Commercial Trucking Insurance and Education

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List of Acronyms

Acronym	Definition			
AB	Alberta			
ELT	Entry-level training			
GISA	General Insurance Statistical Agency			
IBC	Insurance Bureau of Canada			
MELT	Mandatory entry-level training			
NB	New Brunswick			
NFL	Newfoundland and Labrador			
NS	Nova Scotia			
ON	Ontario			
PEI	Prince Edward Island			
N.O.C.	National Occupational Classification			

Acknowledgements

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Executive Summary

Provinces in Canada have been increasing the training requirements and implementing mandatory entry-level training (MELT) programs for Class 1 drivers. At the same time the trucking industry is facing a driver shortage and there are concerns that training costs and requirements could make it more difficult for people to enter the truck driving profession. The cost of insurance is also a consideration as carriers are likely to pay higher insurance premiums for new and/or inexperienced drivers.

The Insurance Bureau of Canada (IBC) engaged MNP LLP (MNP) to conduct a review and jurisdictional scan of commercial truck driver training in various Canadian and international jurisdictions to identify best practices and how changes in training requirements could contribute to road safety.

Key Findings

- Insurance premiums are highly correlated with claims expenses and the risk of a claim being made. Claims expenses are the largest contributor to increases in premiums. Premiums for drivers with less than three years of experience or less than three years since a claim are higher than those for drivers with more experience and more than three years without a claim. Premiums for these drivers are also increasing at a faster rate.
- New, inexperienced truck drivers are more likely to be involved in accidents. There is a clear correlation between truck driver experience and training, and the rate and severity of claims. Younger and inexperienced drivers tend to have more accidents and, when these occur, they are often more severe than those of older, more experienced drivers. Consequently, as new drivers enter the industry to replace those retiring, the cost of insurance is likely to increase unless steps are taken to reduce accident rates.
- The risks associated with different commodities vary and this impacts the level of liability coverage. Accidents involving heavy loads or dangerous goods tend to have higher severities and the potential for greater damage. As a result, the level of liability coverage required increases when these goods are being transported and this increases premiums.
- Cross border risks create exposure to "Nuclear Jury Verdicts." Varying regulations in each
 jurisdiction and increased frequency of interurban travel and travel to other jurisdictions is
 resulting in less certainty with claim amounts and exposure to significant jury verdicts in the United
 States. Consequently, premiums for vehicles travelling outside of Canada are increasing.
 Interviewees identified this as a concern for all Canadian jurisdictions, but it was of particular
 concern in Alberta.
- Enforcement of safety violations appears to be inadequate. Research has shown that roadside
 inspections and facility audits lead to increased compliance with safety measures. After the
 removal of the Commercial Vehicle Safety Alliance (CVSA) targets for inspections and audits in the
 2008/09 government fiscal year the number of roadside inspections and facility audits remained



relatively stable in most Canadian jurisdictions.¹ However, reviews by the Auditor Generals in Alberta and Ontario covering the 10-year period following removal of the targets found that enforcement of safety violations were inadequate. As of 2021 Alberta had implemented the Auditor General's recommendations with respect to enforcement while the Ontario Ministry of Transportation reported that it had fully implemented less than 20 percent of the Auditor General's recommendations.

- National Safety Code (NSC) 16: Entry Level Training (Class 1) has not been consistently implemented. While most NSC standards have been implemented through regulation or legislation, implementation of NSC 16: Entry Level Training (Class 1) varies by jurisdiction. Of the seven provinces² and three territories reviewed, three have mandatory training Alberta, Ontario, and Northwest Territories. MELT has not yet been implemented in Quebec, Atlantic Canada, Yukon, and Nunavut.
- Training quality varies by school and there is a need for oversight and enforcement of standards. There is inconsistency in how entry-level training is delivered and not all schools provide training consistent with the defined standards.

Role of Training in Improving Driver Safety

- Entry-level training programs in Canada are not designed to fully prepare drivers for
 operating heavy trucks in all conditions. Entry-level programs are intended to provide exposure
 to the industry and basic skills to pass the Class 1 test. They do not cover the full range of
 competencies required of drivers which means that graduating drivers do not yet have the full set
 of skills required to be road ready.
- Entry-level training programs in Canada need to be followed with onboarding and mentorship. Regular one-on-one mentoring and training from experienced drivers can increase the safety of new drivers. Coaching interventions (i.e., one-on-one discussions with an experienced driver) and Behavior-Based Safety (BBS) methods (which include regular coaching by an experienced driver) have been found to be effective in reducing driver errors (i.e., harsh braking and cornering) and safety related events.
- Smaller trucking companies (carriers) may be challenged to provide onboarding and mentorship programs. Onboarding and mentorship programs require an investment of time and increase the costs associated with newer drivers. For smaller carriers the costs of developing and providing such programs on their own may be prohibitive.

Conclusion

Improvements in road safety could reduce the risk of a claim being made and reduce the overall cost of claims. Reductions in claim costs would be reflected in adjustments to insurance premiums.

¹ CVSA roadside inspection and facility audit targets had been in place for all Canadian provinces and territories, not only for the jurisdictions of focus for this study.

² The review was limited to jurisdictions with competitive insurance markets in Canada.



Our review suggests that changes to oversight and enforcement of safety violations, and driver training have the potential to improve road safety. Increasing enforcement of safety violations could increase compliance with safety measures and encourage carriers to develop a culture of safety. Improvements to training for drivers that could improve road safety are:

- Improve oversight of training providers. Increasing oversight and enforcement of training standards at driving schools offering commercial driver training could increase the quality and consistency of training and ensure it meets the defined standards.
- Development of onboarding and mentorship programs by industry associations that could be utilized by carriers. Sharing the cost of program development and administration could lower the cost of providing onboarding and mentorship to new drivers and make it easier for carriers to provide it. Funding for the development and administration of the program could be provided through partnerships between insurers, carriers and government.
- Piloting the use of telematics to provide drivers with feedback. The use of technology to provide feedback to drivers has the potential to reduce the cost of onboarding and mentorship. At present there is no consensus on whether telematics is effective at increasing driver safety. To address this gap a pilot project could be undertaken to assess the effectiveness of the use of telematics in providing feedback and increasing safety.
- **Piloting the use of graduated or progressive licensing**. Such a system allows novice drivers to gain experience gradually, starting with restricted driving conditions and advancing to more complex scenarios over time.

To illustrate the impact of improvements in safety on claim costs we estimated the reduction in claim costs for each accident avoided for drivers with three years of experience driving a logging truck in Alberta. Table A shows the reduction in claim costs for each accident avoided. In 2015 claim severity was significantly higher than between 2016 and 2018. Each accident avoided in 2015 would have reduced claim costs per policy by approximately \$581.80. Between 2016 and 2018 each accident avoided would have reduced claim costs per policy by between \$100 and \$125.

Table A: Reduction in Claim Costs from Improved Road Safety³

Policy Year	Number of Earned Vehicles	Number of Claims	Claims and Adjustment Expenses	Average Cost Per Claim	Reduction in Claim Costs	Reduction in Claim Costs per Policy
2015	206	3	\$357,277	\$119,851	33.5%	\$581.80
2016	221	4	\$106,502	\$23,773	22.3%	\$107.57
2017	231	7	\$157,599	\$22,546	14.3%	\$97.60
2018	223	9	\$244,837	\$27,268	11.1%	\$122.28

³ Number of earned vehicles, claims, claims and adjustments expenses and average cost per claim are from GISA, 1502 Exhibit.



1.0 Introduction

1.1 Background and Purpose

Provinces in Canada have been increasing the training requirements and implementing mandatory entry-level training (MELT) programs for Class 1 drivers. Meanwhile, the trucking industry is facing a driver shortage and there are concerns that training costs and requirements could make it more difficult for people to enter the truck driving profession. The cost of insurance for commercial vehicles is also a consideration; carriers are likely to pay higher insurance premiums for new and/or inexperienced drivers.

The Insurance Bureau of Canada (IBC) engaged MNP LLP (MNP) to conduct a review and jurisdictional scan of commercial truck driver training in various Canadian and international jurisdictions to identify best practices and how changes in training requirements could contribute to road safety.

The aim of the study was to:

- Examine mandatory training and associated requirements for commercial truck drivers in Canada.
- Examine optional training and associated requirements for commercial truck drivers in Canada.
- Examine the factors contributing to road traffic accidents involving heavy trucks.
- Examine how education and training may improve road safety.
- Identify best practices for training commercial truck drivers.
- Identify how improvements in training and other factors that affect road safety could affect insurance premiums for commercial vehicles.

1.2 Scope

The scope of activities identified for this engagement include a review of academic literature, the engagement of Class 1 driver training stakeholders, and a cross-jurisdictional scan. The jurisdictions that were included in the study were Canadian provinces with competitive insurance markets as well as additional international jurisdictions, identified in collaboration with IBC. The in-scope Canadian jurisdictions were Alberta, New Brunswick, Nova Scotia, Newfoundland and Labrador, Ontario, Prince Edward Island, and the Territories. The additional research on international jurisdictions included: New South Wales (Australia), Norway, United Kingdom, and New Zealand.



1.3 Structure of the Report

The remaining sections of this report are organized as follows:

- Section 2 provides a description of the methodology used in conducting the study.
- Section 3 provides an overview of commercial trucking insurance and education in Canada.
- Section 4 provides an overview of the regulatory and training requirements in Canada.
- Section 5 provides an overview of the role training plays in accident prevention.
- Section 6 presents best practices for commercial truck driver training.
- Section 7 provides a summary of the study findings.

1.4 Report Limitations

This report is provided for information purposes and is intended for general guidance only. It should not be regarded as comprehensive or as a substitute for personalized, professional advice.

We have relied upon the completeness, accuracy, and fair presentation of all information and data obtained from key informant interviews, General Insurance Statistical Agency (GISA) and other public sources, believed to be reliable. The accuracy and reliability of the findings and opinions expressed in this document are conditional upon the completeness, accuracy, and fair presentation of the information underlying them. As a result, we caution readers not to rely upon any findings or opinions expressed for business or investment decisions and disclaim any liability to any party who relies upon them as such. Before taking any particular course of action, readers should contact their own professional advisor to discuss matters in the context of their particular situation.

Additionally, the findings and opinions expressed in the presentation constitute judgments as of the date of the presentation and are subject to change without notice. MNP is under no obligation to advise of any change brought to its attention which would alter those findings or opinions.



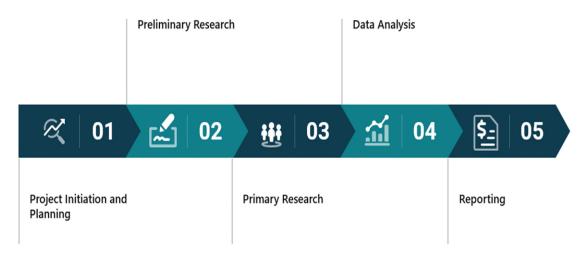
2.0 Methodology and Data Sources

2.1 Approach

Figure 1 outlines the approach used to undertake the development of this report. The steps were as follows:

- Conducted a review of commercial vehicle insurance industry data.
- Conducted a review of commercial vehicle training programs in Canadian jurisdictions and international jurisdictions identified by MNP and IBC.
- Engaged commercial vehicle training stakeholders to gather information on factors contributing to traffic accidents involving heavy trucks, how education and training may improve road safety, and best practices for training commercial truck drivers.
- Conducted a review of literature on the impact of training on road safety.
- Using the information collected identified best practices for truck driver training and how training could impact commercial vehicle insurance rates.
- Developed a draft report, gathered feedback from IBC, and incorporated that feedback into the final report.

Figure 1: Overview of the Study's Approach



Please note that the primary and secondary data for this study was collected between June 2023 and January 2024. Changes made after January 2024 are not covered in this report.



2.2 Data Sources

Table 1 outlines the main data sources used in the study. Additionally, throughout the report sources have been referenced in footnotes and captions.

Table 1. Data Sources

Data	Source
Training and Education in Canadian Jurisdictions	Government websites, Acts, Regulations, standards, and policies
Stakeholder Perceptions	Interviews with insurers, industry associations, and commercial vehicle training provider
Insurance Claims and Premium Data	General Insurance Statistical Agency



3.0 Overview of Commercial Trucking Insurance and Education in Canada

This section of the report provides an overview of insurance for heavy trucks, including trends as they relate to accident rates and insurance premiums. In developing this overview, MNP conducted a review of industry data from tort-based jurisdictions, ⁴ literature, and interviews with industry representatives providing commercial vehicle insurance and education for commercial drivers.

Text Box 1: What is a Class 1 Licence

Class 1 licence is required for drivers of tractor trailers. Holders of a Class 1 licence can drive any vehicle. In Ontario it is called a Class A licence.

The industry data presented within this section is for commercial vehicles in the classes listed in Table 2. These classes would include vehicles for which drivers would require a Class 1 licence. However, it is important to note that not all vehicles in each class would require a Class 1 licence. For example, the driver of a straight truck hauling a load of sand would not require a Class 1 licence, but the driver of a tractor trailer being used to haul sand would require a Class 1 licence. Each class contains a reference number, which aligns with the source data and is used to reference vehicle classes within figures in this section.

Table 2: Commercial Vehicle Classes

Class	Description
Class 41	Chip Hauling (wood), Logging Trucks
Class 42	Gravel, Sand, Stone, Earth
Class 44	Wholesale Delivery not otherwise classified (N.O.C) - Heavy; Bakeries, Dairies, Ice Cream, Soft Drinks, Cleaners, Dyers, Laundries, Valets - Light; Public Service, Emergency and N.O.C Heavy; Contractors N.O.C Heavy; Coal and Wood Dealers
Class 45	Retail Delivery N.O.C Heavy including Butchers, Drugstores, Grocers, Hardware, Bakeries, Dairies, Dyers, Cleaners, Ice Cream, Soft Drinks, etc.; Breweries and Cement Mixers.
Class 46	Trucking up to 25 miles including Brick, Building Blocks, Furniture, Livestock, Safe and Steel Mfrs. and Dealers, Wholesale Fruit etc., Dealers
Class 48	Explosives, Radioactive Material and Petroleum Products
Class 49	Truckmen N.O.C. – Operating within 80Km radius

Source: GISA 1502 Exhibits

⁴ Specifically, this includes Alberta, New Brunswick, Nova Scotia, Newfoundland and Labrador, Ontario, Prince Edward Island and the Territories. Quebec has not been included in the data presented here as it operates a no-fault system and comparable data were not available.



The types of commercial vehicles that were excluded are light duty vehicles used for commercial purposes (e.g., contractors, greenhouse operators, artisans, horticulturists, landscapers and market gardeners, farm trucks and fishermen, and wholesale delivery), vehicles used by first responders (e.g., police and fire), unlicensed vehicles (e.g., farm tractors, dock station and industrial trucks) and vehicles used for road construction, oil drilling and exploration, etc.

Additionally, the analysis of industry data presented within this section references driving records. Descriptions of each driving record are provided in Table 3. Please note that drivers with less than six years experience and no claims would be included in the driving record that corresponds to their level of experience.

Table 3: Driving Records

Driving Record	Description
Driving record 0	Less than one year of experience without a claim
Driving record 1	One year of experience without a claim
Driving record 2	Two years of experience without a claim
Driving record 3	Three years of experience without a claim
Driving record 4	Four years of experience without a claim
Driving record 5	Five years of experience without a claim
Driving record 6	Six years of experience without a claim

Source: GISA 1502 Exhibits

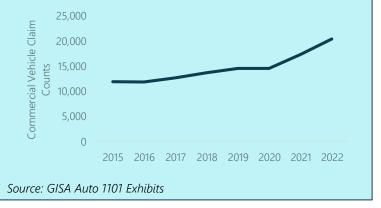
As with vehicle classes, the driving record numbers align with the source data and are used to reference driving records within figures in this section.

The data presented here represents between 15 percent and 17 percent of commercial vehicles insured in the tort jurisdictions included in the study and between 40 percent and 43 percent of commercial third-party liability premiums. Text Box 2 summarizes trends in claims for all commercial vehicles.

The industry data presented is based on premiums, expenses, and claims data for third-party liability and collision coverage. Third-party liability

Text Box 2: Trends in Claims for All Commercial Vehicles

The number of claims for all commercial vehicles in the jurisdictions observed has increased significantly faster than the number of commercial vehicles on the road between 2016 and 2022. This suggests that accident rates are increasing for commercial vehicles.



provides coverage for damage and injuries caused by the insured, while collision coverage is for repair of



damage to the insured's vehicle arising from an accident for which the insured is at-fault. Consequently, these coverages are most representative of claims resulting from driver error.

All industry data presented in figures 2 through 21 are based on MNP's analysis of industry data collected from GISA 1502 exhibits with a publishing date of 2016, 2021, and 2022. Additionally, almost all industry data presented in figures 2 through 21 includes individually rated and fleet rated vehicles on a per vehicle basis. Industry data presented, that is inclusive of driver level, is only based on individually rated vehicles, as driver level is not available for fleet rated vehicles. Readers should also note that data presented in the following sections does not have loss development factors applied to it. The number and amount paid in claims can take multiple years to be fully realized; therefore, values for the most recent years presented do not represent all claims and claims expenses to be experienced within the year.

3.1 Trends in Accident Rates

Alberta has the highest third-party liability claims frequency, followed by Ontario and the Atlantic provinces. From 2012 to 2019, third-party liability claims frequency declined in Alberta and the Atlantic provinces. In 2020 and 2021, during the COVID-19 pandemic, frequency declined significantly in all provinces (Figure 2). At present it is not clear if frequency will return to pre-pandemic levels.

3.5 COVID-19 Claims Frequency per 100 Vehicles **Pandemic** 3.0 2.5 2.0 1.5 1.0 0.5 0.0 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 •Alberta Ontario Atlantic Provinces

Figure 2: Frequency of Third-Party Liability Claims Per 100 Earned Commercial Vehicles by Jurisdiction

Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

Prior to the pandemic collision claims frequency per 100 vehicles in Alberta was decreasing but was higher than that in Ontario and the Atlantic provinces (Figure 3). In 2020, frequency declined in all jurisdictions. In 2021, Ontario and the Atlantic Provinces had increases in collision claims frequency relative to 2020 while the collision claims frequency in Alberta was relatively stable.



3.0 COVID-19 Claims Frequency per 100 Vehicles **Pandemic** 2.5 2.0 1.5 1.0 0.5 0.0 2012 2013 2014 2016 2017 2018 2019 2020 2021 2022 2015 - Alberta Ontario Atlantic Provinces

Figure 3: Frequency of Collision Claims Per 100 Earned Commercial Vehicles by Jurisdiction

Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

When comparing driver record to third-party liability claims frequency from 2012 to 2022, a longer period without a claim is correlated with a lower claims frequency per 100 vehicles (Figure 4). From 2020 to 2022, the claims frequency for drivers with a recent claim (e.g., within one year) was significantly lower than between 2012 and 2019. It is important to note that during this period there were a number of public health restrictions in place that reduced the amount of traffic on the road, and this may have affected collision frequency.

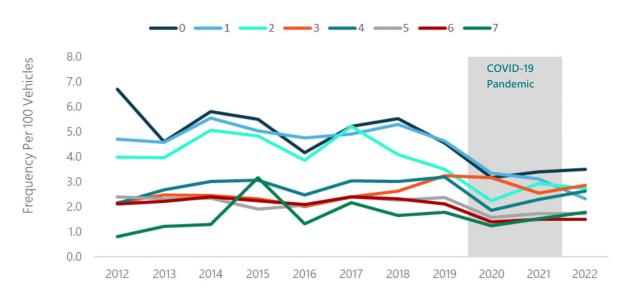


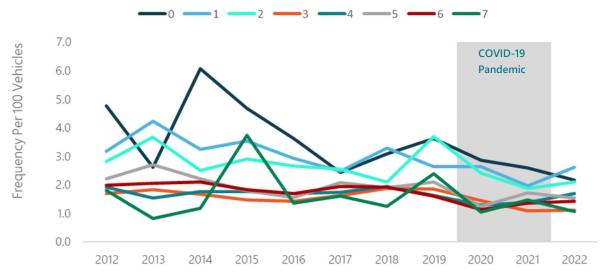
Figure 4: Frequency of Third-Party Liability Claims Per 100 Earned Commercial Vehicles by Driving Record

Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.



When comparing driver record to collision claims frequency from 2012 to 2022, similar trends are observed. Generally, a longer period of experience without a claim, correlates with a lower claims frequency per 100 vehicles (Figure 5).

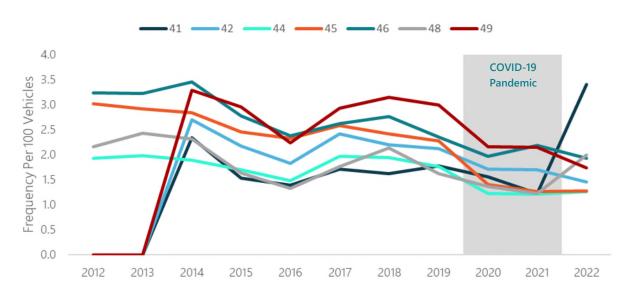
Figure 5: Frequency of Collision Claims Per 100 Earned Commercial Vehicles by Driving Record



Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

When comparing vehicle class to third-party liability claims frequency from 2012 to 2022, classes 42 (gravel, sand, stone and earth), 45 (retail delivery N.O.C.), 46 (trucking up to 25 miles), and 49 (truckmen N.O.C; operating within 80Km radius) had higher claims frequencies than vehicle classes 41 (chip hauling and logging trucks), 44 (wholesale delivery N.O.C, heavy contractors N.O.C, heavy coal and wood dealers N.O.C), and 48 (explosives, radioactive material, and petroleum products) (Figure 6).

Figure 6: Frequency of Third-Party Liability Claims Per 100 Earned Commercial Vehicles by Vehicle Class



Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

When comparing vehicle class collision claims frequency from 2012 to 2022, the same trends are



observed, with vehicle classes 42 (gravel, sand, stone and earth), 45 (retail delivery N.O.C.), 46 (trucking up to 25 miles), and 49 (truckmen N.O.C; operating within 80Km radius) experiencing higher claims frequencies than vehicle classes 41 (chip hauling and logging trucks), 44 (wholesale delivery N.O.C, heavy contractors N.O.C, heavy coal and wood dealers N.O.C), and 48 (explosives, radioactive material, and petroleum products) (Figure 7). This is likely related to where these vehicles are operated. Classes 42, 45, 46, and 49 would be more likely to be operated in urban areas where there are higher levels of congestion.

-46 ----42 **45** 4.5 COVID-19 4.0 Frequency Per 100 Vehicles **Pandemic** 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 2014 2012 2013 2015 2016 2017 2018 2019 2020 2021 2022

Figure 7: Frequency of Collision Claims Per 100 Earned Commercial Vehicles by Vehicle Class

Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

From 2012 to 2019, the severity of third-party liability claims fluctuated (Figure 8). In 2020 and 2021 severity declined in some jurisdictions and increased in others.

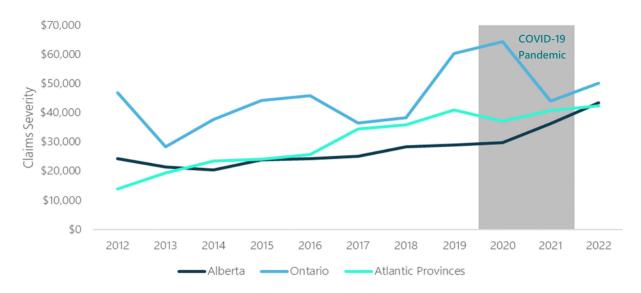


Figure 8: Severity of Third-Party Liability Claims by Jurisdiction

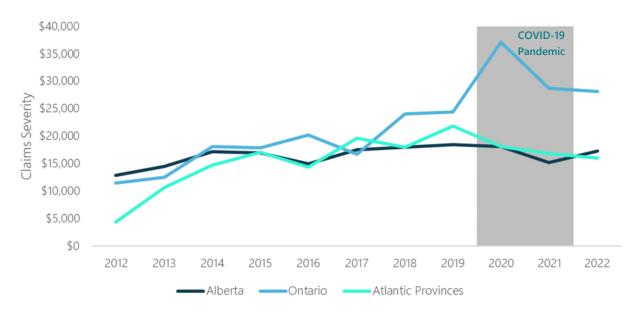
Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

From 2012 to 2019, collision claims severity was increasing in most jurisdictions (Figure 9). Severity



declined in most jurisdictions during the pandemic.

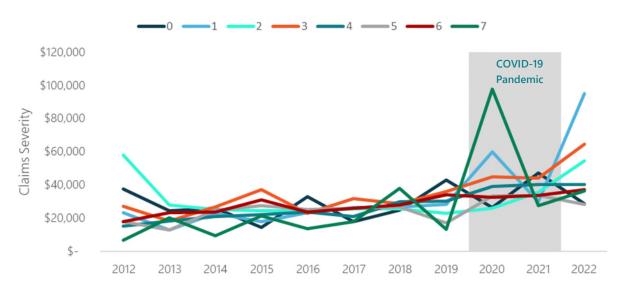
Figure 9: Severity of Collision Claims by Jurisdiction



Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

When comparing driver record to the severity of third-party liability claims from 2012 to 2022, almost all driver classes exhibited slight increases in claims severity (Figure 10). In 2022, drivers with 1, 2, or 3 years of experience without a claim exhibited the lowest claims severity for third-party liability, while drivers with 0, 4, 5, 6 or 7 years of experience without a claim had the highest claims severity.

Figure 10: Severity of Third-Party Liability Claims for Commercial Vehicles by Driving Record



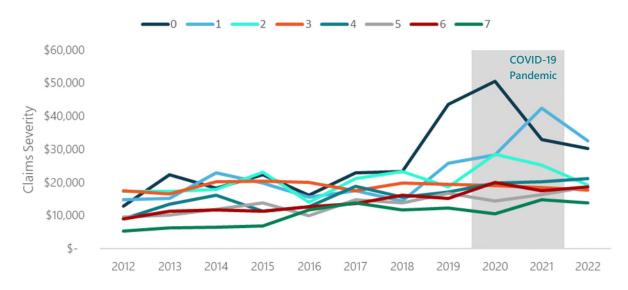
Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

When comparing driver record to the severity of collision claims from 2012 to 2022, almost all driver classes exhibited slight increases in claims severity (Figure 11). Driver classes are correlated with collision claims severity, with the lowest driver driving records exhibiting the highest severity levels throughout the



reporting period.

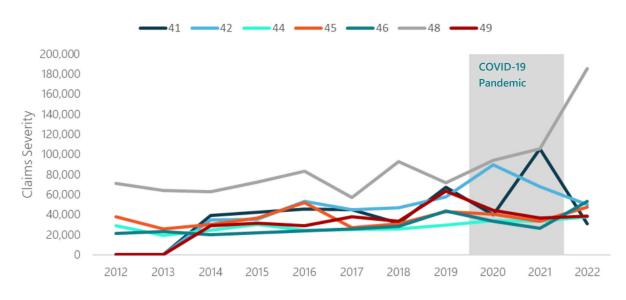
Figure 11: Severity of Collision Liability Claims for Commercial Vehicles by Driving Record



Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

When comparing vehicle class to third-party liability claims severity from 2012 to 2022, vehicle classes 41 (chip hauling and logging trucks), 42 (gravel, sand, stone, and earth), and 48 (explosives, radioactive material, and petroleum products) tended to have higher claim severities than other vehicle classes (Figure 12).

Figure 12: Severity of Third-Party Liability Claims for Commercial Vehicles by Vehicle Class



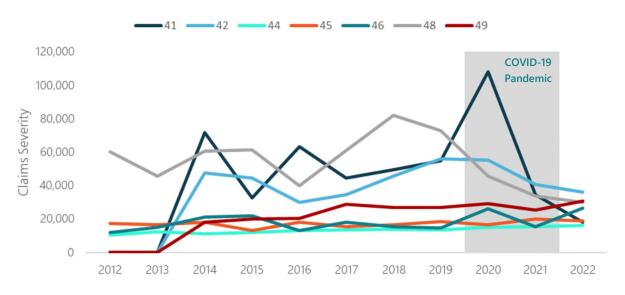
Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

When comparing vehicle class to collision claims severity from 2012 to 2022, similar trends are observed with vehicle classes 41 (chip hauling and logging trucks), 42 (gravel, sand, stone, and earth), and 48 (explosives, radioactive material, and petroleum products) exhibiting larger claims severities than other



vehicle classes (Figure 13).

Figure 13: Severity of Collision Claims for Commercial Vehicles by Vehicle Class



Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

Key Observations in Accident Trends

- From 2012 to 2020 frequency in third-party liability claims exhibited a downward trend. Between 2020 and 2022 the frequency in third-party liability claims remained relatively constant, with increases noted in Alberta. Frequency for collisions claims appears to have remained consistent over the reporting period when monitoring all jurisdictions collectively.
- Trends in frequency for the selected classes of vehicles may differ from those for commercial vehicles overall. There is some indication that the number of claims for commercial vehicles has increased faster than the number of commercial vehicles on the road.
- The severity of third-party liability claims remained relatively consistent year-over-year, while the severity of collision claims over the reporting period is increasing.
- Severity tends to be higher for trucks with heavier loads (e.g., logs, sand and gravel) or carrying dangerous goods.
- Driver experience and/or the length of time since a previous claim is correlated with claim frequency and severity.



3.2 What We Heard about Trends in Accident Rates for Commercial Vehicles

Interviews with commercial automobile insurance/telematics companies and trucking associations reported the following observations and trends related to accident rates:

- Young and/or inexperienced drivers tend to have higher frequency and severity of
 accidents. Interviewees reported higher levels of risk with drivers with less than three years of
 experience and/or drivers under the age of twenty-five. This means that policies for these drivers
 are more likely to be provided through the residual market, which provides insurance for those
 unable to obtain it through other channels.
- **Higher traffic volumes and congestion on roadways increases risk.** Increases in roadway congestion and traffic tends to increase collisions and claims for commercial vehicles.
- Accident severity is higher in rural areas. Rural areas were noted by interviewees as being areas
 where the severity of commercial vehicle claims is high, when compared to claims from urban
 based collisions. Drivers can reach greater speeds on rural roads which can translate into more
 severe collisions when compared to urban settings.
- Accident frequency is higher in urban areas. Collisions in urban areas tend to occur more frequently due to a higher level of activity (e.g., traffic, intersections, pedestrians, cyclists, etc.).
- **Distracted driving significantly increases risk.** Distracted driving (e.g., mobile phone use) was identified by interviewees as a leading cause of commercial vehicle claims and collisions.
- Time constraints increase risk. Due to the nature of commercial transportation, drivers face pressures, both with regulated limits to driving hours and deadlines for delivery of goods. Interviewees indicated that the pressure of meeting deadlines, while abiding by regulations, increases risk and instances of collisions and claims.
- Winter driving conditions are a significant risk factor, particularly in Western Canada. Winter weather can give rise to dangerous driving conditions that increase the risk of accidents. This challenge is particularly acute in the western provinces, with interviewees noting that such weather can be a major cause of accidents in these regions. Inclement weather, combined with other factors such as time constraints or driver inexperience with Canadian winter driving conditions, compounds the risk of accidents.
- A minority of drivers account for the majority of claims. One interviewee indicated that their analytics show 95 percent of their losses come from the bottom quartile drivers, noting they are by far the poorest performers in terms of claims and safety.
- Credit score is strongly correlated with risk in commercial trucking. One interviewee noted
 that credit score is a useful rating variable for pricing commercial truck drivers. The rationale for
 this is that people who are more responsible financially tend to take fewer risks and this makes
 them better drivers.



3.3 Trends in Insurance Premiums

From 2012 to 2019, the value of claims and adjustment expenses incurred trended upwards in most jurisdictions (Figure 14). This is a reflection of the increases in severity. In 2020 and 2021 claims and adjustment expenses declined as frequency declined during the pandemic. In 2022, claims and adjustment expenses increased in all jurisdictions.

160,000,000 COVID-19 oss and Adjustment Expenses (\$) 140,000,000 **Pandemic** 120,000,000 100,000,000 80,000,000 60,000,000 40,000,000 20,000,000 0 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 Alberta Ontario Atlantic Provinces

Figure 14: Incurred Claims and Adjustment Expenses for Third-Party Liability Claims

Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

Similar to third-party liability, incurred collision claims and adjustment expenses in all jurisdictions from 2012 to 2019 display an upward trend, with the exception of Alberta (Figure 15). This is a reflection of the increase in severity. In 2020 and 2021 claims and adjustment expenses declined in some jurisdictions and increased in others. In 2022, claims and adjustment expenses increased in all jurisdictions.



Figure 15: Incurred Claims and Adjustment Expenses for Collision Claims by Jurisdiction

Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

Ontario and Alberta have higher premiums than in the Atlantic Provinces (Figure 16). While average



premiums for third-party liability increased in all jurisdictions from 2012 to 2021, premiums in Ontario increased more quickly than in other jurisdictions.

\$2,500 COVID-19 **Pandemic** \$2,000 Average Premiums \$1,500 \$1,000 \$500 \$-2013 2018 2022 2012 2014 2015 2016 2017 2019 2020 2021 Alberta Ontario Atlantic Provinces

Figure 16: Average Premiums for Third-Party Liability by Jurisdiction

Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

Average premiums for collision in all jurisdictions rose from 2012 to 2022 (Figure 17). As with average premiums for third-party liability, Ontario experienced a much larger increase than any other jurisdiction.

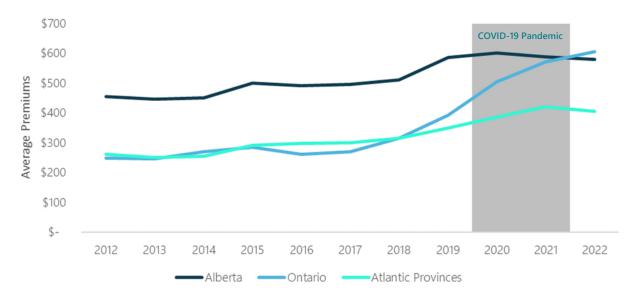


Figure 17: Average Premiums for Collision by Jurisdiction

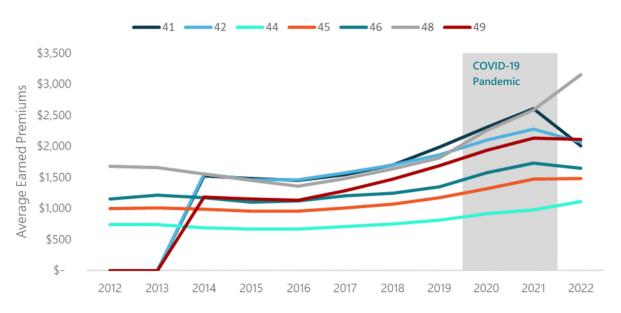
Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

Vehicle classes 41 (chip hauling and logging trucks), 42 (gravel, sand, stone, and earth), 48 (explosives, radioactive material, and petroleum products), and 49 (truckmen N.O.C; operating within 80Km radius) tend to have higher premiums than other classes (Figure 18). This is in part a reflection of the higher severity associated with claims involving these vehicles. Between 2016 and 2022 average premiums



increased more quickly than prior to 2016.

Figure 18: Average Premiums for Third-Party Liability by Vehicle Class



Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

Average premiums for collision by vehicle class from 2012 to 2022 exhibit trends similar to those of third-party liability. Classes 41 (chip hauling and logging trucks), 42 (gravel, sand, stone, and earth), and 48 (explosives, radioactive material, and petroleum products) have higher premiums than other classes (Figure 19). Average premiums for class 41 (chip hauling and logging trucks), have increased significantly since 2017.

Figure 19: Average Premiums for Collision by Vehicle Class



Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

Average premiums for third-party liability tend to be lower for drivers with more experience or elapsed years since a claim (Figure 20). Drivers with less than three years experience and/or less than three years



without a claim, pay significantly higher premiums than drivers with three or more years without a claim. From 2012 to 2022, drivers with less than three years experience and/or less than three years without a claim experienced much larger increases in premiums when compared to driver with longer periods without a claim.

\$6,000 COVID-19 Average Earned Premiums **Pandemic** \$5,000 \$4,000 \$3,000 \$2,000 \$1,000 \$-2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Figure 20: Average Premiums for Third-Party Liability by Driver Level

Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.

As with third-party liability, drivers with less than three years experience and/or less than three years without a claim pay significantly higher premiums for collision coverage than drivers with three or more years without a claim.

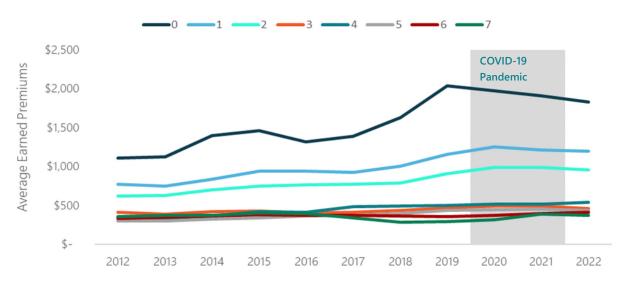


Figure 21: Average Premiums for Collision by Driver Level

Source: GISA 1502 exhibits published 2016, 2021, 2022 for Alberta, Ontario, and the Atlantic provinces.



Key Observations in Premium Trends

- Claims and adjustment expenses for both third-party liability and collision coverages have been increasing.
- Premiums are highly correlated with the frequency and severity of claims. Drivers with less than three years' experience and/or less than three years without a claim, pay significantly higher premiums than drivers with three or more years' experience or elapsed years since a claim. There is some indication that premiums for drivers with less experience or claims within three years are increasing at a faster rate than drivers with more than three years without a claim.
- Trucks with heavier loads (e.g., logs, sand and gravel) or carrying dangerous goods tend to have higher premiums.

3.4 What We Heard about Trends in Insurance Premiums for Commercial Vehicles

Interviewees reported the following challenges related to insurance premiums:

- Premiums are higher for young and/or inexperienced drivers. Interviewees reported that in some instances there is less appetite from insurers to provide coverage for drivers with less than three years of experience and/or drivers under the age of twenty-five. As a result, policies involving these drivers are more likely to be provided through the residual market.
- Cross border risks create exposure to "Nuclear Jury Verdicts." Varying regulations in each jurisdiction and increased frequency of interurban travel and travel to other jurisdictions is resulting in less certainty with claim amounts and exposure to significant jury verdicts in the United States. Consequently, premiums for vehicles travelling outside of Canada are increasing. Interviewees identified this as a concern for all Canadian jurisdictions, but it was of particular concern in Alberta.
- The risks associated with different commodities vary and this impacts the level of liability coverage. Accidents involving heavy loads or dangerous goods tend to have higher severities and the potential for greater damage. As a result, the level of liability coverage required increases when these goods are being transported and this increases premiums.



4.0 Operating Environment

4.1 Regulatory Environments in Canada

This section provides a summary of the regulatory environments for both commercial vehicle operation and truck driver training within the jurisdictions studied.

Regulatory Environment for Vehicle Operation

Federal and Provincial Responsibilities

The federal government, provinces and territories are jointly responsible for regulating commercial vehicles.⁵ The federal government is responsible for vehicles that carry goods or passengers across a provincial or international boundary ("extra-provincial carriers"), while the provinces and territories are responsible for vehicles operating within their boundaries. The provinces and territories are also responsible for the enforcement of two federal regulations for extra-provincial carriers on behalf of the federal government:

- Motor Carrier Safety Fitness Certificate Regulations, which requires extra-provincial carriers to obtain a safety fitness certificate before they may operate on Canadian highways.
- Commercial Vehicle Drivers Hours of Service Regulations, which sets the hours of work and rest rules for drivers of federally regulated vehicles.

National Safety Code Standards

The National Safety Code (NSC) Standards is a set of 16 standards that provide minimum operational and performance requirements for the safe operation of commercial vehicles. It applies to buses with a seating capacity of 10 or more and trucks with Registered Gross Vehicle weight of 4,500 kg or more.⁶ Each jurisdiction is encouraged to use the NSC standards as guides in drafting their own transportation safety regulations.⁷

Most NSC standards have been implemented through regulation or legislation in the provinces studied.⁸ Table 4 outlines the sections of the NSC related to the Motor Carrier Safety Fitness Certificate Regulations, Commercial Vehicle Drivers Hours of Service and safety inspections. The three standards related to the Motor Carrier Safety Fitness Certificate Regulations have been adopted by all provinces and territories for

⁵ Multi-Modal & Road Safety Programs, Transport Canada. Commercial vehicles safety in Canada 2012-2018. Government of Canada. October 2021. https://tc.canada.ca/en/road-transportation/motor-vehicle-safety/motor-carriers-commercial-vehicles-drivers/commercial-vehicles-safety-canada.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.



all commercial vehicles (i.e., private/for-hire, extra and intra-provincial) so that safety ratings and performance standards are consistent across jurisdictions.⁹

Table 4: NSC Standard Implementation in Canadian Jurisdictions Studied

Motor Carrier Safety Fitness Certificate Regulations ¹⁰						
7 – Carrier and Driver Profiles	All provinces create and maintain carrier and driver profiles according to the federal Motor Vehicle Transport Act. The profiles provide jurisdictions with a record of driver and carrier performance in terms of compliance with safety regulations.					
14 – Safety Rating	Implemented federally with matching rules in the provinces. Establishes the motor carrier safety rating framework by which each jurisdiction assesses the safety performance of motor carriers.					
15 – Facility Audits	Implemented federally with matching rules in the provinces. Outlines the audit process used to determine a carrier's level of compliance with all applicable safety standards.					
Commercial Vehicle I	Drivers Hours of Service Regulations					
9 – Hours of Service	Provinces have largely adopted hours of service regulations which match the federal Commercial Vehicle Drivers Hours of Service Regulations. Exceptions include: • Alberta, which has different mandatory off-duty time and its intra-provincial regulations do not mention cycles. • Since 2021, federally regulated commercial drivers have been mandated to use electronic logging devices. Alberta is the only jurisdiction within the study's scope that has yet to implement this requirement for intra-provincial drivers. ¹¹					
Inspections						
11 – Periodic Motor Vehicle Inspection	Each carrier must set up a system of preventative vehicle inspection, maintenance, and repair for every truck and trailer it operates. Yearly inspections are required at an approved inspection facility. All Canadian jurisdictions agreed to adopt the same standard for inspections, and so inspections from one jurisdiction are recognized in other jurisdictions.					
12 – CVSA On-Road Inspections	All provinces are members of the Commercial Vehicle Safety Alliance (CVSA), which has on-road inspection procedures as per NSC 12. A vehicle may be stopped at any time by an enforcement officer for a CVSA on-road inspection.					
13 – Trip Inspection	All provinces require daily vehicle trip inspections.					

Penalties and Intervention Methods

Penalties and intervention methods vary among the provinces.¹² Drivers violating hours of service rules may be subject to varying levels of monetary or other types of penalties including being placed out of service for a period. Vehicles found to be unroadworthy may be impounded, or fines may be issued for

⁹ Multi-Modal & Road Safety Programs, Transport Canada. Commercial vehicles safety in Canada 2012-2018.

¹⁰ Ibid.

¹¹ Overdrive. "Canadian ELD mandate: Intra-provincial enforcement, with two notable exceptions". September 15, 2023. https://www.overdriveonline.com/electronic-logging-devices/article/15634363/canadian-eld-mandate-in-play-for-most-inprovinceonly-truckers. Accessed February 12, 2024.

¹² Multi-Modal & Road Safety Programs, Transport Canada. Commercial vehicles safety in Canada 2012-2018.



non-adherence to maintenance standards. In all cases, hours of service, vehicle maintenance, and all other transportation-related violations are recorded on the carrier and driver profiles.

Intervention methods largely consist of a graduated approach based on the status of the carrier and driver profiles and are aimed at bringing violators back to compliance. This includes warning letters, inspections, audits, interviews, and hearings, which may then lead to penalties including issuance of conditions, permit cancellations, downgrading of safety fitness ratings, suspending or cancelling safety fitness certificates, suspension of the vehicle registration, suspension of the class of licence, suspension of the licence plate(s), suspension of the vehicle or vehicles, summary offence tickets, etc. Immediate intervention occurs for critical events.¹³

Vehicle Inspection Pass Rates

Commercial Vehicle Safety Alliance (CVSA) On-Road Inspections

Roadside inspection of commercial vehicle drivers and vehicles has been found to improve safety and compliance rates.¹⁴ These inspections are done at the roadside, weigh scales and motor carrier facilities following the *North American Standard Inspection Program*. Targets for the number of inspections in each province were removed in fiscal year 2008/09 at the request of the provinces and territories. Prior to this, provinces and territories were generally exceeding the targets. As shown in Figure 22, following the removal of targets the total number of inspections remained high.

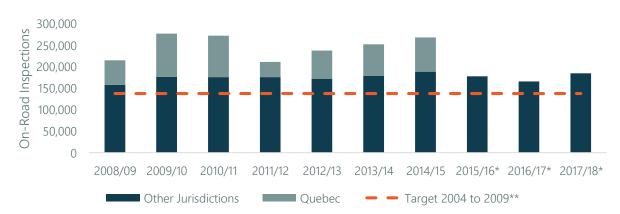


Figure 22: CVSA On-Road Inspections, Selected Jurisdictions. 2008/09 to 2017/18¹⁵

*Data for Quebec were not available

While inspection remained high, audits of the enforcement of safety violations that reviewed the same period as the data presented in Figure 22 in Ontario and Alberta found that in both provinces, safety enforcement was inadequate.¹⁶ In Alberta, timely and appropriate enforcement action was not being

¹⁴ Ibid.

¹³ Ibid.

¹⁵ Ibid.

¹⁶ Auditor General of Alberta. Alberta Transportation Commercial Vehicle Safety. Follow-up Performance Audit. February 2018. https://www.oag.ab.ca/wp-content/uploads/2020/05/TR_PA_Feb2018commercial-vehicle-ExecSummary.pdf and



consistently taken against non-compliant carriers. However, as of 2021, a subsequent audit found that Alberta had taken steps to consistently comply with its policy by implementing recommendations for disciplinary and enforcement actions against non-compliant carriers.¹⁷ In Ontario, there were not effective and efficient programs for promoting and enforcing the safety requirements for commercial vehicles. As of 2021, the Ontario Ministry of Transportation reported that it had made some progress (i.e., full implementation of 18 percent of the recommended actions from the 2019 Annual Report) towards implementing the Auditor General's recommendations for improving the effectiveness and efficiency of programs that promote and enforce safety requirements for commercial vehicles.¹⁸ Information on the effectiveness of enforcement in the other provinces and territories over the period was not found as part of our literature review.

Roadcheck

Roadcheck is a 72-hour safety inspection program undertaken annually to promote safety. Heavy vehicles are randomly selected for inspection of brakes, steering, wheels, tires, frames, and the manner in which loads are secured are inspected. As part of the inspection driver documentation for compliance with licensing and hours of service rules is also checked. It is important to note that vehicles displaying a valid CVSA decal are not inspected as part of Roadcheck. Consequently, the results should not be interpreted as being representative of the whole population of commercial vehicles.

Figure 23 shows the percentage of vehicles that were found to have at least one violation in Roadcheck inspections between 2012 and 2017 by province. Out-of-service violation rates for Alberta were highest, at above 30 percent. Overall, approximately 20 percent of vehicles were found to have at least one out-of-service violation.

Office of the Auditor General of Ontario. Volume 1, Chapter 3.04 – Commercial Vehicle Safety and Enforcement, 2018-19 Value-for-Money Audit. https://www.auditor.on.ca/en/content/news/19_summaries/2019AR_summary_v1_3.04.pdf

¹⁷ Auditor General of Alberta. Alberta Transportation Commercial Vehicle Safety. Assessment of Implementation Report. June 2021. https://www.oaq.ab.ca/wp-content/uploads/2023/06/2021-commercial-vehicle-safety-aoi.pdf

¹⁸ Ministry of Transportation. Commercial Vehicle Safety and Enforcement. Follow-Up on VFM Section 3.04, 2019 Annual Report. https://www.auditor.on.ca/en/content/annualreports/arreports/en21/1-04CommercialVehicleSafety_en21.pdf



Figure 23: Roadcheck Out-of-service Rates for Vehicles, 2012 to 2017¹⁹

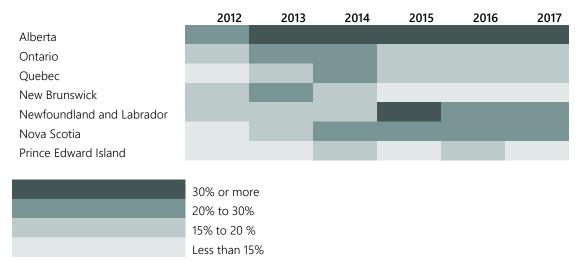
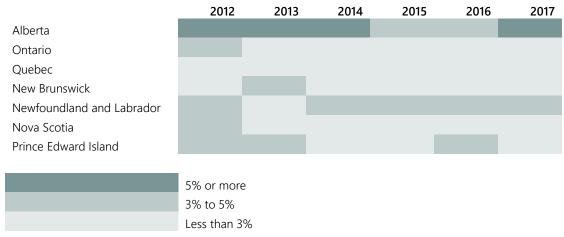


Figure 24 shows the percentage of drivers that were found to have at-least one violation in Roadcheck inspections between 2012 and 2017. Alberta had the highest percentage of drivers with violations at over five percent, while in most other provinces rates were less than three percent over the period.

Figure 24: Roadcheck Out-of-service Rates for Drivers, 2012 to 2017²⁰



Data by province were not available between 2018 to 2023. However, data for Canada reported by the CVSA indicates that 20.5 percent of vehicles and 3.2 percent of drivers were found to have at least one violation in 2023 and this was consistent with rates in previous years.²¹ This suggests that rates have remained relatively stable since the 2012 to 2017 period.

¹⁹ Multi-Modal & Road Safety Programs, Transport Canada. Commercial vehicles safety in Canada 2012-2018

²⁰ Multi-Modal & Road Safety Programs, Transport Canada. Commercial vehicles safety in Canada 2012-2018

²¹ CVSA. CVSA Releases 2023 International Roadcheck Results. July 31, 2023



Facility Audits

Facility audits are conducted to assess a carrier's compliance with safety standards. The results and information in the carrier profile are used to determine the carrier's safety rating. Procedures for facility audits are outlined in NSC 15.

Facility audits have been found to improve safety and compliance rates.²² Prior to fiscal 2009/10 Transport Canada included minimum targets for audits in contribution agreements with the provinces and territories. As of fiscal 2009/10 minimum audit requirements were removed, as were reporting requirements of the number of audits conducted on intra-provincial motor carriers. As shown in Table 5, there was some indication of reductions in the number of audits in Newfoundland and Labrador beginning in 2014/15 and Ontario beginning in 2015/16. Due to changes in the reporting requirements, it is not possible to compare the number of audits prior to the changes with the number of audits after the changes.

Table 5: Facility Audits Conducted by Canadian Jurisdictions Studied²³

Province	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Alberta	182	395	377	368	339	318	319	347	323
Ontario	237	200	211	269	248	278	175	152	158
Quebec	92	229	99	69	103	88	N	ot availab	le
New Brunswick	65	94	98	155	113	61	93	47	76
Newfoundland and Labrador	2	1	22	20	21	3	3	3	3
Nova Scotia	31	12	25	7	17	26	43	36	17
Prince Edward Island	13	13	13	13	13	13	13	13	13

²² Multi-Modal & Road Safety Programs, Transport Canada. Commercial vehicles safety in Canada 2012-2018.

²³ Multi-Modal & Road Safety Programs, Transport Canada. Commercial vehicles safety in Canada 2012-2018.



Key Observations Across the Regulatory Environment for Vehicle Operation

- Commercial vehicle safety in Canada is a joint federal, provincial, and territorial responsibility. The provinces and territories have sole responsibility for intra-provincial operations. The federal government has authority over extra-provincial carriers that carry goods or passengers across a provincial or international boundary.
- Most NSC standards have been implemented in the jurisdictions studied. Standards related to the Motor Carrier Safety Fitness Certificate Regulations have been adopted so that safety ratings and performance standards are consistent across jurisdictions. Most jurisdictions have also adopted hours of service standards and inspection standards.
- Penalties and intervention methods vary among the provinces. Intervention methods largely consist of a graduated approach based on the status of the carrier and driver profiles and are aimed at bringing violators back to compliance.
- Roadside inspections and facility audits have positive impacts on safety and compliance rates. Although the jurisdictions are no longer required to meet minimum targets for roadside inspections and facility audits, inspection and audit numbers have remained mostly stable, with exceptions in Ontario and Newfoundland and Labrador, where some decreasing trends in facility audits have been seen.
- There is some indication that enforcement of violations may be inadequate. Reviews by the Auditor Generals in Alberta and Ontario found that enforcement of safety violations was inadequate as recently as 2018. Since then Alberta has implemented the recommendations to become compliant, while Ontario has implemented some of the recommendations.



4.2 Regulatory Environment for Training

NSC Standard 16 covers Commercial Truck Driver Entry Level Training. As of September 2023, five jurisdictions in Canada have MELT and the remainder have voluntary programs. Of the seven provinces and three territories included in this study, three have mandatory training.

As previously noted, data for this study was collected between June 2023 and January 2024. Changes to the training programs made after January 2024 are not covered in this report.

Alberta²⁴

Effective March 1, 2019, all new Class 1 drivers were required to complete MELT.²⁵ Driver training schools offering MELT must be licensed by the Government of Alberta and all MELT training must follow the Government of Alberta curriculum and standards in the *Licensed Driver Training School Procedures Manual* developed by the Alberta Ministry of Transportation and Economic Corridors (Ministry).²⁶ The Government of Alberta curriculum is the minimum and includes 113 hours of training, plus 8.5 hours for air brakes. Driver training schools may include additional hours or materials.²⁷ The Ministry conducts ongoing monitoring and regular audits of schools.

Ontario

Ontario was the first province to implement mandatory entry-level training, on July 1, 2017.²⁸ Standards for Entry-Level Training (ELT) are set by the Ontario Ministry of Transportation (MTO) and include a minimum of 103.5 hours of instruction. Enforcement of the standards set by the MTO is the responsibility of the Ontario Ministry of Colleges and Universities. Driver training schools may extend the program beyond the hours specified for ELT.

A review of the program was completed in 2021 which found that there are concerns that the program does not adequately address winter driving, and that oversight of schools is ineffective.²⁹

²⁴ Please note that this report was finalized prior to the announcement from the Alberta government on March 27, 2024 regarding modifications to their MELT program, including changes to instruction hours.

²⁵ Government of Alberta. Justice and Solicitor General. New Driver Training and Testing Requirements. February 26, 2019. https://open.alberta.ca/dataset/f93f4d2d-7925-4372-9eb1-47a8afbb55a0/resource/4d77101f-4fcb-4a37-a862-2649274e5744/download/jsg-peace-officer-bulletin-04-2019.pdf

²⁶ Government of Alberta. Licenced Driver Training School: Policies and Procedures. September 2022. https://open.alberta.ca/dataset/00548216-e80b-4a26-bcd2-520260bc270e/resource/f28c7e1f-de3e-429a-8a68-cd6273616be8/download/trans-licenced-driver-training-school-policies-and-procedures-2022-09.pdf ²⁷ Ibid.

²⁸ Government of Ontario Newsroom. Ontario First in Canada to Introduce Mandatory Entry-Level Training for Class A Truck Drivers. June 28, 2016. https://news.ontario.ca/en/bulletin/40926/ontario-first-in-canada-to-introduce-mandatory-entry-level-training-for-class-a-truck-drivers

²⁹ Sarah C. Plonka, Patrick A. Byrne, Ian Sinclair, Serena Tran, Yoassry Elzohairy. Evaluation of Ontario's Mandatory Entry Level Training Program for Class A Drivers: A study of safety outcomes and curriculum post 2017 legislation. 2021.



Quebec

There is no required level of training or training content in Quebec for drivers holding a full-privilege Class 5 licence. However, there is a Diploma of Vocational Studies (DEP) for truck transportation which is offered by schools designated by the Quebec Ministry of Education and Higher Education. The program is five months long and includes 615 hours of training.³⁰

As of September 2023, there are two public and four private schools that offer DEP for truck driving. The province's two public schools providing the DEP have management committees that ensure close ties between the schools and industry, and that focus is maintained on industry needs.³¹While training is not required for those holding full-privilege Class 5 licences, the *Enriched heavy vehicle driver training program* enables Class 5 probationary drivers, including young drivers, to obtain a Class 1 licence through mandatory completion of the DEP. The Quebec Ministry of Transport and Sustainable Mobility regulates this program.³²

Atlantic Canada

There is no mandatory training in the Atlantic provinces. However, there is a 12-week tractor trailer standard for training that was developed in 1995 by the Trucking Human Resource Sector Council (THRSC) Atlantic in partnership with training providers and government.³³ While training in the province is not mandatory for Class 1 licensing, all training offered in the province needs to align with the standard.

The standard was first adopted by Nova Scotia in 1997 and proved successful. By December 2008 it had been adopted as the standard for truck driver training in Atlantic Canada based on Nova Scotia's program. The standard is managed by THRSC Atlantic.³⁴

The program involves eight weeks of training at a driving school followed by a four-week internship. The program is delivered by schools in New Brunswick, Nova Scotia, and Prince Edward Island. New Brunswick and Prince Edward Island also offer shorter training courses.³⁵

Newfoundland and Labrador does not have any schools offering the 12-week program. However, the province's non-mandatory 13-week training program is provided by schools that are registered by the provincial government. The government also oversees the training curriculum.³⁶

³⁰ Centre de Formation Du Transport Routier. Truck Driver Program. https://www.cftr.ca/programmes-et-formations/truck-driver/

³¹ Société de l'assurance automobile du Québec. "Obtaining a driver's licence". https://saaq.gouv.qc.ca/en/drivers-licences/obtaining-licence/heavy-vehicle/drivers-licence-class-1. Accessed June 13, 2023.

³² Société de l'assurance automobile du Québec. "Enriched heavy vehicle driver training program". https://saaq.gouv.qc.ca/en/transportation-goods/enriched-heavy-vehicle-driver-training-program. Accessed June 13, 2023.

³³ Trucking Human Resource Sector Council Atlantic. "Standards for Tractor Trailer Training". https://thrsc.com/driver-training/. Accessed June 13, 2023.

³⁴ Ibid.

³⁵ Ibid.

Government of Newfoundland and Labrador. "Approved Driving Schools". https://www.gov.nl.ca/motorregistration/new-drivers/approved-driving-schools/#TableB Accessed June 13, 2023.



Northwest Territories

Effective January 21, 2022, MELT became mandatory for new Class 1 drivers.³⁷ The program is 113 hours. Aurora College has been approved to provide MELT, and other training providers may apply for approval.³⁸

Yukon

MELT has not been introduced in Yukon. However, in 2021 the government indicated that it strongly encourages Class 1 applicants to take preparatory training and that as part of updating Yukon's Motor Vehicles Act from 1977, introducing MELT is being considered.³⁹

Nunavut

MELT has not been introduced in Nunavut. However, in 2021 the Nunavut Economic Development and Transportation department reported that all truck drivers licensed in recent years "have taken professionally delivered entry-level training". ⁴⁰ It is important to note that in Nunavut there are no highways linking communities and commercial trucks are used for local deliveries only.

Key Observations Across the Regulatory Environment for Training

- Truck driver training requirements are regulated at the provincial/territorial level.
- Several Canadian jurisdictions have implemented MELT, based on minimum hours of instruction and content outlined by the Canadian Council of Motor Transport Administrators (CCMTA) in Standard 16 of the NSC. The length and content covered during MELT training varies among the jurisdictions offering it.
- Despite the existence of Standard 16, the implementation of ELT is not mandatory, and there are several Canadian jurisdictions that have yet to implement a form of MELT training.
- Several jurisdictions have implemented alternative forms of truck driver training, which may
 be more robust in form than their MELT counterparts but may not be recognized for
 licensing purposes outside of the province in which it is offered.

³⁷ Government of Northwest Territories. Entry Level Training. https://www.idmv.dot.gov.nt.ca/Drivers/Entry-Level-Training

³⁸ Government of Northwest Territories. Entry Level Training Becomes Mandatory for Individuals seeking a Class 1 Driver's Licence. January 21, 2022. https://www.gov.nt.ca/en/newsroom/entry-level-training-becomes-mandatory-individuals-seeking-class-1-drivers-licence.

³⁹ Bandera, Stephen. Where each province and territory stands on mandatory entry-level training for truck driving. CTV News. October 2, 2021. Updated October 6, 2021. https://www.ctvnews.ca/w5/where-each-province-and-territory-stands-on-mandatory-entry-level-training-for-truck-driving-1.5607848.

⁴⁰ Ibid.



4.3 Training and Education in Canadian Jurisdictions

Table 6 compares training requirements and the cost of training in the jurisdictions included in the study. MELT is offered in three of the jurisdictions, at an approximate cost of between \$10,000 and \$15,000. However, all non-MELT jurisdictions studied offer some form of truck driver training, which may be more robust than MELT in other jurisdictions. The cost of this training is comparable to MELT, except in Quebec, which offers the most robust training program at a low cost to Quebec residents and Canadian citizens.

Table 6: Details of Truck Driver Training and Education Offered in Canadian Jurisdictions Studied

	Mandatory training	Training offered	Cost
Alberta ^{41,42}	Yes	 Class 1 MELT (new drivers; 113 hours) Experience and Equivalency (E&E) Class 1 MELT (experienced drivers needing MELT for AB licensing; 40 hours) Required Air Brake training, (8.5 hours) 	Maximum \$10,000 for Class 1 MELT
Ontario ⁴³	Yes	 MELT (at least 103.5 hours) Covers full air brake systems on both tractors and trailers 	Training providers set their own costs. Program costs typically range from \$5,000 to \$15,000.
Quebec ⁴⁴	No	 Diploma of Vocational Studies (DEP) (615 hours) ~40-hour training (mostly prep for Class 1 exam) 	 Born in QC; from France; or born in Canada outside QC with proof of QC residence: no tuition, materials only. Born in Canada outside QC without proof of QC residence: ~\$1,500 plus materials. Foreign students: ~\$1,500 to \$25,000 plus materials
New Brunswick ⁴⁵	No	 15-week program 12-week program 6-week program 3-week program Hourly training 	 12-week program ~ \$10,000 Shorter courses are \$5,000- \$7,000

⁴¹ Government of Alberta. "Mandatory Entry-Level Training for Class 1 driver's licence". https://www.alberta.ca/mandatory-entry-level-training-for-class-1-drivers-licence. Accessed June 13, 2023.

⁴² Please note that this report was finalized prior to the announcement from the Alberta government on March 27, 2024 regarding modifications to their MELT program, including changes to instruction hours.

Government of Ontario. "Mandatory training for Class A driver's licence applicants". https://www.ontario.ca/page/mandatory-training-class-drivers-licence-applicants#section-3. Accessed June 13, 2023.

⁴⁴ Centre de formation en transport de Charlesbourg. "Future Students". https://cftc.qc.ca/etudiants-et-futurs-etudiants/etudiant-etranger/. Accessed June 13, 2023.

⁴⁵ Trans-Canada College. "Moncton Transport Training Classes". https://www.transcanadacollege.ca/moncton-transport-training-classes.html. Accessed June 13, 2023.

Versatile Training Solutions. "Class 1 & 3 Driver Training". https://versatiletrainingsolutions.com/class-1-3-4-driver-training/. Accessed June 13, 2023.



	Mandatory training	Training offered	Cost
Newfoundland and Labrador ⁴⁶	No	13-week programClass 1 upgrade from Class 3 program	 13-week program ~ \$10,000 Shorter courses are around \$5,000-\$7,000
Nova Scotia ⁴⁷	No	 The only course allowed to be offered is the 12-week program (minimum, unless it is a refresher course) 	• ~12-week program ~ \$10,000
Prince Edward Island ⁴⁸	No	12-week program6-week program3-week program	12-week program ~ \$10,000Shorter courses are around \$5,000-\$7,000
Northwest Territories	Yes	 Only recognized driver school located in the territory provides 185-hour Class 1 training (min. 113 hours is mandatory)⁴⁹ Multijurisdictional company provides MELT in NT⁵⁰ 	 Training providers set their own prices. Cost of MELT training through multijurisdictional provider is \$12,500
Yukon	No	 One local school offers 50-hour truck driver training.⁵¹ Multijurisdictional company provides MELT in YT⁵² 	 \$5,000 through local school Cost of MELT training through multijurisdictional provider is \$12,500
Nunavut ⁵³	No	A multijurisdictional company provides MELT	• \$12,500

Maritime Environmental Training Institute. "Class 1 Driver – Tractor Trailer Program". https://metiatlantic.com/class-1-driver-tractor-trailer-program/. Accessed June 13, 2023.

Breton Commercial Truck Training. https://bretoncommercialtrucktraining.ca/about-us/. Accessed June 13, 2023.

Arctic Response Canada. "About Us". https://arcticresponse.ca/about-us/. Accessed June 13, 2023.

Arctic Response Canada. "About Us". https://arcticresponse.ca/about-us/. Accessed June 13, 2023.

Arctic Response Canada. "About Us". https://arcticresponse.ca/about-us/. Accessed June 13, 2023.

⁴⁶ Central Training Academy. "Class 01". https://www.centraltraining.ca/programs/class-01. Accessed October 20, 2023. Canadian Training Institute. http://canadiantraininginstitutenl.ca/#. Accessed June 13, 2023.

⁴⁷ Commercial Safety College. "Tractor Trailer Internship Program". https://safetycollege.ca/programs/tractor-trailer. Accessed June 13, 2023.

⁴⁸ JVI Driver Training. "Tractor Trailor Class 1A". https://www.jvidrivertraining.com/tractor-trailor-class-1a/. Accessed June 13, 2023.

⁴⁹ Aurora College. "Class 1 Driver Training". https://www.auroracollege.nt.ca/course/class-1-driver-training/. Accessed June 13, 2023

⁵⁰ Wayfinder. "Class 1 Commercial Driver Training". https://wayfinderyukon.ca/training/courses/class-1-commercial-driver-training. Accessed June 13, 2023.

⁵¹ Yukon University. "Commercial Driving". https://www.yukonu.ca/programs/commercial-driving. Accessed February 16, 2024

⁵² Wayfinder. "Class 1 Commercial Driver Training". https://wayfinderyukon.ca/training/courses/class-1-commercial-driver-training. Accessed June 13, 2023.

⁵³ Wayfinder. "Class 1 Commercial Driver Training". https://wayfinderyukon.ca/training/courses/class-1-commercial-driver-training. Accessed June 13, 2023.



Table 7 compares cross jurisdictional recognition of training and training requirements for the in-scope jurisdictions. The MELT jurisdictions take driver experience into account when determining whether an out-of-province driver needs to take MELT in their jurisdiction to obtain a licence. Alberta recognizes completed MELT programs from other provinces, as well as Quebec's DEP. Some ongoing education opportunities exist for drivers in the jurisdictions studied. These are provided by trucking associations.

Table 7: Cross-jurisdictional Recognition of Training and Additional Training, Selected Jurisdictions

	Recognition of other training for licensing	Additional training (e.g., ongoing education, professional development)
Alberta ⁵⁴	 Recognizes MELT from Canada and Quebec's DEP. Drivers with certain experience levels are not required to take MELT, knowledge or road tests.⁵⁵ 	Alberta Motor Transport Association health and safety training programs. ⁵⁶
Ontario	Those with 12 to 24 months experience have the option to complete MELT or the knowledge and road test. ⁵⁷	Ontario Trucking Association literature, programs, training materials, webinars. ⁵⁸
Quebec	Not applicable as training not required.	Quebec Trucking Association road safety and operations training (develop driver experience, update on regulations). ⁵⁹
New Brunswick	Not applicable as training not required.	Atlantic Provinces Trucking Association
Newfoundland and Labrador	Not applicable as training not required.	provides long combination vehicle, occupational health and safety and fuel efficiency training, as well as content to
Nova Scotia	Not applicable as training not required.	develop driver training programming. ⁶⁰
Prince Edward Island	Not applicable as training not required.	Nova Scotia Trucking Safety Association provides occupational health and related industry training. ⁶¹
Northwest Territories	A driver can transfer their Class 1 licence if they have held it for at least 24 months in the last 4 years. ⁶²	None found
Yukon	Not applicable as training not required.	None found
Nunavut	Not applicable as training not required.	None found

⁵⁴ Please note that this report was finalized prior to the announcement from the Alberta government on March 27, 2024 regarding modifications to their MELT program, including changes to instruction hours.

⁵⁵ Government of Alberta. "Mandatory Entry-Level Training for Class 1 driver's license". https://www.alberta.ca/mandatory-entry-level-training-for-class-1-drivers-license. Accessed June 13, 2023.

⁵⁶ Alberta Motor Transport Association. "Courses". https://amta.ca/what-we-do/safety-training/courses/. Accessed June 13, 2023.

⁵⁷ Government of Ontario. "Mandatory training for Class A driver's license applicants". https://www.ontario.ca/page/mandatory-training-class-drivers-license-applicants. Accessed June 13, 2023.

⁵⁸ Ontario Trucking Association. https://ontruck.org/#. Accessed June 13, 2023.

⁵⁹ Association du Camionnage du Québec. "Our road transport training courses". https://www.carrefour-acq.org/formations. Accessed June 13, 2023.

⁶⁰ Atlantic Provinces Trucking Association. "Training". https://www.apta.ca/training. Accessed June 13, 2023.

⁶¹ Nova Scotia Trucking Safety Association. "Training Courses We Offer". https://www.nstsa.ca/training-courses-we-offer. Accessed June 13, 2023.

Government of Northwest Territories Driver and Vehicle Services. "Entry Level Training". https://www.idmv.dot.gov.nt.ca/Drivers/Entry-Level-

<u>Training</u>#:~:text=Entry%20level%20training%20(ELT)%20became,trailers)%20with%20basic%20driving%20skills. Accessed June 13, 2023.



5.0 Role of Training in Accident Prevention

This section reviews the findings from a scan of international jurisdictions, the research on the role of training in accident prevention, the findings from Ontario's ELT Review, and the findings from research on the impact of telematics on driver behavior.

5.1 Training and Education in International Jurisdictions

This section provides a summary of the findings of the jurisdictional scan of training programs and accident rates in Norway, United Kingdom, New South Wales (Australia) and New Zealand. Table 11 details, the findings of the international jurisdictional scan. The level of training required, and testing requirements vary by jurisdiction. New South Wales has a progressive licensing system in which drivers must have a licence for a rigid truck for one year before obtaining a licence to operate a tractor trailer. This is akin to requiring drivers in Canada to have a Class 3 licence for a specific period of time before obtaining a Class 1 licence. Norway has mandatory training, while the United Kingdom and New Zealand do not have mandatory training requirements.

Table 8: Details of Truck Driver Training and Education Offered International Jurisdictions Studied

lorries and lorries with trailers. 63 Category CE licence can then be attained to allow driver to operate a lorry with a trailer. Training on basic vehicle controls and driver traffic is undertaken until driver and instrujointly agree the driver is ready to move of Mandatory 9-hour course on accident second procedures.	Jurisdiction	Accident Frequency	Training Structure	Requirements
 goods, a Certificate of Professional Competence (CPC) must be attained. Mandatory 4-hour course on road safety Mandatory 9-hour course on securing load Applicants must take a theory test. Applicants must present proof of identity Applicants must pass a 45-minute practic test once theory test is passed⁶⁴ 	Norway	average of 194 accidents involving lorries and lorries with	allows driver to operate a lorry. Category CE licence can then be attained to allow driver to operate a lorry with a trailer. To transport commercial goods, a Certificate of Professional Competence (CPC) must	 Must be 21 years of age. Mandatory 3-hour course on heavy vehicle driving. Training on basic vehicle controls and driving in traffic is undertaken until driver and instructor jointly agree the driver is ready to move on Mandatory 9-hour course on accident securing procedures. Mandatory 4-hour course on road safety practices Mandatory 9-hour course on securing loads Applicants must take a theory test. Applicants must present proof of identity. Applicants must pass a 45-minute practical driving

⁶³ Statistics Norway: Vehicles involved in road traffic accidents

⁶⁴ Statens Vegvens: <u>How to get a driving licence</u>, <u>lorry with a trailer</u>

⁶⁵ Statens Vegvesen: Driving licence fees



Jurisdiction	Accident Frequency	Training Structure	Requirements
United Kingdom	Annual average of 17,981 heavy and light goods vehicles collisions (includes minor incidents) ⁶⁶	To become a heavy goods driver (HGV), a Driver Certificate of Professional Competence must be attained. Category C and CE licences can be added to allow for heavier loads and trailers.	Applicants must first apply for a provisional Heavy Goods Vehicle licence: • Applicants must be 18 years of age. • A medical and eyesight exam are required. Obtaining a Driver Certificate of Professional Competence involves the following five steps. Step 1: Two-part theory test, consisting of a multiple-choice section and a hazard perception section. Step 2: Seven situations are presented, and the applicant must answer 6-8 multiple choice questions for each of the situations. Step 3: Off-road exercise test where maneuvers are assessed, and trailer coupling is tested. Step 4: Hour long practical road driving test, coupled with vehicle safety questions. Making 12 or fewer faults is required to pass. Step 5: A practical demonstration test on assessing emergency situations, loading the vehicle, reducing physical risks and other health and safety topics. Additional requirements and fees: • CPC must be renewed every five years by taking 35 hours of Driver CPC training and submitting an HGV licence renewal application. • Vehicle used in third and fourth steps must be in the same driving licence category as the licence being applied to (for articulating and heavier lorries) ⁶⁷ Total fees come to \$500 CAD ⁶⁸

⁶⁶ Government of UK: <u>Reported road collisions and vehicles and casualties</u>

⁶⁷ Government of UK: <u>Become a qualified heavy goods vehicle or bus driver</u>

⁶⁸ Government of UK: <u>Heavy goods vehicle or bus driver fees</u>



Jurisdiction	Accident Frequency	Training Structure	Requirements
New South Wales – Australia	Annual average of 48 fatal crashes involving heavy trucks. An annual average 1014 injuries from crashes involving heavy trucks, 52 of which are serious injuries ⁶⁹	Five licence classes: Light Rigid, Medium Rigid, Heavy Rigid, Heavy Combination, and Multi Combination Basic training requirements are set for obtaining any of the licence levels, additional requirements need to be met as licence level increases.	 For Light Rigid Licence, and all others: Acceptable proof of identity Year 10 education Eyesight test Class C (car) licence held for 1 year. Rigid Heavy Vehicle Knowledge Test Heavy Vehicle Competency Based Assessment or Heavy Vehicle Driving Test For Heavy Rigid licence: Class C (car) licence for 2 years For Heavy Combination Licence: Combination Heavy Vehicle Knowledge Test Medium Rigid or Heavy Rigid licence held for 1 year. For Multi Combination Licence: Heavy Rigid licence or Heavy Combination licence held for 1 year. Combination Heavy Vehicle Knowledge Test (must take if coming from Heavy Rigid licence, if coming from Heavy Combination Licence test must already have been taken) Heavy Vehicle Competency Based Assessment, no road test option. Medical assessment Additional requirements and fees: Fees to acquire a licence range from \$150 to \$170. Fees to renew a licence range from \$62 to \$194. Total training time for top licence, the multi combination licence, is 3 years. To haul dangerous cargo, the "Preparation to Haul Dangerous Goods by Road" training must be completed"

⁶⁹ New South Wales Government: <u>Road Safety Statistics</u>

 $^{^{70}}$ New South Wales Government: <u>Getting a heavy vehicle licence</u>



Jurisdiction	Accident Frequency	Training Structure	Requirements
New Zealand	In 2021, there were 68 fatal crashes involving trucks, 135 serious injury crashes, and 554 minor injury crashes. In 2021, 80 people died in crashes involving heavy trucks, 168 people seriously injured, and 724 minorly injured people. ⁷¹	New Zealand has 5 licence classes, each with learner licence steps. Theory tests must be passed for Class 2 and 3 licences. Class 2 allows the driver to operate heavy vehicles and vehicles with trailers.	 Proof of identify must be provided. Eyesight requirements must be met. A medical certificate must be provided. Must have held a Class 1 (car) licence for at least 6 months. To receive a heavy vehicle learner licence: Pass theory test, with 33 out of 35 correct answers. To receive a full heavy vehicle licence: Have held learner licence for at least 6 months. Pass the 30-minute practical test. Additional licence levels can be attained by applying for their respective learner licences and then practicing with them for 6 months before taking the practical test. Additional requirements and fees: Fees to attain a Class 2 licence total \$168⁷³

⁷¹ New Zealand Ministry of Transportation: <u>Annual safety statistics</u>

⁷² New Zealand Transportation Agency: <u>Full licence requirements</u>

⁷³ New Zealand Transportation Agency: <u>heavy vehicles drivers licences</u>



Table 9 reviews the funding programs for training in each jurisdiction. There are funding programs available to assist students in completing training and obtaining a licence to operate a heavy vehicle. In some cases, the full cost of the training is covered and in others it is partially covered or completed through an apprenticeship during which the student earns income.

Table 9: Details of Truck Driver Training and Education Funding Programs in International Jurisdictions Studied

Jurisdiction	Funding Availability
Norway	 Individuals may receive loans and grants if they train as a lorry driver at a driving school approved by Lånekassen (a public administrative body under the Norwegian Ministry of Education and Research). 74 Students can receive loans and grants for five weeks training as a transport driver. If students are taking the initial qualification course of 140 hours to be granted the Driver Certificate of Professional Competence (CPC) for category C, CE and D they can get basic support for five weeks. This comprises NOK 14,627 (\$1839 CAD) in total. Students cannot get basic support if they are taking the initial qualification course of 140 hours to be granted the Driver Certificate of Professional Competence (CPC) in category C1, C1E, D1, D1E and DE. Students can receive a loan and grant for an extra week if they take both the initial qualification course and driver's licence. If a student is taking both the initial qualification course of 140 hours and a driver's licence in class C, CE or D, they can receive basic support for a total of six weeks. This comprises NOK 17,552 (\$2207 CAD) in total. Students receive the money when they have started their 140-hour initial qualification course. The funds will be disbursed when the school has confirmed the student has started the initial qualification course of 140 hours. This also applies if the student takes a driver's licence class C / CE / D in connection with 140 hours. Students may receive a grant and loan for a driver's licence if it is taken in connection with the initial qualification course. Students may start or take the driver's licence within 12 months of their basic training. Students may receive a tuition fees loan to cover the expenses of the course. They may borrow up to NOK 119,874 to cover expenses for tuition fees or course fees. Students may receive after the student has completed their education. The loan is not converted to a grant until Lånekassen has checked a student's in
United Kingdom (UK)	The UK has the following options for obtaining HGV driving licences ⁷⁵ :

⁷⁴ Lånekassen: <u>Transport Driver Grants and Loans</u>

⁷⁵ UK Government: <u>Action to Reduce the HGV Driver Shortage</u>



HGV Skills Bootcamps⁷⁶

Individuals can obtain their provisional licence through these free courses. The Skills Bootcamps are up to 16 weeks in length and include the cost of the required medical exam and taking each of the CPC tests up to twice. The UK government has invested £34 million in the program which is expected to train 11,000 HGV drivers in England. The program is open to those who have never been HGV drivers, as well as those who want to return to driving.

Large Goods Vehicle Driver Apprenticeships⁷⁷

Apprenticeships are available to those 18 and over who are not in full-time education. Options differ by country (e.g., England, Scotland, Wales, and Northern Ireland) and qualifications and skill requirements may also differ. For example, some apprentices may need to have a full car driving licence.

One of the features of an apprenticeship is that apprentices are paid during training and may also have other costs covered by their employer.

Urban Driver Apprenticeship for Lorries⁷⁸

The UK government launched the new Urban Driver apprenticeship for lorries (category C vehicles) which provides up to £5,000 of funding for training.

Other Support and Training Initiatives⁷⁹

- An incentive payment of £3,000 to employers who employed an apprentice.
- Extra funding for both medical exams and HGV licences for those completing a vocational qualification in HGV driving.
- Funded a driver training pilot to bring jobseekers into the industry.
- Provided grant funding to train ex-offenders and to support initiatives aimed at attracting young people to become drivers.

New South Wales – Australia⁸⁰

- Government funding is available for Australians that are 40 years or older; are an
 Australian citizen or Permanent Resident; are currently employed or recently unemployed
 (within twelve months) and not registered with an Australian Government employment
 services provider; and have completed a Skills Checkpoint for Older Workers assessment.
- Truck licence courses that can be funded are Light Rigid (LR), Medium Rigid (MR), Heavy Rigid (HR) Condition B, Heavy Rigid (HR) unrestricted, Heavy Combination (HC) Condition B, and Heavy Rigid (HC) Unrestricted. Funded placements are capped each year.
- Funding of up to 75% of training and assessment costs to a maximum of \$2000 towards their truck licence training course and assessment is available.

New Zealand

The New Zealand Government announced funding to make driver licence testing and training more accessible, as part of its 2022 budget.⁸¹ The program is budgeted at \$86.5million, over four years.

⁷⁶ UK Government: Find Training to Become a HGV Driver

⁷⁷ UK Government: Find Training to Become a HGV Driver

⁷⁸ UK Government: <u>Government Action to Reduce the HGV Driver Shortage</u>

⁷⁹ UK Government: Government Action to Reduce the HGV Driver Shortage

⁸⁰ Verifico: <u>Government Funded Truck License</u>

⁸¹ AutoTalk: Govt announces funding for driver license incentives



Key Observations from the International Jurisdiction Scan

As in Canada, the duration of training varies by jurisdiction and not all jurisdictions have mandatory training.

Elements of training systems for truck drivers that are used in other jurisdictions are:

- A progressive licensing system is used to allow drivers to develop experience with smaller commercial vehicles prior to being licensed to drive a tractor trailer.
- Ongoing training is encouraged by making completion of a minimum number of hours a condition for license renewal.
- Funding for training is targeted at specific groups of people and there are multiple types of support available for those interested in becoming professional drivers.

5.2 Impact of Training and Education on Road Safety

This section provides a summary of the findings of the literature review on the impact of training and road safety. The literature review primarily considered academic literature published after 2010 and included focused research on additional topics including the impact of telematics on driver behavior.

Much of the literature references telematics and driver feedback. Telematics programs are commonly used in the commercial vehicle space by carriers for driver monitoring and fleet management purposes. There are varying degrees of telematics, used in both commercial and private passenger vehicles. Telematics are currently being used to provide drivers with feedback, immediately or following each trip, with the objective of changing driver behaviour and increasing safety.

The key observations from the literature review on the impact of training and road safety are:

- Regular one-on-one mentoring and training from experienced drivers can increase the safety of new drivers. Coaching interventions 82 (i.e., one-on-one discussions with an experienced driver) and Behavior-Based Safety (BBS) methods83 (which include regular coaching by an experienced driver) have been found to be effective in reducing driver errors (i.e., harsh braking and cornering) and safety related events.
- Long haul truck drivers in Canada believe that current training programs improve safety and reduce risk. Results from a Canadian long haul truck survey indicated that respondents feel that "[t]hose who did not receive formal driver training were significantly more likely to crash than those who had received training..." 84

⁸²Mafeni Mase et al. <u>Evaluating the impact of Heavy Goods Vehicle driver monitoring and coaching to reduce risky</u> <u>behaviour.</u> (2020)

⁸³ Wang et al. <u>Evaluating the effectiveness of Behavior-Based Safety education methods for commercial vehicle drivers</u> (2018) & Pradhan et al. <u>Effects of Behavior-Based Driver Feedback Systems on Commercial Long Haul Operator Safety</u> (2017)

⁸⁴ Malkin et al, Long-Haul Truck Driver Training Does Not Meet Driver Needs in Canada (2021)



- Long haul truck drivers in Canada believe that current training programs are not adequate
 for the industry, particularly for new drivers. Results from a Canadian long haul truck survey
 indicated that respondents feel that "many new drivers are not equipped to drive in various
 contexts and settings (i.e., mountains, slippery roads)." 85
- Long haul truck drivers in Canada believe that training programs should involve a mix of training methods. Results from a Canadian long haul truck survey indicated that respondents feel that "entry-level curriculums should consist of both classroom and practical training, as well as on-road observation with a senior mentor." 86
- There is limited research on the impact of telematics programs on driver behavior. Some papers can be found in the IT domain, but relatively little research has been published related to the relationship between feedback from telematics and the impact on driver behaviour. The literature that does exist reports conflicting results/findings on the ability of telematics programs to influence driver behavior. In some cases, studies find evidence that telematics programs, especially when paired with financial incentives, can influence driver behavior. In others there is limited evidence of an effect. Examples are provided in Appendix C.

5.3 What we Heard

Key informant interviews suggested that MELT programs are not preparing drivers to be road ready; however, it was also noted by some interviewees that this is not the intention of MELT. Rather ELT is intended to provide exposure to the industry, working more like a filter than a prequalification for a driver to begin work in the industry.

Interviewees indicated that even where there is adequate ELT delivery, there is a significant gap in experiential training post-ELT. Onboarding and mentorship are considered key to properly preparing truck drivers; however, the length and quality of onboarding and mentorship programs among carriers varies significantly. The size and financial capacity of a carrier is a key factor impacting what is offered in terms of onboarding and mentorship.

Challenges with ELT Delivery

Interviewees reported the following challenges with effective delivery of ELT:

- Training needs to be customized to be effective. Some students may need more training than
 others, in different skillsets than others. One driver training school matches students with
 instructors who are able to support them in developing a particular skill they require. This
 approach, although effective, increases the cost of training.
- **Instructors require training certification.** There is no requirement for training certification for truck driver instructors in Ontario, which has resulted in significant issues in the quality of instructors providing training to future drivers. This issue has been acknowledged by the province and is in the process of being addressed.

⁸⁵ Ibid

⁸⁶ Ibid

⁸⁷ Martin Eling & Mirko Kraft, 2020. "The impact of telematics on the insurability of risks," Journal of Risk Finance



- Instructor experience requirements may require review. There is significant need for quality
 truck driver instructors. However, interviewees indicated that in Ontario, instructors need fiveyears' consecutive experience to be insured or insured at a reasonable rate as driver instructors.
 This requirement makes it difficult for recent retirees with many years of experience as drivers to
 become instructors.
- Review and adjustments to training are required on a regular basis. Interviewees noted the need for training standards to be reviewed and adjusted to incorporate improvements over time. It was also noted that driver training schools should have input into this process.

Oversight and Compliance Issues

Driver training school oversight and compliance were consistently raised as key issues by interviewees:

- The quality of schools varies, and this impacts training delivery. Interviewees cited instances of schools 'cutting corners', providing examples such as insufficient instruction where instructors simply read to students from the training book, or required hours being logged as complete when they are not. This has significant impact on students. Interviewees indicated there are significant differences seen in drivers coming out of 'good' schools versus 'bad' schools.
- School audits are paper based. Interviewees explained that while school audits occur, they are paper based. Instruction and trucks are not inspected as part of the auditing process. There may also be instances where a school may have all the proper paperwork, but the process of completing that paperwork may not have been honest.
- Insufficient capacity to complete regular school audits. Interviewees indicated there are a limited number of inspectors available to complete audits of driver training schools. In Ontario, there are eight inspectors responsible for auditing not only the almost 200 schools providing truck driver training, but all the province's registered private career colleges. As a result, the province's truck driver training schools are only audited every three to four years. It was also noted that inspectors completing the audits do not have any special knowledge of trucking.
- The current pass/fail system does not create confidence among insurers. Insufficient oversight of training programs has created the perception among insurers that students can simply purchase their credentials. For insurers to have confidence in the training they require more assurance that training programs are being delivered properly. A grading program with measurable performance standards would be preferred by insurers over the current pass/fail system.
- Some industry associations are filling gaps in oversight. Interviewees indicated that some insurers look for drivers coming out of schools that are recognized by, or are members of, particular industry associations. These associations audit their members and/or provide other types of oversight that increases insurer confidence in both the schools and their students.

Onboarding and Mentorship Gaps and Initiatives

Interviewees emphasized that onboarding and mentorship are key elements in ensuring the development of competent and safe truck drivers. This is a recognized gap in the industry, with several different efforts being made in the various jurisdictions studied to improve onboarding and mentorship opportunities. Themes that were identified through the interviews were:

• Practical experience is required to prepare drivers to be road ready. Even with adequate



entry-level training, there is a need to provide additional individualized coaching and guidance to drivers. Drivers require additional training on driving in different terrains and conditions, with various types of trucks and commodities, as well as training on how to use electronic logging devices.

- Onboarding and mentorship quality varies among carriers. Onboarding and mentorship provided by carriers ranges from nothing to as long as two years. As with entry-level training, there is a significant difference seen among drivers who have gone through quality finishing programs versus those who have not.
- There is a lack of incentives for drivers to become coaches or mentors. Training others can be daunting, and it was suggested that there are insufficient incentives for drivers to want to pursue this vocation. One interviewee indicated that drivers moving to coaching or mentoring positions may have their pay decrease.
- Quebec's DEP is held in high regard for its quality and the additional training opportunities it provides. DEP instructors are university-educated with teaching degrees, and students receive training on multiple types of high-quality equipment in various scenarios throughout the 615-hour program. One interviewee indicated they would like to see a Quebec-style training program implemented across the country as this program gives insurers a high level of comfort. Nevertheless, insurance companies still look to experience when insuring drivers, even those coming out of the Quebec program. However, new Quebec drivers have greater ability to obtain a product in the residual insurance market for a reduced rate, putting less pressure on insurance companies to flex their requirements for drivers in that province.
- Attempts to fill the onboarding and mentorship gap are being made at various levels. Initiatives are underway or being led by government, insurance companies, driver training schools, or industry associations in the different jurisdictions studied:
 - Several **insurance companies provide training** for drivers after they have obtained their licences (e.g., defensive driving, hours of service, road evaluations).
 - One driver training school interviewee has started offering competency assessments to carriers for their drivers. This helps to build a carrier's safety culture as well as driving skills. Results have included reduced need for repair and maintenance for vehicles as drivers handle the vehicles better, and fewer spills by drivers hauling fluid.
 - One jurisdiction's industry association is developing a commercial driver competency training program – an on-the-job training program. This work will feed into a provincial initiative to turn this training into an apprenticeship.
 - Another jurisdiction's industry association is adopting a state-of-the-art road test format
 to test drivers for employment. The association also developed a mentorship program
 for finishing drivers that carriers can access for their new drivers. This mentorship program
 has been approved by several insurance companies.



Other Training Gaps and Initiatives

While delivery and oversight of entry-level training along with gaps in onboarding and mentorship are major issues within the industry, interviewees mentioned several other important driver training gaps, as well as suggestions to improve driver skill and safety:

- Funding is the most considerable challenge for those who want to take truck driver training. While there are funding programs available for individuals in certain groups, there is a gap in funding for a significant portion of the population that may want to access ELT (e.g., those who are fully employed, and/or who are not employed with a trucking company). Further, interviewees feel that a long-term goal for the industry should be to establish institutionalized funding for onboarding training delivered by carriers, with the caveat that it goes to carriers with sufficient onboarding training.
- There is a lack of clarity on the role of driver training schools versus that of carriers in training drivers. Interviewees agreed that insufficient training of truck drivers is a significant issue, but it is unclear where the responsibility lies in terms of filling training gaps. ELT programs have limited hours to cover training material, and any increase in material increases training costs. One interviewee indicated that the purpose of ELT is to help students prepare for the road test, and that there is not enough time to accomplish much else. Other interviewees indicated that schools should be training for more than just passing the road test.
- Interpersonal skills are viewed as a gap by some. Some interviewees noted that training on how to give and receive feedback as well as leadership training are seen by some to be lacking in the industry. This is further seen as impacting driver ability to transfer knowledge and train the next generation of drivers.
- **Designations should be required to haul specific materials.** One interviewee suggested that drivers should be required to pursue training and designation to transport certain load types and that these designations should need to be renewed after a reasonable amount of time.
- On-board cameras work well for understanding and learning from incidents. Although feelings may be mixed on use of on-board cameras, they have been found to be very useful learning tools. They also help ensure driver accountability.
- Continuous professional development has an important role to play in accident prevention. The trucking industry changes regularly and there is a need to ensure drivers are kept apprised of new industry developments and practices. One interviewee noted that one carrier's accident rate increased when its defensive driving refresher course frequency was adjusted from every two years to every three years. The rate then decreased again when the carrier adjusted the training frequency back to every two years.



Best Practices

Our review of the literature and interviews with industry participants identified the following best practices for commercial truck driver training and how changes to training and education could improve road safety: These are presented below. Please note they are not presented in any order of priority.

Best Practice #1

Truck driver training instructors require training certification to effectively develop driver competency and safety in students. A driver may display exceptional driving ability; however, this does not mean they are able to effectively transfer that knowledge to new drivers. This issue can be seen in Ontario, where the lack of requirements for training certification for truck driver instructors has resulted in significant issues in the quality of instructors providing training to future drivers. Further, instruction via university-credentialed instructors is championed as a key factor in the success of Quebec's DEP program.

Best Practice #2

Monitoring compliance and enforcing rules and regulations across training schools are key components to an effective training system. It was noted in multiple jurisdictions that some training providers do not properly follow the training guidelines and curricula while some interviewees noted that the caliber of students emerging from some schools is weaker than others. At the same time, a shortage of inspectors to carry out such monitoring and enforcement was reported in many jurisdictions. Ensuring programs are actually delivered thoroughly and up to standard is of great importance.

Best Practice #3

Introducing a graduated licensing system may increase driver preparedness and road safety. Such a system allows novice truck drivers to gain experience gradually, starting with restricted driving conditions and advancing to more complex scenarios over time. New South Wales, Australia, has successfully implemented a progressive licensing approach in which there are minimum periods during which a driver must have a lower-level licence before obtaining a licence for driving a tractor trailer.

Best Practice #4

Additional education is required once drivers earn their Class 1 licence and begin working in the industry. Additional training, once students graduate from MELT (or their equivalent courses) and secure their Class 1 licence, is critical. Approximately 40 percent (or 200 of 500) of truck driver competencies are covered by MELT programs. This means that graduating drivers do not yet have the full depth of skills required to be road ready, giving rise to the requirement for further education.



Best Practice #5

Mentorship is considered a key mechanism to successfully provide the required additional training referenced above. The additional 300 truck driver competencies can be acquired in several ways including on-the-job training and finishing schools. Providing mentorship in which a new driver has both quality and quantity of in-cab hours with an experienced driver was considered by all stakeholder groups the optimal medium for providing additional training.

Best Practice #6

Overall company culture that prioritizes safety is key to development and maintenance of safe drivers. Carriers that prioritize safety as an essential part of their culture tend to be those with more robust onboarding, finishing, and continuous education programs. These training opportunities, and daily driver exposure to a culture of safety, help to impress safe practices upon drivers, aiding in reducing their accident frequency and severity.

Best Practice #7

Continuous professional development throughout a trucker driver's career is important. The industry evolves regularly as new technologies are introduced, and rules and regulations are updated and/or modified. In the face of this change, it is important for established drivers to be kept abreast of such changes and thus the need for regular training is important throughout driving careers to ensure continued safety. To encourage ongoing training some jurisdictions require drivers who want to renew their license to complete a minimum number of hours of training over a five-year period.

Best Practice #8

A driver database which all industry stakeholders can access would be a useful addition to the training and insurance landscape. Insurers identified that a driver database, including driving record and training record would allow help them and training providers assess driver training programs in conjunction with a drivers record and claims history. This analysis could help inform the effectiveness of training programs and provide details on which training programs are effective at increasing certain aspects of driver safety. Results could be used to inform changes to training programs that result in safer drivers. Additionally, the database would create transparency within the industry, expedite the processes which a driver takes when transferring their credentials and records to new jurisdictions, and support carriers and insurers in more accurately assessing risks.



6.0 Conclusion

Driver experience is correlated with claim rates and claim severity. Younger and more inexperienced drivers tend to have more accidents and as a result, insurance premiums for these drivers are higher. This means that as more new drivers enter the industry to replace those retiring the cost of insurance for carriers is likely to increase unless steps can be taken to reduce accident rates.

Our review of the regulation and enforcement of heavy trucks and training programs for drivers found that:

- Roadside inspections and facility audits have positive impacts on safety and compliance rates. Research has shown the inspections and audits lead to increased compliance.
- There is some indication that enforcement of violations may be inadequate. After removing targets for inspection and facility audits in the 2008/09 government fiscal year the number of roadside inspections and facility audits has remained relatively stable. However, reviews by the Auditor Generals in Alberta and Ontario covering the 10-year period following removal of the targets found that enforcement of safety violations was inadequate. As of 2021 Alberta had implemented the Auditor General's recommendations with respect to enforcement while the Ontario Ministry of Transportation reported that it had fully implemented less than 20 percent of the Auditor General's recommendations.
- National Safety Code (NSC) 16: Entry Level Training (Class 1) has not been consistently implemented. While most NSC standards have been implemented through regulation or legislation, implementation of NSC 16: Entry Level Training (Class 1) varies by jurisdiction. Of the seven provinces and three territories reviewed, three have mandatory training Alberta, Ontario, and Northwest Territories. MELT has not yet been implemented in Quebec, Atlantic Canada, Yukon, and Nunavut.
- MELT programs are introductory training and need to be followed with onboarding and mentorship. Entry-level programs are intended to provide exposure to the industry and basic skills to pass the Class 1 test. The development of competent drivers requires onboarding and mentorship once a student has passed the test and periodic refreshers on safety and updates on new developments throughout one's career as a truck driver.
- Training quality varies by school and there is a need for oversight and enforcement of standards. There is inconsistency in how training is delivered and not all schools provide training consistent with the defined standards.
- The cost of training is a barrier for those wanting to enter the industry. MELT training costs between \$10,000 and \$15,000, which can prevent some people from taking the training. While funding is available for some groups, there is a gap in funding for other groups who may not have the means to pay for the training.
- Smaller carriers may be challenged to provide onboarding and mentorship programs. Onboarding and mentorship programs require an investment of time and increase the costs associated with newer drivers. For smaller carriers the costs of developing and providing such programs on their own may be prohibitive.



Our review of the literature and best practices suggests that changes to oversight and enforcement of safety violations, and driver training have the potential to improve road safety. Increasing enforcement of safety violations could increase compliance with safety measures and encourage carriers to develop a culture of safety. Improvements to training for drivers that could improve road safety are:

- Improve oversight of training providers. Increasing oversight and enforcement of training standards at driving schools offering commercial driver training could increase the quality and consistency of training.
- Development of onboarding and mentorship programs by industry associations that could be utilized by carriers. Sharing the cost of program development and administration could lower the cost of providing onboarding and mentorship to new drivers and make it easier for carriers to provide it. Funding for the development and administration of the program could be provided through partnerships between insurers, carriers and government.
- Piloting the use of telematics to provide drivers with feedback. The use of technology to provide feedback to drivers has the potential to reduce the cost of onboarding and mentorship. At present there is no consensus on whether telematics is effective at increasing driver safety. To address this gap a pilot project could be undertaken to assess the effectiveness of the use of telematics in providing feedback and increasing safety.
- **Piloting the use of graduated or progressive licensing**. Such a system allows novice drivers to gain experience gradually, starting with restricted driving conditions and advancing to more complex scenarios over time.

To illustrate the impact of improvements in road safety on claim costs we estimated the reduction in claim costs for each accident avoided for drivers with three years of experience driving a logging truck in Alberta. Table 10 shows the reduction in claim costs for each accident avoided. In 2015 claim severity was significantly higher than between 2016 and 2018. Each accident avoided in 2015 would have reduced claim costs per policy by approximately \$581.80. Between 2016 and 2018 each accident avoided would have reduced claim costs per policy by between \$100 and \$125. Reductions in claim costs would be reflected in adjustments to insurance premiums.

Table 10: Reduction in Claim Costs from Improved Safety for Drivers88

Policy Year	Number of Earned Vehicles	Number of Claims	Claims and Adjustment Expenses	Average Cost Per Claim	Reduction in Claim Costs	Reduction in Claim Costs per Policy
2015	206	3	\$357,277	\$119,851	33.5%	\$581.80
2016	221	4	\$106,502	\$23,773	22.3%	\$107.57
2017	231	7	\$157,599	\$22,546	14.3%	\$97.60
2018	223	9	\$244,837	\$27,268	11.1%	\$122.28

⁸⁸ Number of earned vehicles, claims, claims and adjustments expenses and average cost per claim are from GISA, 1502 Exhibit.



Appendix A: Data Collection Tools

During the engagement, commercial vehicle training stakeholders were engaged to gather information on factors contributing to traffic accidents involving heavy trucks, how education and training may improve road safety, and best practices for training commercial truck drivers. Stakeholders were separated into four groups: insurance providers, telematics companies, training schools, and trucking associations. Interview guides were created each stakeholder group. All interview guides included the following introductory information:

The Insurance Bureau of Canada and MNP, a national accounting and consulting firm, are engaged in research to identify best practices related to commercial truck training and education and how changes in training requirements could contribute to road safety, and a more sustainable commercial trucking insurance marketplace.

As part of this research, MNP is interviewing a number of stakeholder groups including insurance companies and Facility Association to better understand how commercial truck drivers are insured, factors that are considered when insuring drivers, effect of driver training on accident rates, training modalities, barriers to training and the provision of training and options for the provision of training.

Thank you for agreeing to partake in a telephone interview with us. The interview will take anywhere between 30 minutes to 45 minutes, depending on the amount of information you provide.

MNP will maintain the confidentiality of all information provided throughout the course of the interviews. Individual responses will not be shared with any other party and will not be available to external project stakeholders. The results will be reported in a summary format, with any identifying information of the respondent removed.

MNP is committed to maintaining the security, confidentiality, and accuracy of any personal information collected, including personal views and opinions related to the review. The MNP Privacy Policy can be viewed at www.mnp.ca/en/privacy-policy.

Interview guides contained different questions for each stakeholder group. The questions included in each stakeholder groups interview guide were:

Insurance Providers

- 1. Would you begin by telling us a bit about your organization's operation and your role within it, particularly as it relates to commercial trucking?
- 2. How are commercial truckers insured in [province] and what factors are considered when assessing their risk? [Prompt: What weight is given to training and education?]
- 3. What trends have you observed when it comes to insuring commercial truck drivers in the residual market? Please explain. [Prompt: Have the numbers of such policies increased or decreased in the last five years?]



- a. Has the introduction of mandatory/additional training affected this trend?
- 4. Does claim frequency or severity vary by demographic groups or experience groups (i.e., 1 year of experience, 5 years of experience, etc.)?
- 5. What are the most common factors contributing to accidents involving heavy trucks? Does this vary by demographic group or experience group?
- 6. What geographic trends, if any, do you see when it comes to the location of accidents (i.e., road type, urban, rural, etc.)?
- 7. From your perspective, how does training and trucker education prepare commercial truck drivers for the job?
- 8. How does your company incorporate Mandatory Entry Level Training (MELT) into your underwriting?
- 9. Once a driver has achieved MELT, will your company take them on as a client or is there a requirement for them to gain experience in market first (i.e., do clients have to go to a Facility Association first if they don't have many years of experience e.g., under 3yrs)?
 - a. How many years of experience does your company require before a standalone commercial truck insurance policy is written for a client?
- 10. When thinking about commercial trucking companies with fleets, are they able to add new drivers without difficulty? [Prompt: or is there a risk that they could lose their entire insurance cover for the fleet if they add new, less experienced drivers?]
- 11. Are you aware of whether truck carriers have commercial fleets that run effective education for their new drivers? [Prompt: What does the continuous education training look like?]
- 12. How do driver training and education affect accident rates and the severity of accidents?
- 13. What types of training initiatives or programs have shown the most significant positive impact on accident rates based on your observations or industry research?
- 14. Is there a role for education in reducing accident rates among heavy vehicles?
- 15. From your perspective, what training and education gaps, if any, exist in [province] for commercial truck drivers?
- 16. In your opinion, what role, if any, could continuous professional development play when it comes to reducing accident rates among heavy trucks?
- 17. How would insurance coverage change for a trucking company if the provincial/territorial requirement for MELT was enhanced?
- 18. What suggestions do you have regarding mechanisms for accurately assessing risk for commercial truck drivers?
- 19. Is there anything else you'd like to mention that we haven't already discussed?

Telematics Companies

- 1. Would you begin by telling us a bit about your organization's operation and your role within it, particularly as it relates to commercial trucking?
- 2. How does your product work?
- 3. How long has it been in the market?
- 4. What information do you collect on drivers? (e.g., demographics, experience etc)
- 5. What factors contribute to lower risk drivers? (i.e., age, experience, etc.)?



- 6. What are the most common factors contributing to accidents involving heavy trucks? Does this vary by demographic group or experience group?
- 7. What geographic trends, if any, do you see when it comes to the location of accidents (i.e., road type, urban, rural, etc.)?
- 8. From your perspective, how does training and trucker education prepare commercial truck drivers for the job?
- 9. How do driver training and education affect probability of collision / scores?
- 10. What types of training initiatives or programs have shown the most significant positive impact on accident rates based on your observations or industry research?
- 11. Is there a role for education in reducing accident rates among heavy vehicles?
- 12. From your perspective, what training and education gaps, if any, exist in [province] for commercial truck drivers?
- 13. In your opinion, what role, if any, could continuous professional development play when it comes to reducing accident rates among heavy trucks?
- 14. What suggestions do you have regarding mechanisms for accurately assessing risk for commercial truck drivers?
- 15. Is there anything else you'd like to mention that we haven't already discussed?

Training Schools

- 1. Would you begin by telling us a bit about your organization's operation and your role within it, particularly as it relates to commercial trucking?
- 2. In your opinion, how does training and trucker education prepare commercial truck drivers for the job?
 - a. How do driver training and education affect accident rates and the severity of accidents?
- 3. How are the required commercial truck driving skills (e.g., technical, decision-making, management, etc.) taught in [province]?
 - a. What training delivery methods and modalities are appropriate for the sector and preferred by learners?
- 4. What training do the training instructors undergo? Please provide details.
- 5. From your perspective, what training and education gaps, if any, exist in [province] for commercial truck drivers?
- 6. To the best of your understanding, what process must New Canadians with previous commercial truck driving experience from their home country follow to drive commercial trucks in [province]? (e.g., licensing equivalencies)
- 7. How are training requirements and standards in [province] maintained and enforced?
 - a. Is there an issue with non-compliance?
- 8. What are the main barriers facing individuals wanting to access commercial training and education?
- 9. In your opinion, what role, if any, could continuous professional development play when it comes to providing an effective, robust training system?
- 10. What are the best practices for developing and delivering effective commercial trucker training and education?



- a. Does your organization offer any specialized modules to students? For example, training for driving on northern highways, transporting hazardous goods, etc.
- 11. What suggestions do you have regarding mechanisms for insurance companies to accurately assess risk for commercial truck drivers?
- 12. Is there anything else you'd like to mention that we haven't already discussed?

Trucking Associations

- 1. Would you begin by telling us a bit about your organization's operation and your role within it, particularly as it relates to commercial trucking?
- 2. What geographic trends, if any, do you see when it comes to the location of accidents (i.e., road type, urban, rural, etc.)?
- 3. In your opinion, how does training and trucker education prepare commercial truck drivers for the job?
 - a. How do driver training and education affect accident rates and the severity of accidents?
- 4. What additional training (i.e., beyond MELT/initial programming) do commercial truck drivers get and does this vary by company? (e.g., do some companies provide mentorship or continuous education)
 - a. Are there opportunities to expand this?
- 5. From your perspective, what training and education gaps, if any, exist in [province] for commercial truck drivers?
- 6. To the best of your understanding, what process must New Canadians with previous commercial truck driving experience from their home country follow to drive commercial trucks in [province]?
- 7. What are the main barriers facing individuals who want to access commercial training and education?
- 8. In your opinion, what role, if any, could continuous professional development play when it comes to providing an effective, robust training system?
- 9. What are the best practices for developing and delivering effective commercial trucker training and education?
- 10. What suggestions do you have regarding mechanisms for insurance companies to accurately assess risk for commercial truck drivers?
- 11. Is there anything else you'd like to mention that we haven't already discussed?



Appendix B: Enforcement Statistics

Province (target between 2004 and 2009)	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18
AB (21,724)	30,986	32,013	36,720	32,119	32,771	30,156	30,913	25,947	28,124	28,367
ON (77,153)	90,288	104,120	95,513	102,807	102,651	110,345	120,960	119,548	113,412	142,782
QC (26,943)	56,928	100,440	96,320	35,408	65,204	73,620	79,328	Unavailable	Unavailable	Unavailable
NB (5,642)	25,422	28,991	29,808	26,714	25,729	26,013	24,962	20,117	11,710	12,973
NL (1,243)	1,265	1,748	1,986	1,765	1,636	1,157	1,047	1,333	1,941	1,349
NS (3,961)	7,801	7,502	10,145	10,618	7,987	9,578	8,971	9,390	9,354	10,908
PEI (1,036)	2,381	2,160	1,677	1,759	1,521	1,154	1,779	1,267	1,239	1,361

Souce: Multi-Modal & Road Safety Programs, Transport Canada. Commercial vehicles safety in Canada 2012-2018.



Appendix C: Literature on Telematics

The studies identified in our literature review that found that telematics combined with financial incentives can influence driver behaviour were:

- AllState, a large international insurer, experienced a 12% reduction in claims for private passenger policies that opted in to their DriveWise telematics program.⁸⁹
- "Some on-road and simulator studies suggest that providing feedback or combining feedback with financial incentives can significantly improve driving behaviors." ⁹⁰
- "[T]here is evidence to suggest that providing feedback (via telematics and video footage) ... can reduce driving events associated with the risk of crashing."91

Studies and business cases exist suggesting telematics programs have negligible influence on driver behavior were:

- "[F]eedback was not by itself sufficient to improve driver behaviour in a simulated driving environment."92
- "[R]eported among a sample of young (<30 years) insurance policyholders, a ... reduction in volitional speeding (pre-post change: 20.5% to 17.6% of kms travelled."93
- "For the primary outcomes of probability of speeding, hard acceleration and hard braking on any given trip, neither feedback alone nor feedback plus incentives delivered statistically significant improvements in driving behaviour relative to the controls."⁹⁴

⁸⁹ AllState; DriveWise

⁹⁰ Reagan et al. <u>The effects of external motivation and real-time automated feedback on speeding behavior in a naturalistic setting</u> (2013)

⁹¹ McGehee et al, <u>The effect of telematic based feedback and financial incentives on driving behaviour: A randomised trial</u> (2007)

⁹² McGehee et al. <u>The effect of telematic based feedback and financial incentives on driving behaviour: A randomised trial</u>

⁹³ McGehee et al. The effect of telematic based feedback and financial incentives on driving behaviour: A randomised trial

⁹⁴ Stevenson et al. The effect of telematic based feedback and financial incentives on driving behaviour: A randomised trial. (2021)



Appendix D: About MNP

For over 60 years, MNP has proudly served and responded to the needs of clients in the public, private and not-for-profit sectors. Today, MNP is the fifth largest Chartered Professional Accountancy and business consulting firm in Canada and is the only major accounting and business consulting firm with its head office located in Western Canada. MNP has more than 117 locations and over 7,100 team members across the country.



About MNP's Economics and Research Practice

Economic and industry studies are carried out by MNP's Economics and Research practice. The Economics and Research practice consists of a team of professionals with a successful track record of assisting clients with various financial and economic impact studies. Our work has encompassed a wide range of programs, industries, company operations and policy initiatives, and has helped clients with decision-making, communication of economic and financial contributions, documentation of the value of initiatives and activities, and development of public policy.





