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Policy



Paper

Education on Wheels

*Seizing Cost and Energy Efficiency
Opportunities in Student Transportation*

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January 2015

The Atlantic Institute for Market Studies (AIMS)

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AIMS was incorporated as a non-profit corporations under Part II of the *Canada Corporations Act* and was granted charitable registration by Revenue Canada as of 3 October 1994. It received US charitable recognition under 501(c)(3), effective the same date.

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Dr. Bennett is well versed on student transportation matters. As an elected Ontario Public School Trustee (1988-97), he chaired the Transportation Committee at the York Region Board of Education, Ontario's fourth largest school board. From 1993 to 1997, he initiated and co-chaired the York Region Joint Board Consortium on Transportation Services, one of the first of its kind in the country. That initiative won him two recognition awards, including one from the Ontario School Bus Operators Association. Since then, Paul has always taken an active interest in student transportation issues. His two most recent books, *Vanishing Schools, Threatened Communities* (2011) and *The Last Stand* (2013) both focused on rural decline, educational consolidation, and school closures—and explored the impact of long school bus rides on today's students.

Derek M. Gillis is an independent Halifax research consultant specializing in sustainable transportation research, program development, coordination, youth and adult education and community engagement. Derek coordinated GPI Atlantic's Youth Ride! Research and Action Project, engaging 37 youth to investigate and share their own perspectives about access to transportation in non-urban communities and how it relates to well-being and connection to community.

Mr. Gillis is dedicated to addressing public/community transit issues as an active board member of Community Transit-Nova Scotia, currently advocating and advancing more viable community transportation solutions. He developed vehicle fleet and fuel management programs, efficient driving education, and drive less initiatives with The Clean Foundation (formerly known as Clean Nova Scotia) between 2009 and 2013. More recently, he has been working for CarShareHFX.

Overview: Seizing the Opportunities in Student Transportation

Public schools in most of Maritime Canada simply do not operate anymore without a ready fleet of yellow buses. More and more of our school tax dollars are going to provide services outside the classroom in the form of “Education on Wheels,” otherwise known as daily student transportation.

Annual busing costs have risen at a time of significantly declining student enrolments. From 1987 to 2014, judging from the published figures, student transportation costs in New Brunswick have doubled from \$31.3 million (CEA, 1987) to \$58.7 million (School Bus Fleet, 2014). More is being spent to transport a shrinking student population that plummeted from 120,600 to 102,579 (14.9%) in the recent ten year period from 2002-3 to 2011-12 (NB Data Points 2013). In Nova Scotia, over the past five years, student transportation costs (actual operating costs for full-time students) have risen from \$64.2 million to \$71.2 million, an increase of 10.9 percent at a time when overall P-12 enrolment shrunk by 8.3 percent from 131,159 to 120,340 students.

While mounting student transportation costs is fast becoming a major challenge for provincial education authorities and school boards, the critical issues remain shrouded in mystery and largely hidden from the public. School transportation policy is essentially driven by provincial grants and the official 3.6 km/2.4 km/1.6 km ‘Walk Limit Standard’ entrenched in the long-standing regulations.

School closures and consolidation are routinely implemented as cost reduction measures without any real disclosure of the impact on school board or provincial school busing costs. Small school advocates and community activists who ask questions about the added costs to taxpayers are assured that it is either of no concern or that more students can simply be added to existing bus routes. Given the escalating costs identified in this report, those rationalizations no longer suffice. With some 68 percent of all Nova Scotia students riding the buses and some regional boards busing over 90 percent of their pupils, it is time to blow the whistle.

School board initiatives aimed at containing costs by fiddling with local busing regulations and enforcing walking distances have little effect because daily home-to-school student transportation, driven largely by school closures and fuel costs, is taking a bigger and bigger bite out of provincial education spending.

Student transportation is a hidden public policy issue that now requires attention by both provincial auditors and utility review boards. In response to our investigation into student transportation, the Nova Scotia Department of Education and Early Childhood Development went to extraordinary lengths over two months to collect the province-wide data and summarize it for use in this report. Assembling reliable data was a formidable challenge in the absence of any requirement for full public disclosure of the scale and cost of operations.

Fortunately, critical policy research in Ontario has identified the most potentially productive points of investigation: the impact of provincial subsidies, preferential purchasing arrangements, and oligopolistic market tendencies, sharing of services, and a whole range of further cost and energy efficiencies. The establishment of joint board consortia in Ontario, mandated province-

wide in 2006, now provides us with concrete examples of its short and longer-term cost and management effectiveness benefits.

Better managing the bus fleet and achieving cost reductions are only one side of the public policy issue. Nova Scotia's Chief Medical Officer of Health, Dr. Robert Strang, has urged policy-makers to look at the impact of school consolidation and busing on the health of children and youth. Community advocacy groups such as Community Transit-Nova Scotia and the Ecology Action Centre share this concern and support public policy initiatives promoting active, healthy transportation alternatives. A comprehensive audit of student transportation might open the door to community planning more focused on establishing walkable schools in healthier local communities.

Student transportation needs to be factored into public policy discussion about containing education costs and creating liveable, walkable communities. School consolidation, provincial subsidization of student busing, the disappearance of smaller community schools, the role of joint board consortia, and other proven cost and energy efficiencies are all critical issues awaiting to be addressed in Maritime provincial school systems.

School budgets are under more pressure than ever before and the focus should be on ensuring that scarce resources are spent in the classroom to the greatest possible extent. Now is the time to seize the cost and energy efficiency opportunities in the previously neglected domain of student transportation services.

Student Transportation: Identifying the Hidden Policy Issues

Transporting students to school is consuming more and more of the costs of public education in provincial school systems (Drummond 2012, 220-4; Monteiro and Atkinson 2012). In Nova Scotia over the past five years, student transportation costs (actual operating costs for full time students) have risen from \$64.2 million to \$71.2 million, an increase of 10.9 percent (Nova Scotia 2014b), at a time when overall enrolment in primary and secondary education continues to decline. Although transportation costs are fast becoming a major challenge for provincial education authorities and school boards, the critical issues remain shrouded in mystery and largely hidden from the public. School transportation policy is essentially driven by provincial grants and official walk limit standards entrenched in long-standing regulations. School board initiatives aimed at containing costs by fiddling with local busing regulations and enforcing walking distances have little effect when "Education on Wheels" is taking a bigger and bigger bite out of provincial education spending, as Table 1 shows for Nova Scotia (Nova Scotia 2014b).

School closures and consolidation are routinely implemented as cost-reduction measures without any real disclosure of the impact on school board or provincial school busing costs. Small-school advocates and community activists who ask questions about the added costs to taxpayers are assured either that it is of no concern or that more students can simply be added to existing bus routes (Bennett 2013, 29-32). Behind the scenes, school boards claim that costs are "at the breaking point," and lobby fiercely for increased grant support to maintain or augment their bus fleets. As a 2008 Alberta School Boards Association report quipped, it is "the stone in

everybody's shoe" (ASBA 2008, 3). Yet, in the case of Nova Scotia, closing schools and putting more students on buses has only compounded the problem. Five years ago three in five students (62.8 percent) were bused to school each day; by the 2013-14 school year, two-thirds (68.1 percent) of the province's students rode the buses (see Table 2) and travelled longer average daily distances (Nova Scotia 2014b).

Table 1: Student Transportation Expenditures, by School Board, NS, 2009-14

Source: Nova Scotia 2014b

Student Transportation Expenditures					
	2013-2014	2012-2013	2011-2012	2010-2011	2009-2010
	Actual per F/S				
Annapolis	9,009,089	9,195,532	9,372,417	8,663,909	8,600,769
Cape Breton	6,698,234	6,919,774	7,287,239	6,896,728	7,240,446
Chignecto	12,630,881	12,110,055	12,032,521	12,264,951	11,432,183
CSAP	6,633,266	6,474,827	6,239,478	6,015,747	5,449,673
Halifax	17,977,039	17,501,098	16,588,051	15,815,391	14,110,959
South Shore	5,746,905	5,703,634	5,780,174	6,077,647	5,524,123
Strait	7,448,255	7,355,672	7,373,078	7,002,284	7,289,491
Tri County	5,097,544	5,064,626	5,217,892	5,128,587	4,591,907
Provincial	71,241,213	70,325,218	69,890,850	67,865,244	64,239,551

Today, student transportation is a major public expenditure, particularly in Atlantic Canada, where rural school districts still predominate and a high proportion of students are transported to school each day. Yet school bus expenditures, funded mostly through provincial grants, have rarely, if ever, been audited and remain largely unexplored by researchers. A 1987 Canadian Education Association (CEA) study provided an overview of the national picture, covering 158 school boards, and documented wide variations in the operation, regulation, and funding of bus fleets from one province to another. In the case of the four Atlantic provinces, the CEA reported that \$99.3 million was spent during 1986-87 on pupil transportation, representing from 5.40 percent to 7.03 percent of total provincial education budgets (CEA 1987). In comparative school board data, the study identified expanding student bus transportation as closely connected with the process of school consolidation in rural and remote school districts.

Comparative analysis of Canadian student transportation is a challenge in the absence of a federal presence in education and the limitations of the published data. A North American trade magazine, *School Bus Fleet*, provides annual summaries of Canadian pupil transportation data by province, so there is some basis for comparison. Its reports from 2007 to 2014 include New Brunswick and Nova Scotia, and report on the number of school buses, number of students transported, total kilometres of service, and, on a limited basis, provincial funding levels. In New Brunswick, from 1987 to 2014, student enrolment significantly declined but annual busing costs almost doubled from \$31.3 million (CEA, 1987) to \$58.7 million (School Bus Fleet, 2014). In

June 2013, the magazine reported that Nova Scotia had a total school bus fleet of 1,376, 149 (or 10 percent) more than six years earlier. (*School Bus Fleet* 2007–14), even though school enrolment has plummeted. Official Nova Scotia Education Department data covering the province’s eight school boards for the 2009-14 period contradict the *School Bus Fleet*’s information, showing slightly fewer buses (1,073 to 1,100), but report much higher costs per student transported and a growing proportion of all students (5.3 percent more) dependent on daily bus transportation (Nova Scotia 2014b).

Table 2: Student Population & Students Bused, by School Board, NS, School Years 2009-14
Source: Nova Scotia 2014b

<i>School Boards (number of students; percentage based in parenthesis)</i>	2009–10	2010–11	2011–12	2012–13	2013–14
Annapolis	14,882 (85.1)	14,415 (83.0)	14,079 (82.7)	13,585 (87.5)	13,341 (84.8)
Cape Breton-Victoria	16,312 (N/A)	15,307 (44.0)	14,575 (44.7)	13,977 (48.6)	13,673 (49.0)
Chignecto	22,196 (76.3)	21,750 (77.2)	21,295 (77.8)	20,954 (78.7)	20,423 (82.3)
Conseil Scolaire Acadien Provincial (CSAP)	4,227 (95.0)	4,316 (97.0)	4,415 (85.9)	4,556 (86.8)	4,718 (94.2)
Halifax	51,388 (42.8)	50,480 (44.7)	49,552 (46.4)	49,027 (47.5)	48,596 (50.4)
South Shore	7,347 (91.6)	7,307 (90.4)	6,949 (93.1)	6,864 (91.6)	6,681 (92.4)
Strait Region	7,382 (96.2)	7,289 (96.0)	6,988 (95.7)	6,804 (96.2)	6,633 (95.9)
Tri County	7,425 (80.0)	6,938 (83.8)	6,680 (89.1)	6,401 (90.7)	6,275 (90.0)
Totals	131,159 (62.8)	127,802 (63.9)	124,533 (64.7)	122,168 (66.3)	120,340 (68.1)

Student transportation trends in the Maritimes tend to be at odds with the recent pattern across North America. Looking at the entire US kindergarten to grade 12 (K-12) student population, slightly over half (55.3 percent) of the 25.3 million students in 2004 were transported on school buses at public expense (SRSNP 2014; Vincent et al. 2014). A 2009 study of how US elementary

school students get to school demonstrates that, although the proportion of K-12 students bused has remained at about 39 percent over the past forty years, the proportion driven by parents has jumped from 12 percent to 45 percent. Most significantly, the proportion of US students walking or bicycling to school has dropped from 48 percent to only 13 percent (NCSRS 2011). Such a pattern is not as evident in Maritime cities such as Halifax, Saint John, Moncton, and Fredericton. In the Halifax Regional School Board, for example, 24,509 of 48,596 students (50.4 percent) were bused during the 2013–14 school year, about 7.6 percent more than five years earlier. For small-town and rural Maritime children, going to school in those distinctive yellow buses still predominates, with most school districts busing between 80 and 95.9 percent of their students to and from school each day from September to June (MacIntyre 2014; Nova Scotia 2014b).

Over the past thirty years, provincial authorities and school boards outside of the Maritime region have become much more attuned to student transportation costs and the potential for cost efficiencies. The sharing of bus services between school boards and with other educational institutions surfaced in the mid-1980s, mainly in Ontario and rural Alberta. “Joint Consortia for Transportation Services” were established in four or five coterminous public and separate Ontario school board districts, including York Region and Sudbury School District. The Ontario School Bus Operators Association, based in Toronto, joined in the collaboration when a number of boards began pushing for cost efficiencies. Such initiatives were accompanied by business plans incorporating computerized route scheduling, the enforcement of walking distances, and the combining of routes, bulk purchasing, double runs, and staggered school times.

In 2002, the Ontario Education Equality Task Force recommended that the province create eight to ten joint transportation “service boards.” In 2006–07, the Ontario Ministry of Education took action, requiring school boards across the province to develop partnerships and combine school board transportation departments into separate, fully integrated transportation organizations. The *Student Transportation Reform* initiative compelled all of the province’s seventy-two boards to embrace the cooperative student transportation model and to combine in common, coterminous geographical areas (Ontario 2014). In the initial phases of coterminous sharing, millions of tax dollars were saved, but the entry of dominant bus industry players such as Laidlaw and Stock and preferred supplier arrangements tended to reduce price competition over time. In June 2011, an Ontario task force report identified the problem of competitive procurement and revealed that school bus costs (for 800,000 students) had reached \$845 million, representing 4 percent of the province’s education budget. Based on such findings, economist Don Drummond included reducing student transportation costs by 25 percent in his February 2012 report recommending province-wide austerity measures (Drummond 2012, R 6-17). That recommendation likely was based on the findings of Ministry of Education Effectiveness & Efficiency Reviews conducted since 2008 that point out further potential cost savings among Ontario’s eighteen consortia operations (Deloitte 2008).

A research study produced for the June 2012 Canadian Transportation Research Forum provides a valuable critical economic market analysis of Canadian school bus transportation. Researchers Joseph Monteiro and Benjamin Atkinson offer an overview of student transportation province by province, and then examine the school bus industry in some detail, providing an authoritative analysis of its structure, services, operations, market conditions, and concentration. They also

examine provincial regulations to determine their effect on oligopolistic competition and entry into the industry. Monteiro and Atkinson identify the need to further examine the effect of the subsidization of pupil transportation, the privatization of school bus services, and costs relative to the primary mission of public education systems. They draw attention to the serious potential for collusion among bus operators and “bid rigging” in the awarding of contracts (Monteiro and Atkinson 2012).

Critical Public Policy Questions: Student transportation is a hidden public policy issue that requires attention by both provincial auditors and utility review boards. In response to our investigation into student transportation, the Nova Scotia Department of Education and Early Childhood Development went to extraordinary lengths over two months to collect province-wide data and summarize it for use in this report (see Tables 1 and 2). That laborious exercise alone amply demonstrates that assembling reliable data is a formidable challenge in the absence of the requirement for full public disclosure. Fortunately, critical policy research in Ontario has identified the most potentially productive points of investigation: the effect of provincial subsidies, preferential purchasing arrangements, oligopolistic market tendencies, the sharing of services, and a whole range of further cost and energy efficiencies. Rising levels of expenditures for student busing at a time of falling enrolment raises red flags, as does the total absence of public disclosure and accountability.

Better management of the bus fleet and achieving cost reductions are, however, only one side of the public policy issue. Nova Scotia’s Chief Medical Officer of health, Dr. Robert Strang, has urged policymakers to look at the effect of school consolidation and busing on the health of children and youth (Strang 2014). Community advocacy groups such as Community Transit-Nova Scotia and the Ecology Action Centre share this concern, and support public policy initiatives promoting active, healthy transportation alternatives. A comprehensive audit of student transportation might open the door to community planning focused more on establishing walkable schools in healthier local communities.

The critical question to be investigated is: Why is student transportation rarely factored into public discussion about containing education costs and creating liveable, walkable communities? Simply asking that question would open up a needed policy debate about school consolidation, provincial subsidization of student busing, the disappearance of walkable schools, the role of joint board consortia, and the potential for both cost and energy efficiencies. That is the overarching objective of this study.

Getting to School: Growth of the Student Transportation System

Most schools in Atlantic Canada simply cannot run without daily school bus transportation. It was not until 1986, however, that school boards became concerned enough about rising cost pressures to cooperate with the CEA in supporting a national survey of the state of K-12 student transportation. During the 1986-87 school year, the CEA managed to survey 158 school boards across Canada to generate previously undocumented information about provincial and school board policy regulations, funding formula, capital replacement rates, ridership levels, and comparative costs (CEA 1987, 7-23). In the case of the four Atlantic provinces, the CEA study reported that a total of \$99.3 million was being spent in 1986–87 on student transportation,

representing approximately 6 percent of total board expenditures. Total operating costs were \$36.6 million (5.7 percent) in Nova Scotia, \$27.3 million (7.03 percent) in New Brunswick, \$23.7 million (5.7 percent) in Newfoundland and Labrador, and \$7.7 million (6.6 percent) in Prince Edward Island (32-3, 37, 40-9). With the data aggregated, policymakers finally had at their disposal a set of benchmarks to chart and assess changes in the pattern and growth of student transportation costs.

School bus transportation policies and practices across Canada in 1986-87 were all over the map from one province to another and even from one school board to another. The CEA survey results nonetheless were valuable because they exposed, for the first time, the crazy-quilt pattern of student transportation funding and great inconsistencies in daily home-to-school busing services. Provincial funding formulas and walking distances varied, but costs were normally shared by the provinces and school boards. Many school boards still owned their own fleets of buses, but growing numbers, mostly in urban areas, were contracting out the service to commercial bus operators. In New Brunswick (and Manitoba), it was noted that the provincial governments paid 100 percent of the cost of school buses (CEA 1987, 5). Much of the focus of student transportation in provinces such as Nova Scotia was on securing capital bus purchase grants and covering debt-servicing costs. Overall, student transportation was revealed to be a grant-driven, rather than student-numbers-determined, education support service. Educational decisions were being made that dictated changes, necessitated more busing, and entailed absorbing more costs. The CEA study reported little or nothing about the challenge of implementing busing regulations or maximum walking distances, or minimizing the constant demand for “special arrangements.” Nor was there much evidence of special education transportation, which, starting in the 1990s, became an important driver of rising costs per student. The study did, however, identify the main differences among the four Atlantic provinces some thirty years ago, which it is useful to review.

In Nova Scotia, a review of student transportation in the mid-1980s resulted in a significant change in funding arrangements, moving from a per student formula, based on registered numbers as of September 30, to a block grant formula based on projected transportation operating expenses (CEA 1987, 34). Starting in 1987, Nova Scotia school boards received operating grants “equal to 100 percent of the year’s projected transportation operating expenses.” Projected costs increased 4.0 percent under the new formula, and the funding included allocations for co-curricular and extracurricular school trips. School boards also received financial assistance to help cover the debt-servicing costs, as at September 30, 1982, of acquiring and paying for buses. The Capital Bus Purchase Grant, or Bus Rate, was set at \$4,150 per unit, or one-tenth of the cost of purchasing a school bus that meets certain standards (D250 standards) of the Canadian Standards Association, ensuring the structural integrity of buses and meeting other standards regulated by the Nova Scotia Board of Commissioners of Public Utilities. The new grant formula also allowed for “spare buses” as “an integral part of the fleet” (CEA 1987, 34).

In New Brunswick, in the mid-1980s, school bus transportation was far more centralized and directly managed by provincial authorities as a result of major changes, beginning in 1984, that transferred authority and decision making to the province. “The Department of Education”, the CEA study reported, now ran all aspects of student transportation, and “all school bus drivers work for the Department.” Starting in the 1984–85 school year, increasing numbers of school

boards were simply given no budget for student transportation. Although the Department of Education managed the student services, the provincial Department of Transportation took over “the total operation of student transportation vehicles” (CEA 1987, 32). The province thus began to wield considerable control over school transportation services. Beginning in September 1987, the Department of Transportation billed each school board directly “a fixed rate per kilometre for the operation, maintenance and repair of its fleet.” In terms of capital costs, the province reported allocating \$4 million and purchasing “approximately 100 buses a year.” In a modest attempt to encourage cost efficiencies, school districts that reduced their yearly mileage were permitted to “keep the money” they saved through such measures (32-3).

In Newfoundland and Labrador and Prince Edward Island, provincial student transportation policies and funding regulations reflected a few other peculiarities. In both provinces, a 1.6 km walking limit was explicitly stated in the regulations and set as the determinant of approved provincial funding. In the 1986-87 school year, some 30 percent of Newfoundland and Labrador’s “student conveyance” was still provided by board-owned and operated buses, and unlike Nova Scotia, the province reimbursed the boards for only 90 percent of approved costs. The CEA noted that school boards in Prince Edward Island bought buses or contracted out the service with “a budget provided by the Department of Education” (CEA 1987, 34, 35-6).

School busing in the mid-1980s was most prevalent in predominantly rural school districts. Of 158 school boards across Canada that participated in the CEA survey, 18 reported busing over 80 percent of their registered students; 10 of these school boards were located in Atlantic Canada, most of them in New Brunswick. The top two school busing leaders were New Brunswick’s District 36, Dalhousie, at 99.5 percent of all students, followed by Nova Scotia’s Conseil Scolaire Acadien Clare-Argyle, Meteghan, at 97.1 percent. A Newfoundland and Labrador district, RCSB Conception Bay, ranked seventh with 89 percent of students bused; Prince Edward Island’s Regional Board in Montague came ninth, at 83.4 percent; and two other Nova Scotia boards, Hants West (DSB) Windsor, and Guysborough DSB, finished sixteenth and seventeenth, respectively, with 80.8 percent and 80.3 percent of their students bused (CEA 1987, 13). In virtually every case, the proportion of students bused in these rural districts is much higher today. For the entire Chignecto-Central Regional School Board in Nova Scotia, encompassing the towns of Amherst, Truro, New Glasgow, and surrounding areas, the current publicly acknowledged figure is 82.3 percent of all students. By the standards of 1986-87, six of Nova Scotia’s eight school boards today would break the 82 percent level, putting them in the top ten in terms of busing among Canadian school boards (Nova Scotia 2014b).

Thirty years ago the sharing of student transportation services to reduce costs was still in its infancy. The CEA report identified nine school board initiatives as either exemplary or promising. Six of the nine were Ontario joint transportation or sharing projects, in places such as Ottawa, London, and Niagara South. Two of the Ontario initiatives, in Nipissing–Pembroke and Kent County, served mostly rural and small-town students. Most of the identified projects were in the pilot stages, a few of them involving modest numbers of students. Only one Maritime education authority was listed as showing any progress in sharing student transportation services. That one jurisdiction was the Regional Board in Bathurst, New Brunswick, where, for pragmatic reasons, French students rode the English board’s public school buses (CEA 1987, 15–16). From these tentative initiatives emerged an Ontario movement that surfaced in the 2005-06 school year

and led to the reorganization of all seventy-two of that province's remaining school boards into just eighteen joint board consortia for student transportation services (Ontario 2014).

Over the period from 1986 to 2007, the Canadian school bus industry grew significantly in number of firms and total revenues, which rose from \$640 million to \$1.602 billion, an increase of 150.4 percent (Monteiro and Atkinson 2012, 3). From 2001 to 2007, while total K-12 enrolment across Canada declined by 4.5 percent, total school bus industry revenue reportedly rose by 9.9 percent (Statistics Canada 2014). School bus services (including chartered buses) generated \$1.529 billion in revenue in 2007, of which only \$38.6 million was accounted for by the Atlantic region. Privately run buses far outnumbered in-house school district buses in the total Canadian fleet. At the time of the acquisition of Laidlaw by the United Kingdom's First Group in February 2007, about 30,000 school buses, or three out of every four vehicles, were owned by private contractors (*School Bus Fleet* 2007).

School bus fleets in the Atlantic provinces in 2007 remained provincially funded and still mostly publicly owned, unlike in Ontario and Quebec. In New Brunswick, the province operated 1,100, or 89.9 percent, of its 1,223-unit bus fleet. Some 92,000, or 84 percent, of New Brunswick's 109,464 student population was bused over 26,000 km of roadways, funded by \$52.5 million in provincial grants. That same year, Nova Scotia's fleet of 1,227 buses was 73.7 percent publicly operated and the balance, some 404 vehicles, was operated by private contractors (Monteiro and Atkinson 2012, 2–3, 4). The entry of Stock Transportation into the Nova Scotia market in 1996 through the Halifax Regional School Board marked a shift to national, rather than local, bus contractors. Today, Stock Transportation (owned since 2002 by global transportation giant National Express Group, PLC, of the United Kingdom) operates more than 3,400 school buses in Ontario and Nova Scotia (Stock Transportation 2014)

Table 3: School Bus Fleet Operations, NS, 2009-14

Source: School Bus Fleet, June, 2009-14

	2009	2010	2011	2012	2013	2014
Number of School Buses	1,227	1,377	1,377	1,377	1,376	992*
<i>Publicly Owned</i>	823	844	844	844	901	346
<i>Privately Operated</i>	404	533	533	533	475	646
Number of Students Transported Daily	90,200	89,000	89,000	89,000	89,000	87,358
Annual Route Distance	19	19	19	19	19	23.4
*The published 2014 data for number of buses is incomplete, likely because of missing data from one of the regional school boards						

As Table 3 shows, since 2010 Nova Scotia's school bus fleet has remained essentially the same size even though total student enrolment has continued to plummet in seven of the eight regional school boards. School closures and consolidation have reduced the total number of public schools from 425 to 398, but the number of students bused has remained almost constant, and the annual route distance has jumped from 19 million km to 23.4 million km. The Chignecto-Central Regional School Board is typical of "Education on Wheels," with 16,800 (82.3 percent) of its 20,423 students in the 2013-14 school year riding the buses each school day. Four of the province's other regional boards bus from 85 to 96 percent of their students to school each day (Nova Scotia 2014b). Closing smaller, mainly rural schools and busing more students each year to larger primary to grade 8 consolidated schools or primary to grade 12 regional education centres only results in more students on buses and longer bus runs, adding to the associated costs of fuel and maintenance.

New Brunswick's student transportation data also demonstrate the constancy of the size of the bus fleet in the face of a continuing decline in enrolment. From 2009 to 2014, the total number of buses rose from 1,156 to 1,237, while the number of students bused dropped from 85,000 to 74,055. Total provincial funding for pupil transportation peaked in 2013 at \$58.7 million, when the numbers bused stood at 79,000, some 6,000 fewer than in 2009. Rising school bus costs since 2006 have been driven, in part, by New Brunswick's firm commitment to "inclusion" or the integration of most disabled students into widely scattered regular classrooms (Bennett 2012). Separate vehicles are used almost exclusively to integrate special needs pupils into regular classrooms in every school in the province. Of the 1,118 buses reported in 2013, only 49 (4.4 percent) were privately owned. In short, New Brunswick school busing continues to consume close to \$58 million a year, while the province is slowly abandoning private contracting in favour of fully funded publicly owned buses (*School Bus Fleet*, June, 2009-14).

Provincial Funding and the Operational Framework

Nova Scotia

In Nova Scotia, student transportation is the responsibility of school boards, and mandated and funded by the Department of Education and Early Childhood Development. School boards are committed to ensuring that transportation is provided in accordance with section 64 of the *Education Act* and the following provincial and regional acts and policies: the *Motor Vehicle Act*; the *Motor Carrier Act*; Department of Transportation and Infrastructure Renewal; Department of Education Special Education Policy; Utility Review Board Regulations; School and Bus Cancellation Policies; Regional Codes of Conduct; and Creating School Populations Policy.

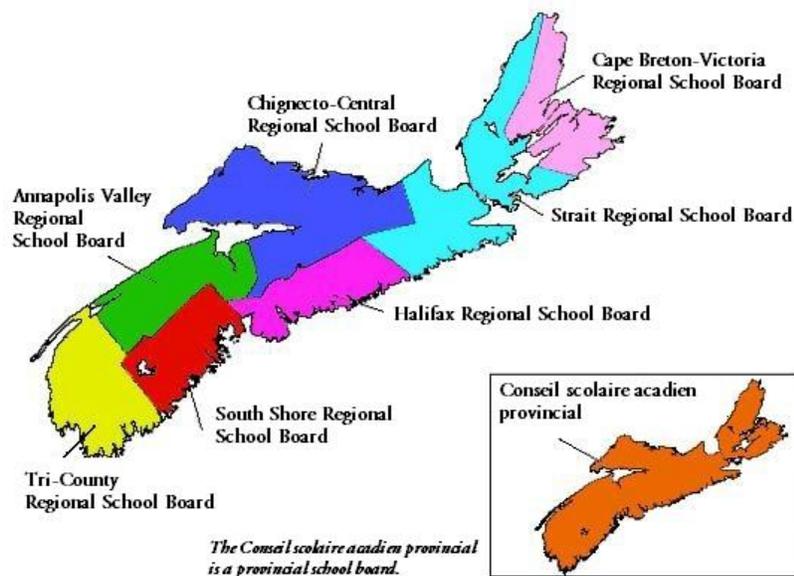
Section 64 of the *Education Act* reads: "General Responsibilities and Powers of School Boards - Duties and powers: 64 (2) (g) subject to the regulations, provide and pay for the conveyance of students to and from school." Section 6 of the Regulations, Transportation of Students, subsection (1) specifies the minimum distance from school:

A school board pursuant to clause 64(2)(g) of the Act shall make provision for the transportation of students either by providing the service itself, or making arrangements with some other person for such service, if:

- (a) one or more students reside more than 3.6 km from the school to which they are to be transported; or
- (b) one or more students, because of special needs, require transportation irrespective of the distance; and
- (c) the school board determines that transportation of the students is necessary.

Although Nova Scotia’s regulations specify 3.6 km as the walk limit standard, several school boards in the province have reduced the distance to 2.4 km for elementary students, and in some jurisdictions to 1.6 km and 0.8 km, where the built environment does not adequately support student safety in terms of active transportation, such as community walkability and safe routes for bicycles and scooters.

Figure 1: Nova Scotia School Boards, 2014



Ironically, the purpose of the *Education Act* is “to provide for a publicly funded school system whose primary mandate is to provide education programs and services for students to enable them to develop their potential and acquire the knowledge, skills and attitudes needed to contribute to a healthy society and a prosperous and sustainable economy” (1995-96, c. 1, s. 2). To that end, section 72 of the Act reads: “The Minister shall make grants to school boards as determined by the regulations with respect to services provided pursuant to Section 64.” Essentially, provincial grants cover 100 percent of the cost to contract and/or deliver student transportation services to and from public schools. Today, most schools in Atlantic Canada simply cannot run without the support of daily student transportation, currently provided by a growing school bus industry — an industry mandated to deliver services described exclusively as “the conveyance of students.” Currently, there are two separate student transportation systems in Nova Scotia, one for francophone students and districts and another for anglophones, despite apparent geographic overlap and/or route duplications. As Figure 1 shows, the Conseil Scolaire Acadien system is province-wide and runs alongside seven coterminous systems.

The Department of Education and Early Childhood Development consists of several operational units. The Corporate Services branch handles the conveyance of students, with support from the Facilities Management and Statistics and Data Management divisions. The Corporate Services branch “provides a range of services to the department, school boards, the Nova Scotia Community College, universities, public libraries, and other related organizations to assist the Department in meeting its mandate. Services include the key areas of financial management and control, facilities and transportation, information technology, statistics and data management, and the distribution of learning resources and related products.” The Facilities Management division “provides for administration of policies and programs related to: school planning, school operations, pupil transportation, and the development and implementation of evaluation policies and procedures to examine and assess effectiveness of school capital programs and school conveyance systems. It acts as a liaison with school boards concerning school capital projects, pupil transportation and school building operations.” And Statistics and Data Management “provides student, teacher, school and board information to support the monitoring, management and improvement of the education system. This information is used to address the needs of stakeholders, to support decisions made within the department, to assist in formulating effective policies and to make decisions with respect to school board funding” (Nova Scotia 2014a).

At the school board level, boards, superintendents, and supporting staff are responsible for the appropriate administration of transportation services and the management of transportation policy, regulations, and procedures. Halifax Regional School Board contracts out its transportation services, and contractors “are responsible for the maintenance and safe operation of all company-owned vehicles, allocation of routes to company drivers and compliance by the drivers in conforming to scheduled routes and times aligned with board policy” (HRSB 2014). All other school boards in Nova Scotia currently own or lease, manage, and maintain their school bus fleets, and contract out supplementary transportation services as needed.

Within each board, a department is assigned to administer and manage the conveyance of students between schools and home. Titled Operational Services, Facilities Management, or Transportation Department, staff includes a director, facilities manager, coordinator of pupil transportation, and pupil transportation foreman at bus depots. The responsible departments maintain and hire service contracts and bus drivers.

New Brunswick

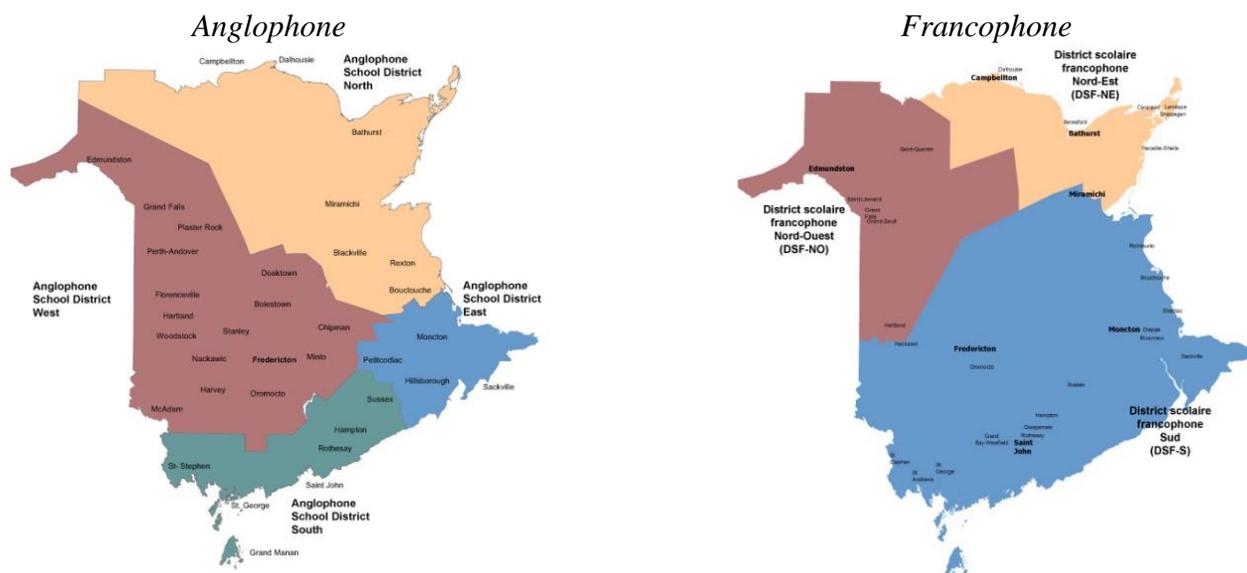
Similar to Nova Scotia, New Brunswick’s *Education Act* (section 53) authorizes conveyance for students enrolled in the public school system. Regulation 2001-51 under the Act is the legislation governing the operation of the pupil transportation system. Meanwhile, the *Motor Vehicle Act* establishes rules for school bus driver classification and standards for vehicle maintenance and traffic rules.

The Department of Education and Early Childhood Development, in cooperation with school districts, is responsible for the administration of a safe, efficient, and dependable pupil transportation system. Departmental objectives include:

- Coordinate the development/revision of administrative policies and the production of support material/documentation in the area of pupil transportation management.
- Provide and define training requirements for all potential and regular bus drivers, as well as promote safety and proper conduct on school buses with the collaboration of local school administrations.
- Maintain a close link with educational services to ensure that school transportation plays its support services role in the education system.
- Maintain data and pertinent information to determine school districts’ budget allocation for school bus operation and analysis. (New Brunswick 2010)

Similar to Nova Scotia, there are two separate student conveyance systems operating throughout the province, one for francophone students and school districts, and another for anglophones, despite apparent geographic overlap and/or potential route duplications (see Figure 2).

Figure 2: Public School Districts, New Brunswick, 2012–14



Prince Edward Island

School transportation in Prince Edward Island, while funded by the province, is run by the school districts. Until 2012, Prince Edward Island was neatly divided into three school boards: Eastern District (English), Western District (English), and the French Language Board. In September 2012, the Eastern and Western districts were merged into one province-wide English Language School Board. The new unified school board enrolls some 20,000 students and employs over 2,300 teachers and support staff. “Bringing the English school boards together,” PEI education minister Alan McIssac announced on June 1, 2012, “will provide a more focused and aligned approach for service delivery, reduce duplication, improve efficiencies and role clarity” (Prince Edward Island 2012). Although the two English boards merged services, the separate French Language Board continues to operate a parallel school bus service.

Current Funding and Cost Management Concerns

The need to curtail student transportation costs has surfaced periodically as a public policy issue in the Atlantic provinces. Whenever the issue is raised, provincial ministers of education are quick to point to the cooperative approach taken to cost reduction through the bulk purchasing of new school buses. In September 2003, Nova Scotia education minister Jamie Muir was proud to announce the purchase of sixty-four new school buses for the 2004–05 school year under a bulk purchase plan involving the four Atlantic provinces. The total purchase price of \$4.5 million included four buses for the physically handicapped and was intended to replace older vehicles under a policy that recommends buses be replaced every twelve and a half years. The new buses were allocated to six different school boards outside Halifax Regional Municipality. The Education Department claimed that bulk purchasing was very cost effective, shaving \$10,000 off the cost of each bus and saving Nova Scotia taxpayers about \$640,000 (Nova Scotia 2003).

Cooperative purchasing of school buses is only one of many policy measures used elsewhere to achieve cost efficiencies. Where provincial governments adopt austerity agendas, seek to reduce administration, and focus more spending on the classroom, school boards are more inclined to consider and embark upon more innovative approaches, such as privatizing school bus service and sharing services among school boards. In Ontario and Quebec, school boards have opted increasingly to contract out student transportation services. Since the late 1980s, leading Ontario school boards such as those in Ottawa and York Region have, on their own, established regional bus transportation authorities, merging the services of their public, separate, and French boards. In January 1994, the two fast-growing York Region boards formed a Joint Board Consortium and merged their school busing services. Under a new organization, Student Transportation Services York Region, they adopted the motto “Better Together,” established a single headquarters, merged dozens of bus routes, and saved taxpayers some \$1 million a year in the initial three-year implementation period (York Region Board of Education 1994, 6).

The impact of public subsidization and management of pupil transportation on escalating expenditures has come under close scrutiny. As long ago as 1973, researcher Marvin R. Brams identified state or provincial grant subsidy programs based upon distance as favouring rural over urban school systems (Brams 1973). US school busing expert Geoffrey Segal, testifying at a 2004 South Carolina transportation hearing, demonstrated that student transportation service was best provided at the local, rather than at the state (provincial), level. Unlike more bureaucratic state authorities, local school districts were seen to exhibit more flexibility in the provision of innovative student transportation services. Local school districts, Segal testified, were more likely to generate competitive bids, to embrace contracting out, and to look to privatization to achieve significant cost savings (Segal 2004).

Four of six authoritative research studies from 1979 until 1996 demonstrated that private contractors were more efficient and cost effective than maintaining in-house district operations. In 1993, KPMG Peat Marwick examined thirty school districts in Washington and Oregon that had privatized student transportation services, and found that, in terms of both cost and quality, such a policy was superior. These research findings have given impetus to school boards in Ontario, Quebec, and Alberta to seek to achieve greater efficiency and cost reductions.

A number of studies of school bus management practices have also identified some of the potential pitfalls of the privatization of school bus services. In a 2004 study focusing on Minnesota, Sheryl Lazarus claims that larger private contractors secured control of the most profitable contracts in urban and suburban areas, shunning the less profitable opportunities in rural school districts (Lazarus 2004). More recently, Owen Thompson has examined student busing over a six-year period in Minnesota, and concludes that, after a period of privatization, reverting to in-house student transportation operations could reap savings of from 15 to 20 percent (2011, 334). Contracting out bus services might introduce more competition and, at least initially, reduce average costs per student. On the other hand, Canadian researchers Joseph Monteiro and Benjamin Atkinson have documented the oligopolistic control exercised by large bus contractors such as Laidlaw and the increasing prevalence of “bid rigging” in the awarding of contracts (2012, 11–12).

Table 4: Pupil Transportation by School Districts, New Brunswick, 2009–10

District	Language	District Office	Enrolment	School	Buses
01	F	Dieppe	7,721	15	91
03	F	Edmunston	5,947	20	79
05	F	Campbellton	5,057	21	61
09	F	Tracadie-Sheila	6,402	22	92
11	F	Richibouctou	5,293	20	78
			30,420	98	401
02	E	Moncton	15,823	38	131
06	E	Rothsay	10,172	24	112
08	E	Saint John	11,880	34	104
10	E	St. Stephen	3,912	16	51
14	E	Woodstock	7,748	29	133
15	E	Dalhousie	3,515	14	52
16	E	Miramichi	5,831	21	89
17	E	Oromocto	4,908	18	61
18	E	Fredericton	12,187	34	120
			75,976	228	853
TOTAL			106,396	326	1,254

Although collusion and bid rigging are against the law, three cases of such activity in school bus transportation have arisen since 1978, all confined to Ontario and Quebec. In the most often-cited legal case, four school bus companies — Charterways, Travelways, Lorne Wilson, and Arthur Elen — were convicted and fined for bid rigging in Peel Region on May 25, 1981. Such practices are much more likely to happen in Ontario and Quebec, however, where almost all of the school bus business is contracted out to private companies in a market dominated by First Student and Stock Transportation (Monteiro and Atkinson 2012, 5, 13fn8). Corporate concentration in the private bus industry was greatly advanced on October 1, 2007, when FirstGroup PLC acquired Laidlaw International. The \$3.6 billion deal combined North America’s two largest private school bus operators — Laidlaw Education Services and First

Student Inc. — giving the new owners a total of 60,000 school buses, or 40 percent of the school bus contractor market (*School Bus Fleet* 2007).

Merging English public school and English Catholic separate school bus operations has grown in popularity since the 1980s, driven by shared service initiatives in Ontario, Alberta, and elsewhere. Since 2006, the Ontario Transportation Reform strategy has further extended the practice to incorporate French-language school services. Nevertheless, running parallel English and French student transportation services remains widespread throughout most of Canada's provinces. In the case of New Brunswick, for example, student transportation reflects the dominant policy framework of clearly segregated anglophone and francophone sectors (see Table 4). Although their geographic areas overlap and some sharing is practised, the two systems remain separate, as does their financial reporting.

Critical Issues

School districts looking to shed expenditures and balance budgets are often tempted to look to student transportation services for some of the cost savings. In June 2013, the Loudoun County school board, in Leesburg, Virginia, facing a \$34 million budget reduction, responded by attempting to enforce its existing walking-distance policy, a move that compelled some 4,000 additional students to walk to school. The controversial decision was publicly justified as one of making tough choices. “We are not in the transportation business. We are in the education business,” Leesburg school trustee Bill Fox stated. “And so, if we have to reduce the level of services someplace, it’s going to be in something like transportation, not in classroom services” (Barnes 2013). A year later, in June 2014, the Coquitlam School District in British Columbia, staring at a \$13.4 million budget deficit, took the same action, cutting service to 1,500 students in Coquitlam, Port Coquitlam, and Port Moody, reportedly to save \$600,000 in education tax dollars (Bankay 2014).

The Micropolitics of Student Entitlements

In Atlantic Canada, reining in school busing costs by enforcing walking-distance policies has proved next-to-impossible. A few school boards have either threatened or attempted, mostly without success, to cut busing for strictly budgetary reasons (CBC News New Brunswick 2009). For example, facing a \$10 million budget reduction in fiscal year 2012/13, the Halifax Regional School Board cut a \$125,000 program that provided Metro Transit passes for 225 high schoolers (CTV Atlantic 2012). Fierce parental opposition in elementary schools and determined political advocacy by locally elected school district members usually have succeeded, however, in beating back such school-level cost-reduction initiatives.

Student walking-distance policies are always a bone of contention, since they represent the limit of provincial grant support for students. Provincial school boards, spearheaded by the Alberta School Boards Association, have long claimed that the official walk limits are “unrealistic in today’s society” (ASBA 2008, 14). The vast majority of school boards, in fact, have implemented student walk limits that are shorter than provincial standards. Local boards now differentiate walk limits based on the age of students and safety concerns such as the presence of high traffic arteries or major highways. Since the expansion of special education and the rise in

the numbers of “coded students,” gate and door-to-door services have multiplied, adding to overall costs. The relatively high number of rural students remains as a controlling factor. By focusing almost exclusively on enforcing walking limits, school boards become enmeshed in “micropolitics” with little to show for their attempts at route rescheduling.

Declining Enrolment and Rising Costs

Declining student enrolment is now the most persistent problem facing all of Nova Scotia’s school boards except the francophone Conseil Scolaire Acadien Provincial. The problem is so acute that the *Globe and Mail* produced an infographic in April 2012 to illustrate its dramatic impact on one Nova Scotia school board. Taking the South Shore Regional School Board (SSRSB) as its example, the graph projected that total enrolment would decline from 8,062 students in the 2006–07 school year to 6,112 students in 2016–17, a 24.2 percent loss in student numbers (*Globe and Mail*, April 7, 2012).

What the *Globe and Mail* did not report was the impact of plummeting numbers and school closures on the busing distances and transportation costs incurred by the SSRSB. With each closure and consolidation, bus distance travelled has edged upwards — by September 2013, 92.4 percent, or 6,174 of the school board’s estimated 6,681 students, rode the buses daily to school (Nova Scotia 2014b). Between 2013 and 2014, although enrolment dropped, student transportation costs rose again from 7.36 percent of total expenditures to an estimated 7.96 percent, and from \$870.00 to \$939.45 per student (SSRSB 2013). The pattern is clear: student numbers decline, schools close, more students are bused, and student transportation costs escalate unless concrete steps are taken to find cost or energy efficiencies.

Grant-driven Student Transportation

Provincial governments in the Maritimes essentially drive their student transportation systems. In New Brunswick, the Department of Education and the Department of Transportation provide annual allocations averaging 90 percent of projected costs, employ most of the drivers, and leave local education districts to field complaints and negotiate special arrangements. Since abandoning its per-student funding formula in 1987, Nova Scotia provides school boards operating grants “equal to 100 percent of the year’s projected transportation operating expenses.” School boards also receive financial assistance to help cover the cost of acquiring new vehicles and debt servicing for buses.

Cost-containment measures have only contributed to the aging of provincial bus fleets. Capital grants for student transportation have hovered between \$4 million and \$5 million a year in both Nova Scotia and New Brunswick, necessitating adjustments in capital-replacement ratios. When Nova Scotia education minister Jamie Muir announced the 2003 capital cost allocation of \$4.3 million, it covered only full replacement of bus units after twelve and a half years. Although bus safety standards have improved, Nova Scotia is pushing the limits in terms of replacement, forcing bus operators and boards to absorb higher fuel and repair costs. Today, Nova Scotia school bus operators have come to expect buses to be replaced on what amounts to a thirteen-year cycle.

Duplication of Busing Services

Student transportation remains the preserve of provincial education authorities and local school districts in all four Atlantic provinces. In New Brunswick, the province completely dominates the school bus industry, essentially dictating funding levels and special education subsidies, operating over 90 percent of the bus fleet, and even employing the vast majority of school bus drivers (Monteiro and Atkinson 2012, 4). Moreover, the student bus service is funded, managed, and sustained by the province with little or no contact with or participation by New Brunswick's urban transit services. The school system's divided anglophone and francophone sectors run parallel student transportation systems and respect each other's jurisdictional boundaries. Few politicians or school officials have dared to even ask if the sharing of bus services, on a larger scale, might result in significant savings to provincial taxpayers.

The Nova Scotia student transportation picture is more complicated, but exhibits the same general pattern when it comes to duplication of services. Each of Nova Scotia's eight publicly funded regional school boards receives separate provincial funding allocations, but the individual boards are expected to operate the daily student bus operations. Each board has its own student transportation operation, while Atlantic Canada's largest board, the Halifax Regional School Board, delegates much of the operation to its sole contractor, Stock Transportation, based in Dartmouth. The far-flung Conseil Scolaire Acadien Provincial, based in Meteghan, manages its own student busing, using separate contractors and operating routes on the same highways, roads, and byways as the seven English-language boards. Although school board transportation managers sit on a Pupil Transportation Advisory Committee, the sharing of services remains a low priority, and there is little appetite for cooperative ventures that might upset the existing scope and predictability of local operations (Bennett 2010, 5). Provincial capital grant reductions are simply absorbed, with costs passed on to school board budgets and gradually eating into core funding for classroom services.

Lack of Public Accountability

Provincial auditor generals in Maritime Canada have shown little or no interest in examining or auditing student transportation expenses. Even in Ontario, where economist Don Drummond's 2012 public services review created great controversy, the whole student transportation system attracts far more intense interest. Since the implementation of the 2006 Student Transportation Reform initiative, responsibility has been shifted to the 18 joint service boards and entrusted to Deloitte to conduct periodic, incredibly detailed *Efficiency & Effectiveness Reviews*, assessing the impact of joint board consortia (Deloitte, MoE E&E Review, 2008). Growing public concerns over corporate concentration and procurement were highlighted in Coulter Osborne's 2012 Ontario task force report identifying significant weaknesses in the existing procurement process for school bus services (Osborne, 2012). That report revealed, in dramatic ways, the distortions in the school bus market and the potential for unfair business practices associated with contracting out student bus services.

In the Maritimes, however, school bus capital funding policy and operational expenses continue to fly below the public radar. The New Brunswick government publishes only annual province-wide global budget figures for student transportation services, estimating their total costs. In

Nova Scotia, student transportation expenses remain buried in Department of Finance budget estimates. In the fiscal year 2014/15 budget documents, the only references to student busing provide very limited disclosure. Under “School Capital Amortization” (7.10), the item “Buses” indicates a total forecast expenditure of \$5,140,000; under “Estimates and Supplementary Detail” (7.8), the “Formula Grants to School Boards” totals \$872,315,000, which likely includes all costs for buses (Nova Scotia 2014a). That is as close to public transparency as it gets in Nova Scotia. We contend that the student transportation data in this report (released to us by the Nova Scotia Education Department) should be publicly accessible and updated on an annual basis.

Promising Practices: Toward Sustainability and Energy Efficiency

Most student transportation departments in Canada and the United States today focus primarily on getting students to school on yellow school buses. Aside from the metrification of dashboard instruments and French-language signage on some school buses, Canadian and US school buses are practically identical, produced by the same manufacturers. Looking at student transportation through the “yellow bus” lens, however, tends to obscure its real role: providing students with access to education. The buses are entrusted, after all, with ensuring that students of all ages, urban and rural, travel safely to and from school. In Atlantic Canada, they also provide a way for students who live far away and those with disabilities to get to school. By focusing solely on busing, however, student transportation officials miss a crucial opportunity to support students and communities.

Student transportation is about more than school buses. Students also get to school by foot, bicycle, car, and public transportation. Thus, decisions about how students travel to school affect their health and safety, as well as traffic congestion, air pollution, and the health and safety of the community at large (SRSNP 2014, 1). Achieving cost efficiencies through improved operational effectiveness is only one half of the equation. The North American Safe Routes to School movement, embraced by the Halifax-based Ecology Action Centre, is opening our eyes to a new vision of what is termed a “multi-modal student transportation system” (Ecology Action Centre 2011). Taking a more holistic approach, it should be possible to transform existing operations into a support system that not only transports students safely, but is also good for student health, academic engagement, community well-being, and environmental sustainability.

Active and Safe Routes to School

School buses, like walking and bicycling, are only one piece of the school transportation puzzle. Although titles such as school transportation director seem to suggest a position that oversees all transportation-related issues at a school or within a jurisdiction, in practice these positions tend to focus heavily, if not solely, on bus-related transportation (SRSNP 2014, 4).

The mandates and role descriptions enshrined in school district policies give a clear indication of their current focus and priorities. The initial clause (1.1) of the Student Transportation Policy of Halifax Regional School Board reads: “the...Board will ensure that transportation service is provided in a safe manner to eligible students,” where “eligible students” means bus students, even though the pertinent section of the *Education Act* states “to provide for a publicly funded school system whose primary mandate is to provide education programs and services for

students to enable them to develop their potential and acquire the knowledge, skills and attitudes needed to contribute to a healthy society and a prosperous and sustainable economy” (HRSB 2014).

Perhaps the time has come to expand the mandate of school transportation policies to better serve the actual needs of students and their families. Focusing more on preserving and protecting walkable school communities would be a great place to start (Bennett 2013, 30–2). With such a policy in place, school guidelines and school curriculum would be helpful in exposing students to the full range of viable transportation options (Ecology Action Centre 2011). Making healthy choices more feasible and viable would render provincial wellness initiatives such as Nova Scotia’s Thrive! much more effective. Students and their families then would begin to see the advantages of making choices that enhance a healthy society while promoting a prosperous and sustainable economy.

Safe Routes Nova Scotia, a series of child/youth active transportation programs led by the Ecology Action Centre (EAC), demonstrates the potential of such initiatives. Working with school-based groups such as school administrations, parent-teacher associations, school advisory councils, student groups, and school staff, as well as with youth and community organizations and stakeholders from education, health, safety, recreation, trails, environment, law enforcement, local government, transportation and planning sectors, the EAC takes a comprehensive approach to increasing the adoption of active transportation habits by children and youth, making it easier and safer for them to choose for themselves. The Safe Routes to School project neatly summarizes the broad vision: “Active transportation means any non-motorized mode such as walking, cycling, in-line skating, skateboarding, scootering, wheelchairs, cross-country skiing, canoeing, etc. Our vision is a Nova Scotia where walking, cycling or using other forms of active transportation is a popular and safe choice made by children, youth and their families for the trip to and from school and other places kids go” (Ecology Action Centre 2014).

The EAC’s child/youth active transportation programs include School Travel Planning, Making Tracks, the Walking School Bus, and more. Its work is part of a larger movement known as Active and Safe Routes to School. The EAC is part of the Canadian Active & Safe Routes to School Partnership, a national group working to increase use of active, sustainable, and safe modes of transportation among school-aged children who travel to and from school. The aim is to foster community cohesion and produce safer, calmer streets and neighbourhoods for active transportation; to reduce greenhouse gas emissions and air pollution from motor vehicles; to increase physical activity; and to improve traffic safety (Ecology Action Centre 2014).

In the long run, student transportation departments could expand their mission by supporting Safe Routes to School, walking and bicycling, and community well-being. In light of major funding cuts to education and concerns regarding childhood obesity, student transportation departments and Safe Routes to School proponents need to work together to help schools save money, decrease traffic, increase community safety, and improve the health of children. With prioritization of centrally located schools and those near residential areas where students are concentrated, ease of walking and bicycling and low transportation costs would be built into the system from the start (SRSNP 2014).

Schools in Nova Scotia are showing more active interest in child and youth active transportation. Since 2001, participation in Ecology Action Centre's Walk to School Week/Month has grown among the province's 400 public and 25 private and independent schools. Starting with nine schools in 2001, the program expanded to reach ninety-eight schools in 2010. Over 300 schools and groups are reported to have participated in at least one aspect of EAC's child and youth programming between 2001 and 2010 (Ecology Action Centre 2014). Currently, child and youth active transportation programming in Nova Scotia is coordinated by the EAC in partnership with the Department of Health and Wellness as part of the Active Kids Healthy Kids Initiative. Safe Routes Nova Scotia supporters in the 2014–15 school year include the Department of Transportation and Infrastructure Renewal, the Department of Health and Wellness, the Department of Energy, Mountain Equipment Co-op, and the Public Health Agency of Canada.

School Bus Energy Efficiency Initiatives

Nova Scotia school boards understand that they have a duty to the public to operate student transportation systems in a safe, reliable, and efficient manner. A number have introduced management practices initially intended to cut costs and improve service. For example, the Halifax Regional School Board contracts with Stock Transportation, a highly professional, nationally known private school bus operator, and with Halifax Transit in urban communities, to deliver student transportation services. Student bus pass programs remain limited, however, and can be casualties at budget time, as noted above, when the HRSB cut passes for 225 high school students (CTV News Atlantic 2012).

At the Cape Breton-Victoria Regional School Board (CB-VRSB), the Pupil Transportation Department manages the hiring, training, and support of bus drivers, bus scheduling, contact conveyance, extracurricular trips, and fleet maintenance. Between 2011 and 2013, CB-VRSB equipped its entire fleet of school buses with GPS tracking systems to monitor idle time, driver performance, and effective route planning. The board-owned fleet also upgraded to sophisticated route-planning software to reduce vehicle kilometres travelled. Savings of over \$40,000 were achieved within the first year of the project's implementation (Clean Nova Scotia 2012).

Promising practices worthy of emulation elsewhere were clearly identified in Alberta in a 2007 comprehensive provincial school board transportation survey. The study, conducted by the Alberta School Boards Association, produced this extensive list of local cost and energy efficiency initiatives that were underway or being discussed seven years ago in that province:

- regional transportation systems that eliminate duplication of services and improve the effectiveness and efficiency of buses used;
- staggered school times to reduce the number of buses required and improve overall ride times;
- use of large and small buses as situations dictate, as well as parent-provided transportation on a limited necessary basis;
- ordering of fuel-efficient engines and engine brakes to save on fuel and reduce brake wear and maintenance costs;
- transfer stops placed strategically to minimize the number of buses travelling on the same roads;

- hiring drivers who live on the route;
- mirrored runs to reduce ride times in urban areas so routes do not visit all schools;
- elimination of double busing from feeder schools so high school students and lower grades students share bus rides;
- jointly tendered service with the public board, francophone board, and the municipality, resulting in no duplication of services and reasonable costs; and
- involvement of the bus drivers in some decisions about routes

Necessity has been the mother of innovation in Alberta, where financial restraint measures have resulted in initiatives designed to maximize the efficiency of operations. Nonetheless, a large number of school boards have experienced increasing difficulty making ends meet (ASBA 2008).

School Bus Use for Public Transportation

Traditionally, student transportation authorities have preferred to have separate transportation systems for students and the general public. In many communities, however, having separate systems is duplicative and wasteful. Public transit is often a safe, affordable, and convenient supplement to traditional school buses, especially for middle and high school students (SRSNP 2014). In some countries, students are transported successfully to and from school without the need of an exclusive school bus system, and where student conveyance is required, public transit and private services adapt and expand.

In 2011, the rural Region of Queens Municipality, Nova Scotia, commissioned a study to explore public transit opportunities. Naturally, existing school bus fleets and resources were major community assets under consideration, and it was concluded that available school buses would be among the most cost-effective, immediate resources available to support the design and launch of a (limited) community transit service for the region (Habib 2011). Despite the feasibility study's recommendations, however, the community decided not to pursue the sharing of school buses to adapt and advance a transit service among the general public.

Recently, the Town and County of Antigonish have taken up the cause. Working together, the two municipalities launched their own Antigonish Community Transit service on September 15, 2014, and also submitted a resolution to the Union of Nova Scotia Municipalities (UNSM) proposing that school buses be made available for the use of public transportation services. The Antigonish Municipal resolution was discussed and accepted at the annual UNSM Fall conference in November 2014 (Community Transit-Nova Scotia 2014).

Community Wheels, a public/community transit service operating in and around Chester, Nova Scotia, is doing its part to fill the gap of affordable, accessible transportation during the critical after-school period, when most traditional yellow school buses have already left the school parking lot, leaving behind students who wish to participate in extracurricular activities. Its wheelchair-accessible minibus allows a number of students to be transported at once, instead of several smaller vehicles serving the same objective.

Nova Scotia's Chief Medical Officer, Dr. Robert Strang, has emerged as a champion of active transportation that promotes the health and well-being of children and youth. Speaking in June 2014 at the Annual General Meeting of Community Transit-Nova Scotia, a non-profit transportation advocacy group, he supported public initiatives aimed at providing Nova Scotians with easier access to affordable transportation. "Sedentary behaviour is a health risk," he stated, then posed the key questions: "How can we build in options for walking and cycling in daily life? In rural environments, how can we promote active as well as public transportation?" He also saw a constructive role for school boards. "What if we took a different approach to schools and made them the centre of the community?" he asked. "Chignecto-Central Regional School Board has 20,000 students, 83 percent of whom ride the school bus. Is moving schools closer to students part of the solution?" In his talk, Dr. Strang rose to the challenge posed by Ray Ivany in his 2014 report, *Now or Never Nova Scotia*: "Let's develop healthy communities in Nova Scotia: safe, affordable, and connected socially....A piece of the puzzle is taking a different approach to transportation" (Strang 2014).

Yellow school buses are currently viewed as "school board property," rather than as somewhat underused community assets. Community Transit-Nova Scotia, inspired by local initiatives in Queens County and the Antigonish region, is now urging the province and school boards to establish partnerships with municipalities to establish new community transit services using school buses during off-hours (Community Transit-Nova Scotia 2014). The overarching goal is to use capital assets better to expand the public transit network, primarily in currently unserved districts of Nova Scotia. In addition to daily early morning and afternoon school runs, community transit activists see the potential to serve a different clientele — adults and seniors — needing a means to go to town for shopping and to get home from places of work. Instead of tethering yellow buses to limited school support services, it is time to consider public demand for services in rural and small-town Nova Scotia.

Conclusion and Recommendations

Supporting student learning in the classroom is, and should be, the priority for Atlantic Canada's publicly funded school systems. With student enrolment shrinking across the region and in all but a few growing communities, budget pressures are mounting to streamline operations and make the most efficient use of K-12 educational budgets. Although publicly disclosed data are sparse, student transportation costs are eating up a greater and greater share of provincial and school board education expenditures. Over the past thirty years, student transportation costs have grown from 4 to 5 percent of school district budgets to 7 percent or more (Nova Scotia 2014b). This rise in student transportation costs, reflected in overall costs and costs per student, is evident in Nova Scotia when comparing school boards and in New Brunswick when surveying reported increases in provincial costs for student transportation services (*School Bus Fleet*, various issues).

A thorough review of student transportation in Nova Scotia reveals that, unlike most areas of public education, this area of operations has escaped close scrutiny and, much like in Ontario, attracted "little strategic oversight by most school boards" (Ontario 2014, 2). Surveying Nova Scotia's eight school boards, it is clear that route planning continues to be delegated mostly to contracted or in-house operators. Some school boards, such as Chignecto-Central, Tri-County,

and the South Shore regional boards, offer generous busing arrangements to parents affected by proposed school closures to assist in advancing their school consolidation plans. In Chignecto-Central, a school district where 82.3 percent of the 22,400 students are already bused, School Assessment Review reports contain no analysis of the impact of further school closures on either the total bused population or student transportation costs. Elected school board members also see offering enhanced student transportation as an immediate way of responding to constituents' concerns. In some boards, school bus operators are still viewed as "partners" in service delivery, rather than "vendors" accountable for finding cost or energy efficiencies.

Student transportation services are ripe for reform not only in Nova Scotia but in neighbouring Maritime provinces in Atlantic Canada. In view of our findings, provincial and school board policymakers would be well advised to take their cue from the major Student Transportation Reform initiative under way in Ontario, building upon local board transportation sharing projects and, since 2006, part of a province-wide cost-management and efficiency strategy. That overall policy, developed in collaboration with a few lead boards, is pursuing improved accountability in student transportation, building school board capacity to deliver safe, effective, and efficient services, and reducing the administrative burden on school boards. All of these measures are converging to advance a fundamental policy goal: allowing school boards to focus more on their core business—namely, student achievement (Ontario 2014, 1).

The Ontario Student Transportation Reform Strategy involved three distinct phases of policy changes. In the initial phase, the seventy-two Ontario school boards took the initiative to establish joint board consortia for student transportation services. Out of that phase emerged thirty-three joint board service consortia, which, in a second phase, were required to undergo an effectiveness and efficiency (E&E) review. Three years after their establishment, an independent team of consultants reviewed each of the individual consortia, examining four elements of their operations: governance and management structure; transportation, special needs, and safety policies and practices; scheduling software, data systems, and reporting; and competitive procurement, contracting, and performance management. The final stage, based on E&E review findings and clear performance benchmarks, aims to implement best practices in the joint sharing of student transportation services.

The Ontario Student Transportation Reform is producing results in terms of cost-management effectiveness and cost efficiencies. Some fifteen of the thirty-three provincial consortia have been established as distinct legal entities, and the Ontario government claims tangible savings of \$82.1 million over the past eight years. Comprehensive transportation policies and practices are in place that focus on student safety first, then effective and efficient operations. Attracting and training stronger student transportation management has produced dividends, driving change, upgrading skills, and embracing more innovative business practices. Transportation deficits have been reduced in rural and isolated boards, and significant cost savings have been reported as a result of efficient route planning and more competitive procurement. Those savings, in turn, have allowed more resources to be invested in classrooms or to improve student transportation service delivery levels (Ontario 2014, 2).

Provincial student transportation coordinators and district managers comfortable in their current, established roles are naturally reticent to embrace new and unfamiliar governance or

management models promising significant cost savings. A June 2010 feature article in *School Bus Fleet* magazine examining the potential of joint transportation ventures captures well the reticence found in most school board transportation departments. While acknowledging the growing “battle cry” for multiple districts to combine services, the author, Michael Dallessandro, focuses on the main reservations expressed by district-level operations managers. For those immersed in the delivery of daily bus services, it is easy to see the thicket of complex obstacles confronting proponents of shared services. Dellassandro identifies these obstacles as assuring quality of service in an expanded service area; establishing clear lines of communication among multiple carriers; harmonizing school and district school day calendars; deciding which schools arrive early and which ones stay late; rationalizing school day cancellation practices; and resolving possible discipline code variations.

Veteran student transportation managers are often skeptical about general claims that school busing costs can be fairly compared between one district and another. In July 2013, Don Ross took to the pages of *School Bus Fleet* to argue that “all states and districts are not created equal,” rendering cross-district cost comparisons somewhat problematic. Given the ad hoc, highly variable nature of most district student transportation operations, it can be difficult to compare costs. Costs per kilometre and per student are generally accepted benchmarks, but some education budgets include vehicle maintenance while others do not, particularly where such costs are managed by another government department. Frequency of road accidents can affect overall costs, especially where body shop and repair services are contracted out to local businesses. Some school bus operations are unionized and others are not, affecting driver pay rates and employee benefits (Ross 2013). It is only wise, then, to do your homework before accepting at face value extravagant claims of cost savings or even of overexpenditures.

Student transportation reform will come to Nova Scotia and other Maritime provinces when mounting cost pressures impel provinces and school boards to begin to look for more innovative ways to achieve cost efficiencies. We strongly suggest that the initial impetus should come from school districts themselves demonstrating the value and effectiveness of cooperative initiatives and joint board consortia. In that respect, Ontario and, to a lesser extent, Alberta provide important lessons on how this can be achieved and the real benefits in terms of more efficient and effective use of resources. Joint transportation initiatives in Ontario have already demonstrated the tangible cost savings and tremendous advantages of improved business practices flowing from the effective use of route scheduling technology and ridership data analysis. Consortia have emerged to assume sector-wide responsibility for “continuous improvement” and redirecting more education tax dollars into the classroom (Ontario 2014, 3). In the absence of visible local school district initiatives in Maritime Atlantic Canada, a comprehensive provincial audit of student transportation expenditures might well be needed to provide the catalyst. That audit, we believe, would only confirm the initial findings contained in this exploratory policy research report.

Key Recommendations

The time is ripe for provincial and school district authorities to tackle the growth in student transportation expenditures. Without compromising student safety, immediate steps should be taken to rein in growing student transportation costs and to find cost and energy efficiencies in

this often-neglected domain of educational operations. Daily student busing is eating up an increasing slice of the K-12 education budget. Mounting provincial deficits and tightening education budgets suggest that provinces and school districts should look first to educational support services in pursuit of cost savings. Forming joint transportation services encompassing coterminous boards is a proven success, as demonstrated in both Alberta and Ontario. Once that is achieved, the harder work will be to implement transportation management and a whole range of new business practices based on the latest advances in data collection and analysis, route scheduling software, energy efficiency, and improved point-of-service daily operations. The following recommendations provide a strategic roadmap to help governments and school boards introduce needed changes in the field of student transportation services.

Recommendation 1: Seed and support the joint sharing of student transportation services

Seize the opportunity to embrace the concept and best practice of the shared use of student transportation services, encompassing governance, facilities, vehicles, and support programs. Start by developing school district transportation management capacity, providing financial incentives and resource support to school districts and boards, enabling them to initiate amalgamated student transportation services, preferably using the joint board consortium model.

Recommendation 2: Review rural student transportation services

Assess the impact of school consolidation on student transportation costs and on student wellness and well-being, and review current funding formulas based on a population density grid.

Recommendation 3: Review special education transportation services

Support the integration of special education students, both mentally and physically handicapped, where possible, into regular school bus runs, providing differential funding at a higher rate for students designated to receive enhanced special needs support services.

Recommendation 4: Close the provincial-school district funding gap

Address the current inadequacy of provincial funding tied to standard walk limits of 3.6 km or 2.4 km, recognizing that districts and boards are compelled to subsidize most bused students, particularly in rural and remote areas or in densely populated areas subdivided by major highways or traffic arteries.

Recommendation 5: Achieve improved route management and energy efficiencies

Develop regional student transportation systems that embrace and implement leading practices, such as:

- contracting out services to achieve cost efficiencies and lower costs per student;
- joint tendering bus contracts involving coterminous school districts/boards (English public, French public; special education authorities);

- eliminating the duplication of bus service routes operated by coterminous school authorities;
- implementing double bus runs and staggered school times where feasible;
- using city-operated transit systems by providing student bus passes for junior high, middle school, and high school students;
- reducing route lengths by establishing common collection points for students attending high school alternative programs and drawn from dispersed geographic areas;
- ordering replacement buses with fuel-efficient engines and engine brakes to save on fuel consumption and reduce brake maintenance costs;
- introducing computerized route-mapping software to find the shortest and most cost-effective bus routes and safest walking routes.

Recommendation 6: Support community plans for multi-modal active transportation

Embrace Community Transit-Nova Scotia and Ecology Action Centre proposals to create, preserve, and protect walkable school communities by supporting and investing in local “Safe Routes to School” initiatives, including in-school curricula, aimed at ensuring safe routes to bus stops and increasing the proportion of students walking and bicycling to school.

Recommendation 7: Establish two pilot consortia as models of best practice

Initiate and fund the establishment of two pilot project models of joint board consortia exemplifying best practice in shared governance and the management of transportation services, targeted to test the model in both urban and primarily rural school districts.

Recommendation 8: Examine the feasibility of a Nova Scotia-wide joint services strategy

Initiate a province-wide public discussion in Nova Scotia focusing on the feasibility of merging student transportation services between the Conseil Scolaire Acadien Provincial and its seven coterminous English-language school boards.

Recommendation 9: Develop and implement reliable performance measures

Establish clear service standards for student transportation and then a set of performance measures, using established effectiveness and efficiency criteria and route-management software, tracking key indicators, including walking limits, student ride times, special program support costs, and school closure impact studies.

Recommendation 10: Undertake provincial audits of student transportation services

Formally request the provincial auditor in each province to include a comprehensive audit of student transportation services in the next cycle of provincial audits so as to provide a financial performance benchmark and identify specific areas of concern and reasonable cost-reduction targets.

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