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BUS PASSENGER SAFETY

**Report of the Standing Committee on Transport,
Infrastructure and Communities**

Honourable Judy A. Sgro, Chair

**JUNE 2019
42nd PARLIAMENT, 1st SESSION**

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Chair**

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NOTICE TO READER

Reports from committee presented to the House of Commons

Presenting a report to the House is the way a committee makes public its findings and recommendations on a particular topic. Substantive reports on a subject-matter study usually contain a synopsis of the testimony heard, the recommendations made by the committee, as well as the reasons for those recommendations.

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has the honour to present its

THIRTY-FIRST REPORT

Pursuant to its mandate under Standing Order 108(2), the Committee has studied bus passenger safety and has agreed to report the following:

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SUMMARY

Bus passenger safety has been top-of-mind for many Canadians in the past few years as recent tragic events have raised concerns regarding the safety features and crashworthiness of buses in Canada. To examine this ongoing issue, the Standing Committee on Transport, Infrastructure and Communities undertook, in April 2019, a study of bus passenger safety.

Although there is room for improvement, testimony from stakeholders demonstrated that buses, particularly school buses, are among the safest modes of transportation available. That said, the Committee heard suggestions to further improve the safety record of buses. These suggestions touched on the collection and publication process for research and test data by Transport Canada and the possibility of expanding the mandate of the Transportation Safety Board (TSB).

Many witnesses also spoke about school bus safety, particularly regarding the installation of seat belts and the potential impacts on children's safety. Testimony heard by the Committee was clear that, although seat belts do prevent certain types of injuries, they are neither a panacea, nor the only possible solution, to increasing school bus safety. The Committee heard concerns that the installation of seat belts may in fact make school buses less safe. For that reason, some witnesses expressed that further study is needed and stressed that the ongoing Task Force on School Bus Safety must be given time to properly study the issue to ensure that it reaches its overall goal of improving safety on school buses.

Witnesses also identified several regulatory changes that would improve passenger safety on motor coaches, most of which are already being developed by Transport Canada, in collaboration with provincial and territorial authorities. More specifically, witnesses representing the bus industry expressed broad support for the announced regulatory changes to require the installation of seat belts on motor coaches, although they identified some issues to be addressed to ensure a successful implementation.

LIST OF RECOMMENDATIONS

As a result of their deliberations committees may make recommendations which they include in their reports for the consideration of the House of Commons or the Government. Recommendations related to this study are listed below.

Recommendation 1

That the Government of Canada take steps to ensure that all research and results of laboratory or vehicle safety testing conducted by Transport Canada is made publicly available on the department’s website..... 8

Recommendation 2

That the Government of Canada, in collaboration with provincial and territorial authorities responsible for compiling the data, take steps to improve the quality of data provided through the National Collision Database by ensuring a more accurate identification of the types of vehicles involved in collisions..... 8

Recommendation 3

That the Government of Canada support ongoing efforts, through the Council of Ministers Responsible for Transportation and Highway Safety, to develop a national standard for entry-level commercial drivers, including bus drivers. 8

Recommendation 4

That the Government of Canada consider expanding the mandate of the Transportation Safety Board of Canada to include the investigation of serious highway accidents, as well as all accidents involving motor vehicles designed to transport nine or more passengers. 9

Recommendation 5

That the Government of Canada support ongoing efforts by Transport Canada to develop crashworthiness standards for passenger buses in excess of 11, 793 kg as well as a standard for crashworthy event data recorders, in accordance with the Transportation Safety Board of Canada’s Recommendations R15-02 and R15-03..... 13

Recommendation 6

That the Government of Canada develop and implement crashworthiness standards for both school buses and motor coaches and ensure that these standards are equivalent to or higher than those set by the American Public Transportation Association..... 13

Recommendation 7

That the Government of Canada work in collaboration with provincial and territorial authorities to study the impact of roadside infrastructure (e.g. guardrails and signage) on the incidence and severity of highway collisions involving buses, to identify possible improvements to highway safety and to ensure programs or arrangements are in place to ensure adequate funding for said improvements..... 13

Recommendation 8

That the Government of Canada direct Transport Canada to study the impacts of alternative seat designs such as integrated booster seats for children, integrated "wings" to reduce lateral head movement, and passenger airbags, on bus passenger safety. 13

Recommendation 9

That the Government of Canada support ongoing efforts by the Task Force on School Bus Safety to review data on school bus safety and seat belts and identify potential ways to strengthen school bus safety, and that it seriously consider the implementation of any recommendations made by the Task Force in this respect..... 19



BUS PASSENGER SAFETY

INTRODUCTION

The issue of bus passenger safety has been at the forefront of many Canadians' minds for the past year. On 6 April 2018, near Armley, Saskatchewan, a collision between a semi-trailer and a motor coach carrying the Humboldt Broncos hockey team claimed the lives of sixteen people and seriously injured thirteen others. On 11 January 2019, three people were killed and twenty-three injured when a transit bus crashed into a transit station overhang in Ottawa, Ontario.

These tragic events have raised significant concerns regarding the safety features and crashworthiness of buses in Canada. It is in this context that, on [1 November 2018](#), the House of Commons Standing Committee on Transport, Infrastructure and Communities (the Committee) adopted the following motion:

That the Committee shall commit to no less than four meetings to study bus passenger safety, including school buses, hearing from, in order but not limited to, emergency room physicians and coroners, the Transportation Safety Board, the U.S. National Highway Transportation Safety Authority, transportation safety advocates and stakeholders, and finally from bus manufacturers, and that the Chair be empowered to coordinate the necessary witnesses, resources and scheduling to complete this task.

Between 2 April 2019 and 28 May 2019, the Committee held five meetings on this subject. It heard from fourteen witnesses and received eight briefs.

COLLISIONS INVOLVING BUSES IN CANADA

“[N]o means of travel, in fact one could argue no human activity is ever perfectly safe. No matter how good your record, there is always more that can be done.”

[Doug Switzer](#), President and Chief Executive Officer,
Ontario Motor Coach Association, Motor Coach Canada



Witnesses were very clear that, despite room for improvement, buses¹ are among the safest modes of transportation². School buses in particular were called “the safest vehicle on the road.”³

“Over the course of the last decade, there has been one fatality of a bus occupant on a school bus, and that represents a decrease. The statistics going back to 1984 show 23 fatalities of bus occupants on school buses. That shows a significant reduction in Canada.”

Michael DeJong, Director General,
Multi-Modal and Road Safety Programs, Department of Transport

Transport Canada’s National Collision Database (NCDB) contains all police-reported motor vehicle collisions on public roads in Canada, as provided by provincial and territorial authorities. Michael DeJong, Director General, Multi-Modal and Road Safety Programs with the Department of Transport, told the Committee that the NCDB indicates a 30% decline in the number of fatalities on Canadian roads over the past 30 years, with an even more pronounced decline for school buses. However, Doug Switzer, President and Chief Executive Officer of the Ontario Motor Coach Association with Motor Coach Canada, cautioned that many road safety statistics will lump motor coaches together with either trucks as “commercial vehicles,” or with school buses and transit buses as “buses.” As a result, Mr. Switzer indicated that there is a lack of clear data to accurately identify trends relating to specific types of vehicles.

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- 1 The term “bus” is defined under the Motor Vehicle Safety Regulations (MVSr) as “a vehicle having a designated seating capacity of more than 10, but does not include a trailer or a vehicle imported temporarily for special purposes.” The MVSr define more specific types of bus in accordance with their intended purpose (i.e. “school bus,” “transit bus,” or “prison bus”). The term “motor coach,” used by witnesses throughout this study, is not defined in federal legislation. For the purposes of this report, “motor coach” refers to a bus, other than a transit bus or school bus, used primarily to transport passengers on highway routes.
 - 2 Standing Committee on Transport, Infrastructure and Communities [TRAN], *Evidence*, 1st Session, 42nd Parliament, Canadian Urban Transit Association (CUTA) (brief); John-Paul Pelletier (Vice-President, Engineering and Quality, Motor Coach Industries(MCI)); and Doug Switzer (President and Chief Executive Officer, Ontario Motor Coach Association, Motor Coach Canada (MCC)).
 - 3 TRAN, *Evidence*: Kathleen Fox (Chair, Canadian Transportation Accident Investigation and Safety Board (TSB)); Vicky Kyriaco (General Manager and Chief Administrative Officer, Ottawa Student Transportation Authority (OSTA)); and Kristin Poland (Deputy Director, Office of Highway Safety, National Transportation Safety Board (NTSB)) (brief).

According to [Dr. Daniel Rosenfield](#), Paediatric Emergency Physician with the Canadian Paediatric Society, the majority of injuries or fatalities on school buses occur off hours (evenings, weekends or holidays) and on major arteries or highways. School buses typically operate on city streets at lower speeds during the day; under these circumstances, he expressed the opinion that current safety standards are “likely sufficient” for the average trip to, and from, school. That said, as the Bus Carrier Federation pointed out in their [brief](#), many school buses in rural areas necessarily operate on highways as part of their regular daily route.

“[D]river behaviour is the leading contributing factor in fatal collisions in this country, with speeding accounting for 23%, distraction 22%, and impairment representing 19%.”

[Kevin Brosseau](#), Assistant Deputy Minister, Safety and Security, Department of Transport.

Regarding the causes of collisions, the Committee heard that driver behaviour or error is the leading cause of collisions in general, in both Canada and the United States,⁴ and that serious collisions involving buses typically occur at intersections and as a result of inexperience or inattentiveness from the part of oncoming drivers.⁵ For this reason, a number of witnesses reflected on the importance of proper bus driver training.⁶ [Kevin Brosseau](#), Assistant Deputy Minister, Safety and Security, with the Department of Transport, advised the Committee that the Council of Ministers Responsible for Transportation and Highway Safety is currently developing a national standard for entry-level training for commercial drivers. This standard would include bus drivers and is to be completed by January 2020.

[Dr. Rosenfield](#) confirmed that higher vehicle speed increases the risk of serious injury or death in the event of a collision. He added that the main cause of death for children involved in bus collisions is head injuries, which are more likely in high-speed situations that result in rollovers or ejection. For his part, [Mr. Brosseau](#) indicated that it is often a

4 TRAN, *Evidence*: [Kevin Brosseau](#) (Assistant Deputy Minister, Safety and Security, Department of Transport (Transport Canada)); and Poland (NTSB) ([brief](#)).

5 TRAN, *Evidence*: [Sgt. Trent Entwistle](#) ([Manager, National Collision Reconstruction Program, Royal Canadian Mounted Police](#) (RCMP)).

6 TRAN, *Evidence*: Terry Hall (Chief Financial Officer/Assistant Director of Education (Corporate Services), Newfoundland and Labrador English School District (NLESD) ([brief](#)); and [Jason Roberts](#) (Chief Executive Officer, DRL Coach Lines Ltd. (DRL)).



high variance in speeds between the vehicles involved in a collision that increases the risk of serious injury or fatality.

As the Committee heard, Transport Canada is actively engaged in research and vehicle safety testing. However, in his [brief](#), Mr. Dainius Dalmotas, President and CEO of D.J. Dalmotas Consulting, Inc., criticized the department's lack of transparency. He suggested that Canada should adopt the U.S. model of "full-disclosure" in terms of public availability of research and safety testing results.

Recommendation 1

That the Government of Canada take steps to ensure that all research and results of laboratory or vehicle safety testing conducted by Transport Canada is made publicly available on the department's website.

Recommendation 2

That the Government of Canada, in collaboration with provincial and territorial authorities responsible for compiling the data, take steps to improve the quality of data provided through the National Collision Database by ensuring a more accurate identification of the types of vehicles involved in collisions.

Recommendation 3

That the Government of Canada support ongoing efforts, through the Council of Ministers Responsible for Transportation and Highway Safety, to develop a national standard for entry-level commercial drivers, including bus drivers.

JURISDICTION AND RESPONSIBILITIES

Bus safety in Canada is a shared jurisdiction. The Government of Canada, under the [Motor Vehicle Safety Act](#) and [Motor Vehicle Safety Regulations](#) (MVSR), establishes manufacturing standards for motor vehicles. For their part, provincial and territorial authorities are responsible for enforcing road and highway safety, as well as for determining what safety features are required for a motor vehicle to lawfully operate on the road. Similarly, licencing and training requirements, maintenance standards, as well as school bus standards and lifespan limits are all regulated by provincial and territorial transportation or education authorities.

When a serious collision involving a bus occurs, police experts investigate to determine the cause of the accident. In much of the country, with the exception of Ontario and

Québec as well as areas served by local police forces, this task would fall to RCMP collision analyst-reconstructionists. When a vehicle defect or failure is suspected, or if the crash involves a school bus, Transport Canada engineers become involved.⁷

Although the [Transportation Safety Board of Canada](#) (TSB) participates in investigations when a motor vehicle collision also involves an air, marine, pipeline or rail component, highway safety itself falls outside of the TSB's mandate.⁸ [Kathleen Fox](#), Chair of the Canadian Transportation Accident Investigation and Safety Board, explained to the Committee that the TSB therefore has limited data available on bus safety, as it only collects and analyzes information about accidents that fall within its mandate.

The Committee was told that the TSB's counterpart in the United States, the National Transportation Safety Board (NTSB), is mandated to investigate "significant" motor vehicle accidents with the goal of making formal and informal recommendations to improve safety.⁹ Moreover, [Mr. Brosseau](#) confirmed that when the TSB does become involved in a collision investigation, the information it provides to Transport Canada is "of great value."

Recommendation 4

That the Government of Canada consider expanding the mandate of the Transportation Safety Board of Canada to include the investigation of serious highway accidents, as well as all accidents involving motor vehicles designed to transport nine or more passengers.

MOTOR COACHES AND TRANSIT BUSES

In December 2015, a TSB report on the collision of a VIA Rail passenger train with an OC Transpo transit bus that occurred in September 2013 in Ottawa made the following recommendations regarding bus safety:

That the Department of Transport

7 TRAN, *Evidence*: [Supt. Jamie Solesme](#), Director of Policy and Programs, National Criminal Operations, Royal Canadian Mounted Police (RCMP).

8 TRAN, *Evidence*: [Fox](#) (TSB).

9 TRAN, *Evidence*: [Fox](#) (TSB); and Poland (NTSB) ([brief](#)).



- a) in consultation with the provinces, develop comprehensive guidelines for the installation and use of in-vehicle video monitor displays to reduce the risk of driver distraction;¹⁰
- b) develop and implement crashworthiness standards for commercial passenger buses to reduce the risk of injury;¹¹
- c) require commercial passenger buses to be equipped with dedicated, crashworthy, event data recorders.¹²

Of particular concern was the report's finding that passenger buses in excess of 26,000 lbs (11, 793 kg) have no protection standards for frontal or side impact, crush or rollover, where the integrity of the passenger compartment is critical.¹³

Mr. Brosseau indicated that Transport Canada has successfully addressed the first recommendation by publishing, in February 2019, Guidelines to Limit Distractions from Visual Displays in Vehicles. Mr. Brosseau also advised that a standard for crashworthiness is in development, and that, despite initial delays, the process is being accelerated to begin crash testing in the summer of 2019. Finally, the Committee heard that efforts are ongoing to develop a standard for crashworthy event data recorders.¹⁴

Seat Belts

In June 2018, Transport Canada introduced new requirements, beginning on 1 September 2020, for all new buses weighing more than 4,536 kg to be equipped with standard three-point seat belts¹⁵ for the driver and all passengers. School buses and transit buses were excluded from this regulation. According to a brief submitted by the Canadian Urban Transit Association, standing room on transit buses allows for an increased carrying capacity without any reduction in safety.

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- 10 Transportation Safety Board of Canada (TSB), Reassessment of the Response to TSB Recommendation R15-01, March 2019.
 - 11 TSB, Reassessment of the Response to TSB Recommendation R15-02, March 2019.
 - 12 TSB, Reassessment of the Response to TSB Recommendation R15-03, March 2019.
 - 13 TRAN, *Evidence*: Fox (TSB).
 - 14 TRAN, *Evidence*: Brosseau (Transport Canada); and TSB, R15-03.
 - 15 A three-point seat belt, or what the MVSR refer to as a "Type 2 seat belt assembly," combines a lap restraint with a diagonal shoulder strap. This is opposed to a two-point seat belt, or "Type 1 seat belt assembly," which is a lap belt only.

As the Committee heard, this new requirement has significant support from the bus industry.¹⁶ In fact, [Mr. Switzer](#) indicated that the industry had been lobbying for such changes for over a decade. As such, many motor coaches in Canada are already equipped with seat belts.¹⁷ In fact, according to [Scott Parsons](#), President of Parsons and Sons Transportation, some coach manufacturers took the initiative in the early 2000s to ensure that their new buses would be built to support a future retrofit in the event of new seat belt regulations.

[Mr. Switzer](#) explained that retrofitting is complicated and potentially dangerous if done incorrectly, as the seats themselves may need significant modifications to ensure that they can properly support the three-point seat belts in the event of a collision. Some witnesses estimated that the cost to retrofit a motor coach may vary from \$40,000 to over \$80,000, depending on the need for structural upgrades.¹⁸

As the Committee was told, it is difficult to determine how long it may be before all motor coaches operating in Canada will have seat belts. The new regulations are strictly manufacturing guidelines, and do not include a requirement for a retrofit. Furthermore, witnesses indicated that, despite regulated lifespans in some provinces, and depending on use and conditions, motor coaches can remain in service for up to 20 years.¹⁹

Compliance and Responsibility

The issue of compliance with seat belt regulations is strictly a provincial matter. Nevertheless, a number of witnesses expressed significant concern regarding this issue. Although there was no consensus on the extent to which bus passengers currently use seat belts, when seat belts are installed,²⁰ several witnesses indicated that the driver should not be held responsible for ensuring that passengers are properly secured.²¹

[Mr. Switzer](#) suggested that, in the case of charter buses, the tour guide, coach or other person who organized the trip should be held responsible for ensuring that passengers

16 TRAN, *Evidence*: [Scott Parsons](#) (President, Parsons and Sons Transportation (Parsons and Sons)); and [Roberts](#) (DRL).

17 TRAN, *Evidence*: CUTA ([brief](#)); Pierre Maheux (President, Les Autobus Maheux Ltd. (Autobus Maheux)) ([document](#)); [Roberts](#) (DRL); [Parsons](#) (Parsons and Sons); [Pelletier](#) (MCI); and [Switzer](#) (MCC).

18 TRAN, *Evidence*: Maheux (Autobus Maheux) ([document](#)); [Roberts](#) (DRL); and [Parsons](#) (Parsons and Sons).

19 TRAN, *Evidence*: Maheux (Autobus Maheux) ([document](#)); [Roberts](#) (DRL); and [Switzer](#) (MCC).

20 TRAN, *Evidence*: [Phil Benson](#) (Lobbyist, Teamsters Canada (Teamsters)); Maheux (Autobus Maheux) ([document](#)); [Roberts](#) (DRL); [Switzer](#) (MCC); and [Parsons](#) (Parsons and Sons).

21 TRAN, *Evidence*: [Benson](#) (Teamsters); [Roberts](#) (DRL); and [Switzer](#) (MCC).



are wearing their seat belts. [Jason Roberts](#), Chief Executive Officer of DRL Coach Lines Ltd., told the Committee that his own buses have an on-board attendant that can assist in enforcing seat belt use, but he cautioned that this service comes with a cost and is extremely rare in the industry.

Other Safety Measures

“Seat belts are important and no one would suggest otherwise, and we certainly don’t suggest otherwise, but they are not a panacea for all incidents.”

[Doug Switzer](#), President and Chief Executive Officer,
Ontario Motor Coach Association, Motor Coach Canada

Witnesses who testified during the Committee’s study were very clear that seat belts are not the only solution to safety on buses. [Phil Benson](#), Lobbyist with Teamsters Canada, [Mr. Parsons](#) and [Mr. Switzer](#) indicated that other approaches must also be discussed, such as enforcement of current regulations, driver training, structural integrity of the bus, reducing driver distraction and better highway construction including guardrails and signage.

The Committee asked witnesses about several different approaches to improving seat design, such as integrated booster seats²², integrated “wings” to reduce side-to-side head movements in a collision²³, as well as airbags.²⁴ Witnesses, however, were not aware of any serious efforts to incorporate these features on a widespread basis, nor any studies addressing their potential effects.

With regards to ensuring the safety of pedestrians around buses, [Jean-Paul Pelletier](#), Vice-President, Engineering and Quality, with Motor Coach Industries, advised that bird’s eye view cameras on motor coaches can help avoid collisions during low-speed maneuvering. The Committee also heard that industry supports anticipated regulations mandating the use of electronic logging devices (ELDs) to reduce driver fatigue.²⁵

22 TRAN, *Evidence*: [Pelletier](#) (MCI); and Poland (NTSB) ([document](#)).

23 TRAN, *Evidence*: Poland (NTSB) ([document](#)).

24 Ibid.

25 TRAN, *Evidence*: [Brosseau](#) (Transport Canada).

[Mr. Switzer](#) indicated that many in the industry have been waiting for such regulations for some time as ELDs will help enforce current “hours of service” rules.

Recommendation 5

That the Government of Canada support ongoing efforts by Transport Canada to develop crashworthiness standards for passenger buses in excess of 11, 793 kg as well as a standard for crashworthy event data recorders, in accordance with the Transportation Safety Board of Canada’s Recommendations R15-02 and R15-03.

Recommendation 6

That the Government of Canada develop and implement crashworthiness standards for both school buses and motor coaches and ensure that these standards are equivalent to or higher than those set by the American Public Transportation Association.

Recommendation 7

That the Government of Canada work in collaboration with provincial and territorial authorities to study the impact of roadside infrastructure (e.g. guardrails and signage) on the incidence and severity of highway collisions involving buses, to identify possible improvements to highway safety and to ensure programs or arrangements are in place to ensure adequate funding for said improvements.

Recommendation 8

That the Government of Canada direct Transport Canada to study the impacts of alternative seat designs such as integrated booster seats for children, integrated "wings" to reduce lateral head movement, and passenger airbags, on bus passenger safety.

SCHOOL BUSES

“Bus safety is not just a responsibility of bus drivers and the buses on the roads. It’s everybody’s obligation on the road. We’re talking about other drivers, passing a school bus, the intersections and not paying attention. All the different dynamics that relate to school bus crashes I think have to be taken as a whole.”

[Superintendent Jamie Solesme](#), Director of Policy and Programs,
National Criminal Operations, RCMP



As indicated previously, witnesses were very clear that school buses are among the safest modes of transportation, with several explicitly stating that children are safer on a school bus than they are in a personal vehicle.²⁶

As [Mr. Brosseau](#) told the Committee, school buses have reinforced sides, offering more protection than other types of buses. [Mr. Brosseau](#) also added that any discussion on school bus safety should not be limited to safety inside the bus, but also include the dangers facing children as pedestrians around the bus. In fact, the Committee heard that children are at higher risk of injury or death as pedestrians around a school bus than as passengers on a school bus. In its [brief](#), the Bus Carrier Federation added that the main causes of illegal passing or crossing in front of school buses are distraction and confusion about applicable rules. [Dr. Rosenfield](#) also indicated that detection technologies such as blind-spot cameras have made school buses much safer by helping the driver see around the bus, though he noted that there is insufficient research into the exact impact of these innovations.

Compartmentalization

“Any way we can keep kids in their compartment, either by being belted or with other technologies [...] would be the best way to mitigate potential injuries.”

[Dr. Daniel Rosenfield](#), Paediatric Emergency Physician,
Canadian Paediatric Society

School bus seating is currently designed according to a system of compartmentalization. This involves high padded seat backs that are meant to safely absorb the force of impact during a collision when children slide forward and hit the seat back in front of them. Current research suggests that, while compartmentalization is effective in front-back collisions and at lower speeds, it performs poorly in lateral collisions or rollovers.²⁷

As indicated previously, the installation of three-point seat belts requires the seat to be structurally strong enough to support the belts in the event of a collision. However, as [Mr. DeJong](#) explained to the Committee, a seat that has been stiffened to support seat belts may no longer be able to sufficiently absorb an impact, potentially increasing the

26 TRAN, *Evidence*: [Brosseau](#) (Transport Canada); CUTA ([brief](#)); Hall (NLESD) ([brief](#)); and [Dr. Daniel Rosenfield](#) (Paediatric Emergency Physician, Canadian Paediatric Society (CPS)).

27 TRAN, *Evidence*: [Parsons](#) (Parsons and Sons); Poland (NTSB) ([brief](#)); [Dr. Rosenfield](#) (CPS); and [Switzer](#) (MCC).

risk of injury. Due to this uncertainty, Transport Canada is investigating the potential impact the installation of seat belts may have on compartmentalized seats.

Seat Belts

“If a seat belt is improperly worn, it won’t do what it’s designed to do in protecting your body in the event of a collision.”

[Sergeant Trent Entwistle](#), Manager,
National Collision Reconstruction Program, RCMP

[Mr. DeJong](#) informed the Committee that Transport Canada’s [Task Force on School Bus Safety](#) is currently collaborating with provincial and territorial authorities, school bus fleet operators and education authorities, safety and advocacy groups, industry and academia to study the issue of seat belts in school buses. In its [brief](#), the Ontario School Bus Association (OSBA) stressed the need for the task force to be given adequate time to properly study the issue. It warned that a hurried study would undermine the task force’s purpose and overall goal to improve safety in school buses.

Recent amendments to the MVSR included [Technical Standards](#) relating to school bus passenger seating and crash protection. While these do not include a requirement for school buses to be equipped with seat belts, they do impose technical standards for any seat belts that a manufacturer may choose to install on a school bus. These standards include the requirement for three-point seat belts, as opposed to lap belts. In that regard, witnesses were clear that three-point seat belts are much safer than lap belts,²⁸ which are associated with significant spinal and internal organ injuries, particularly following front-back collisions, and head injuries in side and lateral collisions.²⁹

Although a number of witnesses agreed that seat belts help prevent ejection in the event of serious collisions and do provide an additional layer of protection under certain circumstances,³⁰ others also stressed the risks of mandating seat belts too quickly, without regard for the complexity of the issue. As [Mr. Benson](#) told the Committee: “[i]f seat belts are to be mandatory, it must be done right or the introduction of regulations

28 TRAN, *Evidence*: Hall (NLESD) ([brief](#)); [Dr. Rosenfield](#) (CPS); and Poland (NTSB) ([brief](#)).

29 TRAN, *Evidence*: [Parsons](#) (Parsons and Sons); and [Dr. Rosenfield](#) (CPS).

30 TRAN, *Evidence*: [Brousseau](#) (Transport Canada); Bus Carrier Federation ([brief](#)); [Dr. Rosenfield](#) (CPS); [Parsons](#) (Parsons and Sons); and Poland (NTSB) ([brief](#)).



will lengthen the working day, fail to achieve safety goals for our children and complicate the lives of drivers.”

[Mr. Roberts](#) and [Mr. Switzer](#) commented that not all injuries can be prevented by seat belts, and seat belts are not the best way to defend against all injuries. Witnesses stressed that more research is needed to ensure that mitigating the risk of certain injuries does not exacerbate the risk of other types of injuries.³¹

Several witnesses were also clear that a seat belt worn inappropriately or not fitting correctly may cause more significant injury than if it were not worn at all.³² Determining the proper fit of a seat belt is a complex issue, given that one bus can carry up to 70 children ranging from kindergarten to grade 12.³³ In a [document](#) providing written responses to questions from committee members, Ms. Kristin Poland, Deputy Director of the Office of Highway Safety with the (U.S.) National Transportation Safety Board, indicated that the NTSB has not seen specific safety risks to smaller passengers in lap/shoulder belts. However, [Sgt. Trent Entwistle](#), Manager of the National Collision Reconstruction Program with the RCMP, stated that car seats or booster seats are essential for smaller children, to ensure a proper fit with the seat belt.

The Committee was told that a solution could be to require the use of seat belts only when school buses are travelling on a highway. [Mr. Parsons](#) suggested that, while compartmentalization may be sufficient at lower speeds, three-point seat belts should be required when a school bus is travelling on a highway. [Mr. Roberts](#) also indicated that, in his view, a motor coach equipped with such seat belts is currently safer than a school bus when travelling on a highway. In his [brief](#), Terry Hall, Chief Financial Officer and Assistant Director of Education (Corporate Services) for the Newfoundland and Labrador English School District (NLESD), disagreed. He explained that the NLESD’s Field Trip Protocol promotes the use of school buses over motor coaches as school buses have higher standards in terms of crashworthiness, frequency of inspections, as well as age limits. Mr. Hall did, however, indicate that the NLESD may reevaluate this protocol if new federal crashworthiness standards are introduced for motor coaches.

Some witnesses also observed that seat belts should not impede children’s ability to quickly leave their seats and evacuate the school bus in the event of an emergency.³⁴ In

31 TRAN, *Evidence*: [Brosseau](#) (Transport Canada); and Bus Carrier Federation ([brief](#)).

32 TRAN, *Evidence*: Bus Carrier Federation ([brief](#)); [Kyriaco](#) (OSTA); and [Dr. Rosenfield](#) (CPS).

33 TRAN, *Evidence*: [Brosseau](#) (Transport Canada); and CUTA ([brief](#)).

34 TRAN, *Evidence*: [Benson](#) (Teamsters); Bus Carrier Federation ([brief](#)); [Michael DeJong](#) Director General, Multi-Modal and Road Safety Programs, Department of Transport (Transport Canada)); and [Kyriaco](#) (OSTA).

fact, both [Vicky Kyriaco](#), General Manager and Chief Administrative Officer of the Ottawa Student Transportation Authority, and [Mr. Benson](#) indicated that the need to quickly evacuate a school bus is more likely than a collision in which children are ejected from their vehicle.

“We anticipate that a busload of 70 children in full winter gear will not be able to undo their seat belts and evacuate a burning bus as quickly as is necessary to avoid smoke inhalation and burns, particularly if the bus is on its side or upside down.”

[Vicky Kyriaco](#), General Manager and Chief Administrative Officer,
Ottawa Student Transportation Authority.

Finally, several witnesses indicated that there is insufficient data to confirm whether seat belts would make school buses safer in Canada at the present time.³⁵ In particular, the Committee heard that there has been no research into how snow suits impact the effectiveness of seat belts, and whether the added padding and compression may in fact increase the risk of injury in the event of a collision.³⁶

Compliance and Responsibility

“[D]rivers must always remain at the wheel to maintain full control of the vehicle while conducting safety-critical functions. They must also maintain visual contact with vehicular traffic and with children, outside and inside the bus, while preparing to move safely to the next stop. Drivers cannot leave their station, cannot be responsible for buckling and unbuckling children, and must not be held liable if children are not buckled in.”

[Phil Benson](#), Lobbyist,
Teamsters Canada

35 TRAN, *Evidence*: Bus Carrier Federation ([brief](#)); [Kyriaco](#) (OSTA); and Ontario School Bus Association (OSBA) ([brief](#)).

36 TRAN, *Evidence*: Bus Carrier Federation ([brief](#)); and [Kyriaco](#) (OSTA).



In terms of compliance with seat belt regulations, which as previously mentioned falls under provincial and territorial jurisdiction, some witnesses pointed out that younger children are unable to properly adjust their own seat belts without assistance.³⁷ For that reason, it was suggested that a monitor or chaperone could be responsible for ensuring children are properly secured.³⁸ In its [brief](#), the Bus Carrier Federation pointed out however that, under current provincial legislation, the driver would still be considered responsible and the monitor would not be permitted to stand while the vehicle is in motion, limiting their ability to ensure a child is properly buckled.

The Bus Carrier Federation's [brief](#) also raised other issues such as the risk involved in allowing physical contact with children, additional costs for employment and criminal record checks of monitors, and the complexity of allowing parents to secure their own children, given time constraints and common school board regulations requiring criminal record checks before an adult may board a school bus. Regardless of alternative options, many witnesses argued that drivers have enough responsibilities in relation to the safe operation of the school bus, and that they should not also be responsible for enforcing seat belt compliance.³⁹

Operational Impacts

Several witnesses warned that the imposition of mandatory seat belts on school buses would have significant operational impacts on school transportation providers and exacerbate an ongoing driver shortage.⁴⁰ Indeed, the Committee heard that the added time required to ensure that children are properly secured would necessitate a restructuring of bus routes, likely resulting in a significant increase in the number of buses needed to maintain current service levels.⁴¹ Furthermore, [Ms. Kyriaco](#) and Mr. Hall, in his [brief](#), indicated that the installation of seat belts would likely reduce capacity to two children per seat, whereas, according to them, it is typical to sit three children in a seat at the present time. This reduction in capacity would further increase the need for additional buses to maintain current service levels.

37 TRAN, *Evidence*: [Benson](#) (Teamsters); Bus Carrier Federation ([brief](#)); and [Kyriaco](#) (OSTA).

38 TRAN, *Evidence*: [Benson](#) (Teamsters); Bus Carrier Federation ([brief](#)); Hall (NLESD) ([brief](#)); [Roberts](#) (DRL); and [Switzer](#) (MCC).

39 TRAN, *Evidence*: [Benson](#) (Teamsters); Bus Carrier Federation ([brief](#)); Hall (NLESD) ([brief](#)); and [Roberts](#) (DRL).

40 TRAN, *Evidence*: [Benson](#) (Teamsters); Bus Carrier Federation ([brief](#)); and [Kyriaco](#) (OSTA).

41 TRAN, *Evidence*: [Benson](#) (Teamsters); Bus Carrier Federation ([brief](#)); [Kyriaco](#) (OSTA); OSBA ([brief](#)); and [Parsons](#) (Parsons and Sons).

With increased operational demands in the context of a driver shortage, some witnesses warned that the situation could be exacerbated by a decreased interest in becoming a school bus driver if there is higher responsibility placed on the driver, including the risk of liability and demerit points if seat belts are worn incorrectly. Also, disciplinary actions by employers could be taken if drivers are unable to complete their route in time.⁴²

According to [Ms. Kyriaco](#), some school transportation providers would not be able to maintain current service levels in the face of these new operational demands, based on current levels of funding. The OSBA, in their brief, agreed with this assessment and warned that children who currently ride on a school bus that does not have seat belts might need to take another form of transportation if seat belts were introduced. As previously indicated, it was made clear to the Committee that other forms of transportation are not as safe as a school bus, even without seat belts.

Retrofitting

The issue of retrofitting school buses is fairly complex, due to current manufacturing requirements based on the compartmentalization system. [Mr. Parsons](#) and [Mr. Roberts](#) expressed concern that current school buses are too light to properly support the installation of three-point seat belts. In its [brief](#), the Bus Carrier Federation also indicated that manufacturers are reluctant to guarantee school buses retrofits, due to uncertainty regarding the long-term impact of such modifications.

Nevertheless, the Committee heard several estimates from witnesses placing the cost of retrofitting a school bus for seat belts in the range of \$8,000 to \$20,000.⁴³ According to [Mr. Brosseau](#), the life expectancy of a school bus is approximately ten years, although [Mr. Benson](#) indicated that many buses at the end of their service life are “forwarded” on to another user, such as churches or work sites, or even to provinces with a longer legislated lifespan, instead of being taken off the road.

Recommendation 9

That the Government of Canada support ongoing efforts by the Task Force on School Bus Safety to review data on school bus safety and seat belts and identify potential ways to

42 TRAN, *Evidence*: [Benson](#) (Teamsters); Bus Carrier Federation ([brief](#)); and [Kyriaco](#) (OSTA).

43 TRAN, *Evidence*: [Benson](#) (Teamsters); [Brosseau](#) (Transport Canada); Bus Carrier Federation ([brief](#)); and Maheux (Autobus Maheux) ([document](#)).



strengthen school bus safety, and that it seriously consider the implementation of any recommendations made by the Task Force in this respect.

OTHER TYPES OF BUSES

The Committee also sought information on small school buses and minibuses. As [Dr. Rosenfield](#) indicated however, most studies do not distinguish between full-size buses, minibuses, van combinations, or other types of small school transports.

Regarding small school buses, [Mr. DeJong](#) told the Committee that “the small school bus safety record is exceptionally strong. Where there were injuries and fatalities over the period of 1992 to 2017 in large school buses, there were none in terms of small buses.”

CONCLUSION

Throughout this study, the Committee heard from witnesses about the complexity of evaluating potential improvements to bus passenger safety. It was made clear to members that there is no “silver bullet” that will definitively increase safety in all situations. Although seat belts would undoubtedly prevent some serious injuries or fatalities, they are not the only solution to ensuring the safety of bus passengers in Canada. Nor is their installation benign or necessarily an improvement upon other safety features already in place, particularly in school buses. Improperly installing or fitting a seat belt on a bus may in fact cause more injuries and deaths than it may avoid.

The Committee supports Transport Canada’s ongoing development of several regulatory improvements to bus safety, as well as the study undertaken by the Task Force on School Bus Safety. The Committee strongly recommends that the Government of Canada take steps to implement any recommendations that may be made as a result of these efforts.

APPENDIX A LIST OF WITNESSES

The following table lists the witnesses who appeared before the Committee at its meetings related to this report. Transcripts of all public meetings related to this report are available on the Committee’s [webpage for this study](#).

Organizations and Individuals	Date	Meeting
Canadian Paediatric Society Dr. Daniel Rosenfield, Paediatric Emergency Physician	2019/04/02	135
Canadian Transportation Accident Investigation and Safety Board Kathleen Fox, Chair Kirby Jang, Director Rail and Pipeline Investigations Jean L. Laporte, Chief Operating Officer	2019/04/02	135
Royal Canadian Mounted Police Supt Trent Entwistle, Manager National Collision Reconstruction Program Sgt Jamie Solesme, Director of Policy and Programs National Criminal Operations	2019/04/02	135
Department of Transport Kevin Brosseau, Assistant Deputy Minister Safety and Security Michael DeJong, Director General Multi-modal and Road Safety Programs	2019/04/04	136
Ottawa Student Transportation Authority Vicky Kyriaco, General Manager and Chief Administrative Officer	2019/04/04	136
DRL Coach Lines Ltd Jason Roberts, Chief Executive Officer	2019/04/09	137
Motor Coach Canada Doug Switzer, President and Chief Executive Officer Ontario Motor Coach Association	2019/04/09	137

Organizations and Individuals	Date	Meeting
Motor Coach Industries John-Paul Pelletier, Vice-President Engineering and Quality	2019/04/09	137
Parsons and Sons Transportation Scott Parsons, President	2019/04/09	137
Teamsters Canada Phil Benson, Lobbyist	2019/04/09	137

APPENDIX B LIST OF BRIEFS

The following is an alphabetical list of organizations and individuals who submitted briefs to the Committee related to this report. For more information, please consult the Committee's [webpage for this study](#).

Bus Carriers Federation

Canadian Association of Emergency Physicians

Canadian Urban Transit Association

D. J. Dalmotas Consulting, Inc.

Gorski, Zygmunt

Newfoundland and Labrador English School District

Ontario School Bus Association

Shalaby, Ahmed

United States National Transportation Safety Board

REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the Committee requests that the government table a comprehensive response to this Report.

A copy of the relevant *Minutes of Proceedings* ([Meetings Nos. 135 to 137, 140 and 145](#)) is tabled.

Respectfully submitted,

Hon. Judy A. Sgro, P.C., M.P.
Chair

