing. While there is reportedly little new development, exploring the availability of digital maps for import into *BUSTOPS* may reduce the amount of effort required by each Clerk for map maintenance.

Student Data Management

The *BUSTOPS* database contains student records for the entire enrolment of each of the Partner Boards. Monthly downloads are provided by each of the Partner Boards containing new student admissions and transfers, retirements and address changes.

Manual entry is required for all changes to student records as there is not currently a mechanism for the automatic importing of student data into *BUSTOPS*. Annually, a comprehensive download of student date is received from each of the Boards. Each student record is verified for accuracy as compared against the current record in *BUSTOPS*. All new enrolling and kindergarten students must be manually entered into the system. Not only does this place additional work load on Consortium staff, the manual entry of data introduces many opportunities for mistakes and the resulting duplication of effort. The data file extracted as part of the review process indicated inconsistencies in student eligibility assignments and other data fields that were likely introduced as a result of the need to manually manipulate every record.

5.3.2 Recommendations

Digital Map Maintenance

While the availability of external map resources may be limited, it is recommended that the Consortium investigate the availability of electronic maps that may be available from local or provincial sources. This type of sourcing would help improve map accuracy and minimize the manual map alterations that would be required. As part of the Consortium's evaluation of potential new routing software, the ease of importing digital map data should be considered as part of the evaluation criteria. The assignment of map maintenance to one staff member should also be considered as the use of the current system evolves or upon implementation of new software.

Student Data Management

The Consortium should investigate the automatic exchange of student data to reduce the manual effort required to maintain student information and reduce the extraordinary amount of effort required to check every student record during the annual planning process. As in the recommendation above, the ease of importing student data should be a primary consideration when evaluating new routing software.

5.4 System Reporting

The effectiveness of reporting is dependent on both the capability of the system and abilities of the users. The analysis of data and the subsequent reporting of the findings provide transportation management with the means to track performance for the early identification of trends that may have a negative impact on service or costs. Concise reporting aids in communication to better inform both internal and external stakeholders. The purpose of this aspect of the review was to evaluate what reports are typically generated, who receives these reports, and what capabilities exist to develop ad hoc reports.

5.4.1 Observations

Reporting and Distributing Data

The Consortium utilizes *BUSTOPS* to generate a limited number of reports including daily reports to school bus operators with new or changed student information, annual operator route reports generated prior to school start-up and again in October and February, and informational letters to parents. The Transportation Clerks are all competent users of the report generation functionality of the system. The primary issue associated with data collection as part of the review was the confusion created by separate databases and incomplete data entry. The reporting functionality is currently used primarily for report generation purposes, not to conduct routing analysis or for performance measurement.

Transportation Clerks and Consortium managers make limited use of productivity software and virtually no use of related software applications to assist the Transportation Department, schools, Operators, Drivers, and parents regarding transportation services. This is a significant weakness as it applies to communication and transfer of information among the various transportation stakeholders. Information dissemination is limited to the printing and distribution of summary and detailed route reports to Operators and schools with most information flow via voice and fax.

Performance Measurement

Reports supporting the analysis of performance measures include no load reports to remove stops with no students, student arrival and departure reports, student distance reports for route planning, transfer reports for operator and school use, and vehicle information reports. Operator performance is primarily tracked utilizing a simple table which tracks reported concerns and recommended corrective actions. This area provides another example of where a hierarchical coding structure will benefit the Consortium in its analysis and reporting of data.

5.4.2 Recommendations

Reporting and Performance Measurement

The Consortium should introduce a systematic approach to performance assessment as part of their annual operation activities. The Consortium should identify and collect data elements conducive for performance analysis by evaluating what the most important data elements are and the schedule for utilizing the data. This analysis can then be used to establish a proactive reporting schedule to reflect these requirements. These reports could include:

- a daily student change log for each Clerk;
- a weekly route change report for Clerks;
- a quarterly performance operations report for the Transportation Supervisor that provides summary statistics and detailed data on issues such as capacity utilization, route pairing, average run times, and lateness; and
- an annual operational summary to the Partner Boards that summarizes key performance statistics such as the direct and indirect cost per bus, cost per student, and cost per kilometre.

This reporting structure could then be used to guide the scope of the annual efficiency reviews conducted within the Transportation Department.

5.5 Regular and Special Needs Transportation Planning and Routing

Effective route planning provides the foundation for the efficient delivery of transportation services for both regular and special needs transportation. While route planning for regular education students is largely based on the constraints established by policies, route planning strategies for special needs transportation must first consider the needs of the students while operating as efficiently as possible. This portion of the review was designed to evaluate the strategies, tactics, and processes used to provide transportation to regular and special education students and the approaches used to minimize the cost and operational disruption associated with both types of transportation.

5.5.1 Observations

Analysis of Overall System Effectiveness

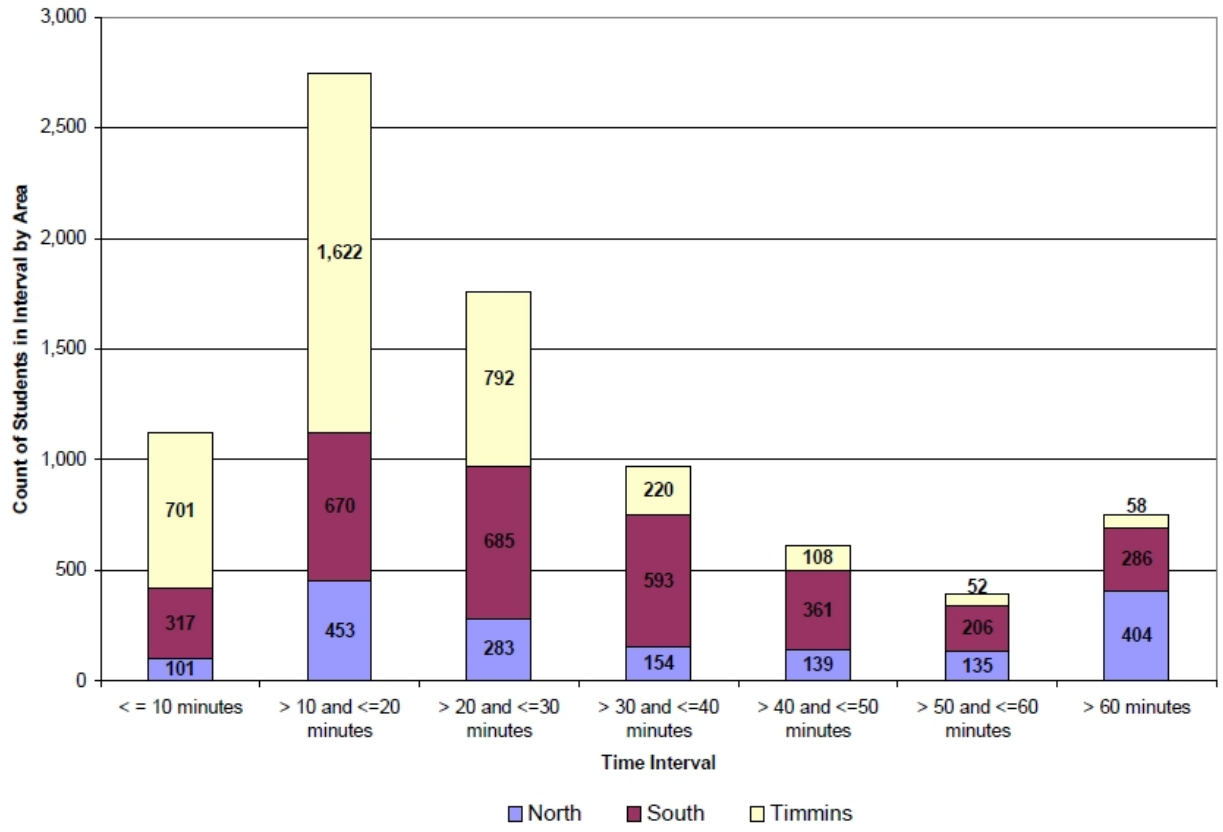
The Consortium serves over 8,000 students within a large area of approximately 25,000 square kilometres. Multiple operators are utilized with a combined fleet of over 220 buses on over 500 runs[8]. Given the geographic separation of the service areas, route planning is specific to each region for both regular and special education students. The Consortium has chosen two primary routing approaches to address the challenge of working within this large service area. The primary strategy is to establish combination runs that include students from each Partner Board on the same bus run. Transfer runs

[8] The counts in the routing analysis are based on data extracted from the routing software during the onsite portion of the E&E review. They may not match the values used elsewhere in the report which are based on data submitted by the Consortium at a prior date.

are also established where students must travel from the outlying areas into more central locations. Additionally, the bus runs in the Timmins area utilize a tiering strategy where possible given the greater density in this area. All of these strategies are designed to promote system efficiency and minimize student ride time where possible.

Student Ride Times

This data evaluates individual student ride data based on when students are picked up at their stop and dropped off at school in the morning. The average student ride time is 30 minutes. While this average is well within established route planning parameters of 60 minutes maximum ride time. The following graph illustrates the ride time interval by student and area:



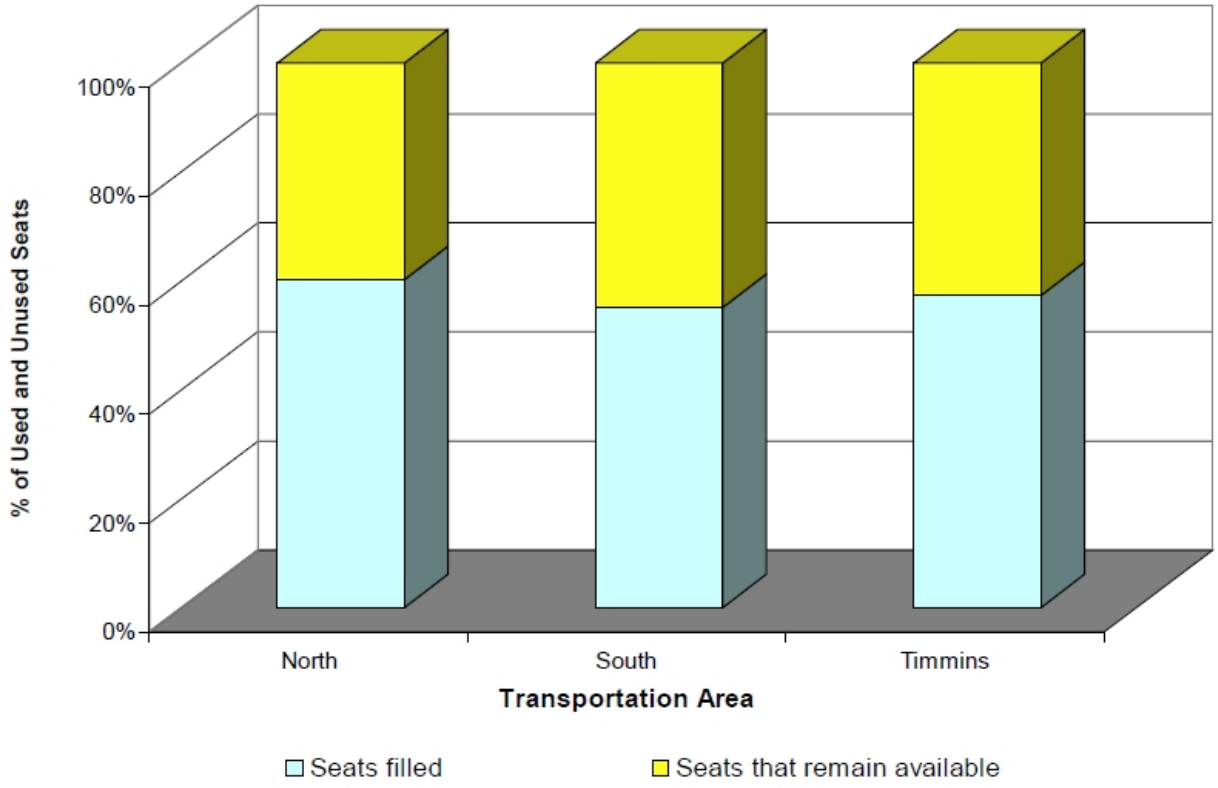
As the graph illustrates, the frequency at which student ride times are approaching or above the ride planning parameters is approximately 14 percent (1,141 students out of 8,340 total students) when considering runs 50 minutes and longer. The ride times demonstrate that students in the more urban areas have, not surprisingly, shorter ride times. As expected, shorter ride time are most prevalent in the Timmins area where approximately 88 percent of all student ride times are under 30 minutes with 65 percent under 20 minutes. However, the data also indicates that the majority of all student ride times (approximately 67 percent for a total of 5,624 students) are well within ride time

parameters at 30 minutes or less with approximately 79 percent of all ride times under 40 minutes.

Capacity Utilization

The average simple capacity utilization across the fleet is approximately 58 percent. This is determined by taking an average of utilization on all runs, with utilization calculated for each run by dividing the rated capacity of the bus and dividing this by the maximum student load on the run. The following chart illustrates the number of students assigned to a bus for all morning routes:

Seating Capacity Utilization



The graph indicates that approximately 4 of every 10 seats are expected to be empty. This value somewhat overstates the number of actual seats that might be available because any student weighting factor would act to essentially reduce available capacity. Board policies weight secondary students at 1.5 which lowers the effective capacity of a bus by permitting only two students per seat compared to the rated capacity of three students per seat. The reduction is available seating capacity given the same number of students would result in higher capacity utilization.

Despite the cautions on utilizing simple capacity ratios without student weighting factors, the planned rate of 58 percent is lower than industry best practice of approximately 70 to 80 percent planned capacity use. While lower capacity may be partially attributable to factors including low student density in some service areas and expected lower capacity utilization of special needs runs, the percent of unused capacity is fairly consistent across the service area regardless of density. This is most likely the result of established planning parameters. In conjunction with evaluating student ride time and bell times, a comprehensive review of all routes should be undertaken to fully understand the potential for routing strategies that may include lengthening ride times (within policy), increased capacity utilization, and double runs. These factors may also be influenced by the overall bell schedules in each of the regions as discussed below.

Bell Time Management

Bell time management is a critical component that influences effective and efficient route planning. Having the ability to modify bell times for existing schools and to set bell times for new programs removes a constraint which allows for more effective and efficient route planning. Although the Consortium is provided with an opportunity to suggest optimal bell time schedules, having the ability to determine bell times allows for greater scheduling alternatives with greater potential for cost savings.

5.5.2 Best Practices

It is recognized that the NETST has demonstrated best practices in the following area:

- The use of combination routing strategies that place students from each of the Partner Boards on the same run. Given the large geographic area there is a need to explore as many alternative routing schemes as possible in order to promote efficient and effective service delivery. The use of combination runs is a highly effective and useful strategy to transport students.

5.5.3 Recommendations

Routing and Bell Time Assessment

While the use of combination runs is an effective strategy, additional system improvements should be considered to improve the use of existing seating capacity. It is recommend that a complete routing and bell time assessment be undertaken across the entire service area to analyze the potential for cost savings without adversely affecting levels of service. Potential changes in bell times, most likely in the Timmins area, may result in greater opportunities for tiering with multiple and combination runs per bus. Consideration should also be given to the type of vehicle being used on any given run.

Given that existing contractual provisions provide for different rates depending on vehicle size, incremental cost reductions may be realized if unit sizes are more closely matched to expected student loads. In addition, consideration of additional shuttle and transfer runs should be explored in an effort to improve system capacity use.

5.6 Results of E&E Review

Routing and Technology use has been rated as **Moderate**. The Consortium has demonstrated great progress in its implementation of *BUSTOPS* with the development of a coding structure and its reporting capabilities. In addition, multiple routing strategies are in place to promote the efficient use of resources.

A primary concern in the routing network is the fact that nearly 4 of 10 seats remains empty despite ride times of approximately 30 minutes. The Consortium should evaluate the impact that marginal increases in run length would have on the ability to use existing seating capacity and on the number of buses required. The primarily obstacle that may impede the Consortium from achieving their greater effectiveness and efficiency is the need to improve data quality and have greater influence over bell time setting.

6 Contracts

6.1 Introduction

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

- Contract Structure;
- Contract Negotiations; and
- Contract Management.

Each component has been analysed based on observations from information provided by the Consortium, including interviews with Consortium management and select Operators. The analysis is comprised of 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 Contracting Practices as shown below:

Contracts – E&E Rating: Moderate

6.2 Contract Structure

An effective contract 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, ensuring 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

Contract Clauses

NETST has established a standard contract for the Bus Operators. The agreements are structured to delineate service expectations and define the possible consequences if an Operator were to fail to meet those specifications. The contracts include provisions on the obligation for bus operators/drivers to comply with federal and provincial vehicle safety and driver training requirement; vehicle specification requirements; and insurance coverage. In addition, the contract includes adequate details regarding contract term,

renewal, and termination clauses. Schedule A and Schedule B of the contracts contains the rate calculation sheet and annual payment schedule (the Operator compensation is discussed further in the following section). Contracts with the School Bus Operators also include provisions for the special needs vehicles services (24 passenger and wheel chair accessible buses) along with any required attendants.

All bus contracts are entered into by the three Partner Boards and the individual bus Operators. The Operator signatures were obtained before the start of the 2007/2008 school year. However, clauses regarding fleet age and bus spare ratio have not been included in the Operator contract.

Currently, there is no contract in place for the Taxi and Summer School bus services- i.e. those services are being provided without formal contracts. The Consortium has plans to have them in place for the 2008/2009 school year.

Operator Compensation

The Bus Operator compensation is based on a two-part mechanism that includes fixed fees and variable fees.

6.2.2 Fixed Fees

Annual Fixed Fees is equal to:

- Depreciation & Financing for Buses Less than 10 Years
- Driver Wage costs & Benefits
- Other Fixed Fees (License Fees, Insurance, Parking, etc.)
- Annual Gross Profit and Administration

The fixed fees components include appropriate elements of the Operators fixed cost structure including capital costs based on 10 year straight line depreciation schedule, driver wage costs, insurance, and other administrative and overhead costs. It is noted that the fixed costs include benefits equal to approximately 20% of wages.

6.2.3 Variable Fees

Variable Fee is equal to:

- Cost per Kilometre

- Other Variable Costs (Noon Wages, Driver / Attendant Wages & Benefits, Additional Wages per KM in Excess of 100km, double run)

Variable fees incorporated into the rate formula include adjustment for multiple runs, a per kilometre operating component to address fuel and maintenance costs; noon wage adjustment; driver / attendants wages and benefits; and additional wages per kilometre in excess of 100 kilometre excluding kilometres related to noon-time runs. Separate calculations are developed for different sizes and types of vehicle e.g. 24 passenger, 72 passenger, wheel chair vehicles. The bus contracts are based on operating for the full school year (based on 188 school days per year). Bus Operators are paid in full for each of the 188 school days even when service is cancelled due to inclement weather (a “snow day”).

Schedule B of the Bus Operator Contract is used to calculate the total contract value for each of the Bus Operator. Schedule B contains information such as bus size, number of buses, seats, daily mileage, and fuel payment per kilometres. NETST consolidates Schedule B transportation payments for all bus Operators and forwards the preliminary summary payment list to the accounting department of DSBONE before school year starts. The preliminary summary payment list is verified and signed off by the DSBONE accounting clerk. A total of ten payments are made to Operators on the fifteenth of each month according to the initial payment schedule until a revised summary payment list is prepared by the Supervisor in the middle of the year (or on an as needed basis) to reflect updates in the payment schedule.

Due to the fact that variable rates such as daily variable cost, fuel payments per kilometre in Schedule B have not been updated since the formation of the Consortium in 2005, total contract values calculated from Schedule B payment formula no longer reflect the real business cost of the Operators. NETST supplements the terms within the payment schedule with four payment adjustments throughout the year to the Bus Operators. The adjustments are allocated based on a proportion of total kilometres travelled by each Operator. The adjustments are paid out to Operators in September, July and December. The school bus Operator formula is currently under review by the Consortium management.

Compensation for taxi Operators is generally based on a flat rate. Summer School bus services are paid based on the current regular contracted bus daily rates.

6.2.4 Best Practices

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

- Standard contracts exist for regular school bus and special needs vehicles. By having a formal signed contract in place with the Operators, the Consortium legally transfers part of the operational risks to the Operators. It also ensures that the students of the Partner Boards receive consistent service quality.

- The remuneration clauses in place for the bus operators are explicitly stated in the bus contract. This is a key term within the contract and sufficient detail and consideration is given to this clause within the contract.

- The contracts are signed by the Operators well before the start of the school year. It is very important to have all operator contracts signed before the starts of the school year. NETST made a considerable effort in terms of its planning and negotiation with operators and this effort yielded good results in terms of having timely contracts in place. Having signed contracts before the start of the school year ensures that terms and responsibilities are agreed upon in advance.

6.2.5 Recommendation

Snow Day Compensation for Operators

In cases where inclement weather prevents the buses from safely operating, or there is a school closure as a result of inclement weather, the school bus Operators will still be paid the “regular” amount—which includes payment of the fixed and variable components of the contract. It is recommended that only fixed cost should be paid to the Operators to compensate for their effort to ensure the fleet of buses are ready to resume duty when the inclement weather passes by. Variable costs such as per kilometre costs and attendant costs that do not occur on that day should not be paid by the Consortium.

Payment Adjustment to Bus Operators

Based on this year-end funding adjustment methodology, any efficiency gained by NETST through route optimization is returned to the Bus Operators. Furthermore the methodology perpetuates any Board specific deficit by not allowing the value obtained from economies of scale and integration of transportation services to be leveraged by the school Board.

In order for the School Boards to use the transportation funds in the most efficient manner, it is recommended that the Consortium management works closely with the Operations Committee to develop a stand-alone Bus Operator compensation payment schedule that truly reflects the market cost for providing the student transportation services.

Flexibility can be built into the payment model to reflect fuel escalations and other unpredictable price changes that influence the total contract value. This approach will not necessarily reduce the direct transportation costs to NETST, but it does allow the Consortium to derive the cost base for its bus contracts and is a better mechanism to ensure that accountability for student transportation is appropriately shared between the Consortium, School Boards and the Operators. Please refer to Section 6.2.3 for recommendations on the development for the School Bus Operator compensation payment model.

Taxi and Summer School Bus Contracts

Written contracts should be established with taxi companies and those Operators who provide summer school bus services. The lack of contract documentation for these operators increases risk exposure to the Consortium and the Partner Boards. It is important that all vehicles used to transport pupils are in compliance with the Ministry of Transportation license, insurance and safety requirement, and the drivers have received all appropriate trainings that are mandatory to provide student transportation services.

Regular School Bus Contract Compensation

The current fixed fee structure includes a lump sum depreciation and financing fee for buses less than 10 years old. When a vehicle reaches full depreciation (10 years), the Consortium eliminates the fixed payment. However, any saving gained by the Consortium is returned to the Operators at year end. In recognition of this fee structure, the local School Bus Operators have the incentive to maximize profits by purchasing only used school buses that are less than 10 years old to take advantage of that initial drop in vehicle value after the first few years of vehicle use. The Consortium should examine the payment structure so compensation is commensurate with the age of the vehicle and the situation where a brand new bus is compensated to the same extent as a 9 year old bus is avoided.

NETST management has realized that the current compensation structure for Bus Operators no longer meets its purpose, and is working towards developing a new Payment Schedule that can be implemented for the next school year. It is recommended that flexibility be built into the new compensation payment model so that it captures fluctuations in variable prices and changes in the number of school days to reflect the real costs.

Fleet Age Requirement

The Consortium should incorporate a maximum fleet age requirement in the current contracts. It is important to set standards and policies with regards to the age of vehicles as there is a higher risk that older vehicles will require more maintenance and

will not include many of the safety features of newer buses. For school buses that are older than the threshold determined by the Consortium, they can be retained by Operators as spare buses should the Consortium support this in their policies. Maintaining a healthy spare bus ratio can allow the Operators to adequately cover for the peak buses that are out of service due to maintenance or breakdowns. The Consortium should request Operators to maintain certain spare bus ratios based on their fleet age, effectiveness of the maintenance program, climate, operating condition and fleet mix.

6.3 Contract Negotiations

Contract negotiations 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 efficient market prices.

6.3.1 Observations

Bus Operator Contract Negotiation

The Operators providing services to NETST have generally been doing so for a long time. As a result, the contracts established with Operators are based mainly on past practices. The Operations Committee represents NETST to negotiate with representatives from the local School Bus Operators Association (“BOA”). Under the terms of the negotiation, no Operator can be provided a contract unless they are a member of the BOA. Use of the BOA provides for efficiency in negotiation processes from the point of view that NETST can engage in discussion with a single unified entity.

Since NETST in the past did not change contract rates and funding allocation formula, operators are familiar with the terms in the contracts and contracts were signed well before the start of the school year. The contracts with operators do not obligate the Consortium to provide any financial adjustment at year end however historically the practice described in section 6.2.1 has been consistently followed.

Once an agreement is reached with the BOA, it is signed by the Senior Financial Officers from each of the Partner Board, the Supervisor and the individual Operator.

Other Vehicle Contracts Negotiation

Taxis are used typically for transporting a very small number of students assigned to specialized programs, students who have medical requirements or for students who cannot be integrated on a general needs bus. In some areas, there is only one Taxi Company to provide the service, no formal contracts are in place with the taxi company

for student transportation services and there is also no competitive procurement process used to short list or to obtain services from Taxi operators.

Summer School Bus Contract Negotiation

When requesting summer school services from the school bus Operators, the Consortium sends out a written memorandum with detailed terms and conditions, and are subsequently accepted or rejected by the Operator. There is no competitive procurement process used to short list or to obtain summer school busing services.

6.3.2 Recommendations

Competitive Procurement Process

Contracts for transportation services are currently not competitively awarded. By not engaging in a competitive process, the Consortium will not know whether it is paying best rates for services provided. If a competitive process is used to procure contracted services, the Consortium can clearly state all service requirements in the procurement document. In addition, Consortium can be sure that it will obtain the best value for its money as Operators will compete to provide the required service levels at prices that ensure they earn an appropriate return on investment. This may not mean that rates will decline; however, the concern for the Consortium should be to obtain value for money expended for service provided. A competitive procurement process may not be appropriate for all areas or routes under service depending on the available supply of service providers.

A competitive process should be used with certain safeguards in place to protect the standards of service. The Consortium should continue to enforce limits placed on the amount 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 bid or 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.

In areas where this process may not be appropriate, such as remote areas where there may not be many operators interested in providing the service to a particularly remote area, the current negotiation process may serve the needs of both the Operator and the Consortium. The Consortium, however, can use the competitively procured contracts as a proxy for service levels and costs negotiated with the more rural Operators.

6.4 Contract Management

Contracting practices do not end after a contract is signed. Ongoing monitoring for 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 agreed upon. Monitoring should be performed proactively and on a regular and ongoing basis in order for contract management to be effective.

6.4.1 Observations

Monitoring

NETST has an established process of contract monitoring that addresses the safety requirements. The Transportation Clerks maintain a Driver Complaints Log. This log is important as it acts as a service indicator which can be used to determine which Operators are providing the services in a reliable manner. The Complaints Log can also help to identify triggers for route audits.

Route audits are conducted by the Supervisor, the Transportation Officer and the Transportation Clerk. Currently, most route audits occur during Fall and Spring when the road conditions are clear.

Departure/arrival time windows, bus driver behaviour and stops have been currently monitored in a regular route audit. All incidents on buses are investigated and documented by NETST staff. Because of the restricted number of Operators in each area and crossing territorial jurisdictions, a formal ranking approach for the Operators is not practical. Any non-compliance identified by the Consortium staff is dealt with immediately. The result of the route audit is communicated to the Operators in formal written format.

On the Administrative compliance side, school bus Operators are contractually required to provide proof of valid insurance, vehicle ownerships and CVOR abstracts. The information is verified by the Transportation Clerks. There is no monitoring of contractor compliance to the first aid and epipen training requirement.

Value for Money in Contracting

It is understood from discussion with the Consortium that they are waiting for the release of a resource guide on best procurement practices developed through a stakeholder committee before revising their own process. Efforts are made by the Consortium to ensure that contracts best reflect market prices and provide value for money through benchmarking against the Ministry Costing Study and against other Consortium.

6.4.2 Recommendations

Monitoring

Operators should be required to demonstrate that they have provided their Drivers with appropriate safety, first aid and mandatory epipen training prior to start of the school year. It is recommended that the Consortium Transportation Clerks include driver safety training certificate in their routine route audit check list. It is also important that results of the route audits be shared, where appropriate, with the operators to ensure that there is feedback and opportunity for improvement.

6.5 Results of E&E Review

Contracting practices have been assessed as **Moderate**. Currently, contracts for transportation services are not awarded using a competitive procurement process. By not engaging in a competitive procurement process, the Consortium will not know whether it is paying the best rates for services provided. If a competitive process is used to procure services, the Consortium can clearly state all service requirements in its procurement document. In addition, the Consortium can be sure that it will obtain the best value for its money as Operators will compete to provide the required service levels at prices that ensure an appropriate return on investment. A competitive procurement process should be used with certain safeguards in place to protect the standards of service and be sensitive to local market conditions. In areas where this process may not be appropriate due to limited service availability, the Consortium can ensure that transparent and accountable processes are supported, by using the competitively procured contracts as a “proxy” for negotiating service levels and costs.

Furthermore, some buses being used are older than 12 years, and the current fee structure provides incentive for Operators to purchase older school buses. NETST should draft a fleet age policy and ensure that the age of vehicles is strictly monitored through administrative and route audit. In order to become more effective and efficient, the Consortium should update the Operator Compensation Schedule and adopt formal contracting process for summer school bus and taxi services.

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 2. 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:

Overall Rating	Effect on deficit Boards[9]	Effect on surplus boards[9]
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 30%	Same as above
Low	Reduce the gap in the range of 0% to 30%	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:

District School Board Ontario North East

Item	**Values**
2006-07 Transportation Surplus (Deficit)	44,150
% of Surplus (Deficit) attributed to the Consortium	100.00%
Revised Amount to be assessed under the Consortium	44,150
E&E Rating	Moderate
Funding Adjustment based on Ministry's Funding Adjustment Formula	60%

[9] Based on Ministry Data – see Appendix 2.

Item	Values
2007-08 Total Funding adjustment	$0

Northeastern Catholic District School Board

Item	Values
2006-07 Transportation Surplus (Deficit)	(4,468)
% of Surplus (Deficit) attributed to the Consortium	100.00%
Revised Amount to be assessed under the Consortium	(4,468)
E&E Rating	Moderate
2007-08 Funding Adjustment based on Ministry's Funding Adjustment Formula	60%
Total Funding adjustment	$2,681

Conseil scolaire public du Nord-Est de l'Ontario

Item	Values
2006-07 Transportation Surplus (Deficit)	(150,978)
% of Surplus (Deficit) attributed to the Consortium	42.59%
Revised Amount to be assessed under the Consortium	(64,302)
E&E Rating	Moderate
Funding Adjustment based on Ministry's Funding Adjustment Formula	60%
2007-08 Total Funding adjustment	$38,583

8 Appendix 1: Glossary of Terms

Terms	Definitions
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.
CSDNE	Conseil Scolaire Public du Nord-Est de l'Ontario
Deloitte	Deloitte & Touche LLP (Canada)
Driver	Refers to bus Drivers, see also Operators
DSBONE	District School Board Ontario North East
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 North East Tri-Board Student Transportation " 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
Governance Committee	Joint Transportation Governance Committee
HR	Human Resources

Terms	Definitions
IT	Information Technology
JK/SK	Junior Kindergarten/Senior Kindergarten
KPI	Key Performance Indicators
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
NCDSB	Northeastern Catholic District School Board
NETST	North East Tri-Board Student Transportation
Operations Committee	Joint Transportation Operations Committee
Operators	Refers to companies that operate school buses and the individuals who run those companies. In some instances, an Operator may also be a Driver.
Overall Rating	As Defined in Section 1.3.4 of the Evaluation Framework
Partner Boards or Boards	The school Boards that have participated as full partners in the Consortium
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)
Senior Financial Officer	As shown in Figure 4
Separate Legal Entity	Incorporation
Supervisor	As shown in Figure 5
Transportation Clerk	As shown in Figure 5

Terms	Definitions
Transportation Officer	As shown in Figure 5

9 Appendix 2: Financial Review – by School Board

DSB Ontario North East

Item	2004/2005	2005/2006	2006/2007	2007/2008
Allocation[10]	6,624,990	6,864,172	6,860,708	6,997,946
Expenditure[11]	6,622,684	6,864,172	6,816,558	6,997,946
Transportation Surplus (Deficit)	2,306	-	44,150	-

Northeastern Catholic DSB

Item	2004/2005	2005/2006	2006/2007	2007/2008
Allocation[10]	2,703,733	2,770,903	2,661,999	2,723,225
Expenditure[11]	2,703,733	2,770,903	2,666,467	2,723,225
Transportation Surplus (Deficit)	-	-	(4,468)	-

Conseil scolaire public du Nord-Est de l'Ontario

Item	2004/2005	2005/2006	2006/2007	2007/2008
Allocation[10]	872,780	1,168,160	1,109,519	1,237,113
Expenditure[11]	990,303	1,342,354	1,260,497	1,324,362
Transportation Surplus (Deficit)	(117,523)	(174,194)	(150,978)	(87,249)
Total Expenditures paid to NETST	504,559	558,419	536,846	593,182
As % of total Expenditures of Board	50.95%	41.60%	42.59%	44.79%

[10] Allocations based on Ministry data – includes all grant allocations for transportation (Section 9 00008C, Section 13 00006C, Section 13 00012C)
[11] Expenditure based on Ministry data – taken from Data Form D: 730C (Adjusted expenditures for compliance) - 212C (Other revenues) + 798C (Capital expenditures funded from operating)

10 Appendix 3: Document List

1. Financial Data 0405 to 0708
2. CM 1a Consortium Agreement
3. CM 1c Dispute Resolution
4. CM 2a Governance Agreement
5. CM 2b Organizational Chart
6. CM2c Governance Committee Meeting Minutes
7. CM 3 Governance Chart
8. CM 4 Job Descriptions
9. CM 7 Operation Plan
10. CM 9 Financial Statement
11. CM 10a Financial Management Policy
12. CM 10b Chart of Account
13. CM 11 Budget Process
14. C 3a Sample Contract
15. C 3c Operator Compensation Payment Schedule
16. C 4 Audit Plan
17. PP1 Tri-Board Policy
18. PP2 Yearly Planning Schedule
19. PP4 Sample Reports
20. PP5 Special Needs Procedures
21. PP7 Inclement Weather Procedures
22. PP7 Anaphylaxis Procedures

23. PP7 Car and Booster Seat Procedures
24. PP7 Emergency Procedures
25. PP7 JK/KS Procedures
26. PP7 Loading and Unloading Procedures
27. PP7 Lost Student Procedures
28. PP7 Parent/Student Information Pamphlet
29. PP7 School Bus Behaviour Procedures
30. PP7 Service Delivery Procedures
31. PP7 Video Camera Procedures
32. RTE2 Changes in Student Data Procedures
33. RTE3 Routing Software Maintenance Agreement
34. RTE4 Routing Software Manual
35. RTE4 Report Samples
36. RTE4 Code lists

11 Appendix 4: Common Practices

Home to School Distance

Activitiy	JK/SK	Gr. 1 - 3	Gr. 4 - 7	Gr. 8	GR. 9 - 12
Common Practice	0.8	1.2	1.6	1.6	3.2
Policy - DSBONE	All bused	0.8 km	1.6	1.6	2.6
Policy - NCDSB	All bused	0.8 km	1.6	1.6	2.6
Policy - CSDNE	All bused	0.8 km	1.6	1.6	2.6
Practice	All bused	0.8 km	1.6	1.6	2.6

Home to Bus Stop Distance

Activitiy	JK/SK	Gr. 1 - 3	Gr. 4 - 7	Gr. 8	GR. 9 - 12
Common Practice	0.5	0.8	0.8	0.8	0.8
Policy - DSBONE	.3 km or less	0.5	0.5	0.5	1
Policy - NCDSB	.3 km or less	0.5	0.5	0.5	1
Policy - CSDNE	.3 km or less	0.5	0.5	0.5	1
Practice	.3 km or less	0.5	0.5	0.5	1

Arrival Window

Activitiy	JK/SK	Gr. 1 - 3	Gr. 4 - 7	Gr. 8	GR. 9 - 12
Common Practice	18	18	18	18	25
Policy - DSBONE	-	-	-	-	-
Policy - NCDSB	-	-	-	-	-
Policy - CSDNE	-	-	-	-	-
Practice Note 1	-	-	-	-	-

Departure Window

Activitiy	JK/SK	Gr. 1 - 3	Gr. 4 - 7	Gr. 8	GR. 9 - 12
Common Practice	16	16	16	16	18

Activitiy	JK/SK	Gr. 1 - 3	Gr. 4 - 7	Gr. 8	GR. 9 - 12
Policy - DSBONE	-	-	-	-	-
Policy - NCDSB	-	-	-	-	-
Policy - CSDNE	-	-	-	-	-
Practice Note 1	-	-	-	-	-

Earliest Pick Up Time

Activitiy	JK/SK	Gr. 1 - 3	Gr. 4 - 7	Gr. 8	GR. 9 - 12
Common Practice	6:30	6:30	6:30	6:30	6:00
Policy - DSBONE	-	-	-	-	-
Policy - NCDSB	-	-	-	-	-
Policy - CSDNE	-	-	-	-	-
Practice Note 1	-	-	-	-	-

Latest Drop Off Time

Activitiy	JK/SK	Gr. 1 - 3	Gr. 4 - 7	Gr. 8	GR. 9 - 12
Common Practice	5:30	5:30	5:30	5:30	6:00
Policy - DSBONE	-	-	-	-	-
Policy - NCDSB	-	-	-	-	-
Policy - CSDNE	-	-	-	-	-
Practice Note 1	-	-	-	-	-

Maximum Ride Time

Activitiy	JK/SK	Gr. 1 - 3	Gr. 4 - 7	Gr. 8	GR. 9 - 12
Common Practice	75	75	75	75	90
Policy - DSBONE	60	60	60	60	60
Policy - NCDSB	60	60	60	60	60
Policy - CSDNE	60	60	60	60	60

Activitiy	JK/SK	Gr. 1 - 3	Gr. 4 - 7	Gr. 8	GR. 9 - 12
Practice Note 2	60	60	60	60	60

Seated Students Per Vehicle

Activitiy	JK/SK	Gr. 1 - 3	Gr. 4 - 6	Gr. 7 - 12	GR. JK - 12
Common Practice	69	69	69	52	-
Policy - DSBONE	69	69	69	46	-
Policy - NCDSB	69	69	69	46	-
Policy - CSDNE	69	69	69	46	-
Practice	69	69	69	46	-

Note 1: Procedures requires pick up and drop off times and arrival and departure windows to meet supervision schedules. A maximum time has not been determined.

Note 2: 60 minutes maximum where practical. Approximately nine (9) percent of all ride times are over 60 minutes. Note 3: Policies are fully harmonized.

www.deloitte.ca

Deloitte, one of Canada's leading professional services firms, provides audit, tax, consulting, and financial advisory services through more than 7,600 people in 56 offices. Deloitte operates in Québec as Samson Bélair/Deloitte & Touche s.e.n.c.r.l. The firm is dedicated to helping its clients and its people excel. Deloitte is the Canadian member firm of Deloitte Touche Tohmatsu.