

# Commercial Vehicle Safety and Enforcement

## 1.0 Summary

The Ministry of Transportation (Ministry) has estimated that Ontario's truck traffic increased 10% from 2009 to 2018. Truck traffic is daily truck volumes on Ontario roads, including trucks not registered in Ontario. This rise in commercial vehicle traffic means Ontarians are increasingly sharing the road with large vehicles. Collisions involving commercial vehicles have a higher risk of injury and death due to the size of the vehicles involved.

According to the Ministry, the direct social cost of large truck collisions in Ontario for the five-year period from 2011 to 2015 (the most recent data available) was \$2 billion. This includes costs related to property damage, health care, police, courts, fire and ambulance services, tow trucks and traffic delays.

In the ten years from 2008 to 2017, commercial vehicles (large trucks and buses) were involved in over 182,000 collisions in Ontario. The collisions resulted in almost 44,000 injuries and 1,180 fatalities. Commercial vehicles were at-fault in 46% of these collisions, including 33% of collisions that resulted in a fatality, whether due to the driver's actions or the vehicle's condition.

We found that Ontario consistently ranks among the safest provinces in Canada and compares favourably to the United States for overall road

safety when measured based on fatalities and injuries per registered motor vehicle and vehicle kilometres travelled. However, Ontario maintained higher fatality and injury rates than Canada as a whole and the United States in the majority of years between 2008 and 2017 when evaluating only commercial vehicles. Commercial vehicles include trucks and trailers with a gross weight over 4,500 kilograms, tow trucks—regardless of weight—and buses with a seating capacity of 10 or more passengers.

From 2014/15 to 2018/19, the Ministry spent over \$200 million on commercial vehicle enforcement, including \$39.4 million in the 2018/19 fiscal year. In 2018, about 60,000 carriers were registered to operate in the province and over 290,000 registered commercial vehicles.

Our audit found that there are many opportunities for the Ministry to improve overall safety through its commercial vehicle safety and enforcement program. One of the most important activities the Ministry performs to ensure safety on Ontario roads is its roadside inspections of commercial vehicles. However, we found that between 2014 and 2018, the number of inspections the Ministry conducted decreased by 22%, from over 113,000 in 2014 to fewer than 89,000 in 2018, because the Ministry was unable to fill enforcement officer vacancies, and because the majority of enforcement officers did not meet their individual annual productivity targets for the number of inspections

to complete. As a result, the Ministry missed the opportunity to remove thousands of additional unsafe commercial vehicles and drivers from Ontario's roads. To conduct roadside inspections, the Ministry employs about 230 enforcement officers in 18 Ministry districts across the province. In addition to the Ministry's enforcement officers, about 50 police officers at 15 municipal police forces, and 81 Ontario Provincial Police (OPP) officers, conducted roadside inspections in 2018.

We also found that driver training is not mandatory for some of the highest risk commercial driver's licence classes, and that Ontario allows commercial vehicle driver licensing practices that are uncommon in other jurisdictions, such as allowing commercial vehicle carriers (businesses that operate commercial vehicles) with a poor collision history to test their own drivers for commercial vehicle driver's licences.

In addition, the Ministry does not effectively monitor and consistently take action to address high-risk Motor Vehicle Inspection Station (MVIS) garages, which issue safety certificates for commercial vehicles.

The following are some of our specific concerns about the Ministry's commercial vehicle safety and enforcement program:

- **More unsafe commercial vehicles and drivers could have been removed from the roads with more inspections.** We noted that between 2014 and 2018, the Ministry removed 22% of all the commercial vehicles it inspected from the road for driver violations and mechanical defects. If the Ministry had continued to conduct as many inspections between 2015 and 2018 as it did in 2014, it could have removed as many as 10,000 additional unsafe commercial vehicles or drivers from Ontario's roads.
- **Roadside inspection enforcement is not consistent across the province, impacting the effectiveness of roadside inspections in preventing collisions.** Although the Ministry introduced a framework in 2015 to increase the consistency of the decisions its officers make, we found significant differences across the province in the rate at which officers lay charges and remove unsafe vehicles from the road. For example, in 2018, one district laid charges in over 30% of roadside inspections, while another laid charges in fewer than 8% despite finding violations in over 40% of inspections. The Ministry has not performed an analysis of why different regions seem to lay fewer charges given similar opportunities. Ministry research indicates that laying charges during a roadside inspection prevents collisions, preventing a minimum of 25%, and possibly up to half the collisions that inspected carriers may otherwise be involved in.
- **The majority of carriers have not had a vehicle inspected in the past two years, including carriers with a poor collision history.** Our audit found that the Ministry had not inspected any of the commercial vehicles of 56% of Ontario's 60,000 carriers in the last two years. This included many carriers at the highest risk of future collision. We analyzed the carriers with the highest collision violation rates and found that nearly 20% (of 870 highest risk carriers) had not had any of their commercial vehicles inspected in the two years preceding May 2019.
- **Most roadside inspections are performed on provincial highways, allowing "local haulers" to avoid inspection.** Although the Ministry collects data on commercial vehicle traffic on provincial highways, it has limited data on commercial vehicles operating on municipal (including urban) roads. Using collision data as a proxy for traffic, we found that from 2014 to 2018 approximately 68% of collisions involving trucks belonging to Ontario-registered carriers occurred on municipal roads. However, over 90% of roadside inspections are conducted by Ministry enforcement officers, usually at truck inspection stations

on provincial highways. This indicates that “local haulers,” who operate primarily on municipal and urban roads, are unlikely to be subject to roadside inspection, and drivers and carriers could purposely avoid roadside inspection by driving on municipal roads.

- **Despite a high risk of collisions, the Ministry does not sanction municipalities.** We analyzed the 50 largest Ontario municipalities that operate commercial vehicles and found that on average, the collision violation rate for these municipalities was almost 250% higher than the average collision violation rate for all carriers travelling a similar amount of kilometres. The rate measures collisions where the driver or a vehicle defect was listed at-fault in the collision. Of the 50 municipalities reviewed, 28% had exceeded 100% of their collision points’ threshold at the time of our audit. Though the Ministry issues warning letters, carries out facility audits and conducts interviews in response to high violation rates, we found that the Ministry does not impose sanctions on municipalities—such as suspending or cancelling the registration of municipalities, regardless of how poor their safety record is. Municipalities, therefore, can operate under poor safety ratings with few consequences and little incentive to improve.
- **The Ministry does not assess the reasonableness of kilometres travelled reported by carriers that are used to calculate safety ratings.** Both our own analysis and a 2013 analysis conducted by a consultant hired by the Ministry identified that many carriers reported kilometres travelled per truck that were in excess of what is reasonable. Although carrier kilometres travelled is a key variable for calculating the Ministry’s carrier safety rating, we found that the Ministry does not have a process to ensure that carrier kilometres travelled reported to the Ministry are reasonable and accurate. As a result, the Ministry cannot ensure the accuracy of carrier safety ratings.
- **Mandatory Entry-Level Training (MELT) has not been extended to other commercial class driver’s licences.** All drivers must complete MELT before they can apply for a Class A licence, required to drive a tractor-trailer, but the Ministry has not extended this requirement to other licence classes. We found that drivers of large trucks that do not require a Class A licence—for example, a dump truck—were involved in more collisions and injuries per registered truck than drivers of tractor trailers.
- **The Ministry allows some carriers with a poor history of collisions to test their own employees for commercial vehicle driver licences.** The Ministry approves colleges, government organizations, safety organizations and private businesses, including carriers, to train and test drivers under the Driver Certification Program. Carriers approved under the program can deliver and grade knowledge and road tests for their own drivers. We analyzed carriers that test their own drivers and found that drivers who took their road test with carriers between 2014/15 and 2018/19 had a pass rate of 95% compared with just 69% at DriveTest centres. However, the Ministry has not analyzed this difference to assess whether it is reasonable. We found that 25% of the 106 carriers testing their own drivers under the program ranked among the worst 1% of all carriers for at-fault collision performance. A jurisdictional scan by the Ministry found that with the exception of a handful of carriers in two provinces, other Canadian provinces do not allow carriers to test their employees for commercial driver’s licences.
- **There is no mandatory drug and alcohol testing for commercial vehicle drivers.** In Ontario there is no requirement for commercial vehicle drivers to be subject to

mandatory testing either before or during their employment, unlike in the United States. In addition, Ontario drivers who hold a prescription for medical marijuana may operate a commercial vehicle with marijuana present in their system as long as they are not legally impaired, unlike those who use it recreationally. In contrast, Metrolinx has banned all marijuana use, including medical use, for its train and bus operators and Transport Canada has also banned all marijuana use, including medical use, for flight crews and flight controllers. There is no exception for commercial vehicle drivers using medical marijuana in the United States. From 2014 to 2018, 244 collisions involving commercial vehicle carriers listed the driver as under the influence of drugs or alcohol, 21% of which resulted in injury or a fatality.

- **Commercial vehicle licence plates are renewed annually by Service Ontario without proof the vehicle has passed an inspection.** We found that the Ministry does not require Service Ontario to ask for proof of a valid annual or semi-annual inspection certificate when renewing commercial vehicle licence plates. Therefore, the Ministry does not know how many commercial vehicles are operating without an up-to-date annual or semi-annual inspection certificate. The only way to catch these vehicles is for police or enforcement officers to review the certificate during a roadside inspection. During roadside inspections in 2017 and 2018—the first full years this information was tracked—officers found almost 7,500 instances where commercial vehicles did not have a valid annual or semi-annual inspection certificate.
- **Many MVIS garages are ordering excessive quantities of inspection certificates without investigation by the Ministry.** The MVIS inspection certificate ordering system has no automated controls to flag excessive ordering of inspection certificates. Excessive

ordering creates the risk that garages could be distributing or selling inspection certificates they order but do not need, or are issuing certificates without actually inspecting vehicles. Our analysis of orders made by MVIS garages revealed that many seem to be ordering far more than they could be issuing based on the number of registered mechanics they have. For instance, 211 garages ordered over 528 certificates per licensed mechanic during 2018, which is 10 times the amount ordered by the average garage.

## Overall Conclusion

Our audit concluded that the Ministry of Transportation does not have fully effective and efficient processes and systems to consistently carry out safety programs that promote and enforce the operation of commercial vehicles in compliance with legislative and policy requirements that protect the safety of Ontario's road users.

We found that Ministry enforcement officers collectively did not complete the Ministry's targeted number of inspections per officer in each of the last five years and that there were significant inconsistencies in the rates that officers laid charges for road safety violations between Ministry districts.

We also found that the number of roadside inspections conducted by the Ministry declined by 22% between 2014 and 2018, and that over this same period of time the Ministry removed fewer unsafe vehicles and drivers from Ontario's roads. The Ministry also laid fewer charges against carriers and drivers for road safety violations, even though the Ministry's research indicates that laying charges during roadside inspections can prevent 25% or more of the collisions that inspected carriers may otherwise have been involved in. In addition, we found that carrier safety ratings calculated by the Ministry are not always accurate, and that Ministry enforcement actions, such as carrier facility audits, are not always focused on the riskiest carriers. Furthermore, we found that the Ministry

does not effectively monitor and consistently take action to address high-risk MVIS garages.

Our audit also concluded that the Ministry does not have efficient and effective processes to measure and report on the effectiveness of commercial vehicle safety programs. For example, the Ministry has just two performance indicators that measure road safety in Ontario and only one of these indicators is specific to commercial vehicles—an indicator that measures inspection compliance during an annual three-day inspection initiative.

This report contains 19 recommendations, consisting of 51 action items, to address our audit findings.

## OVERALL MINISTRY RESPONSE

The Ministry of Transportation appreciates the work of the Auditor General and welcomes the recommendations on how to improve the Commercial Vehicle Safety and Enforcement Program (Program). We agree with all the recommendations and are committed to implementing them as quickly as possible and will report back regularly on our progress.

The recommendations within this report build upon the continuous improvement the Ministry has been focused on with industry and enforcement partners to act on internal research of truck safety and oversight.

We are also considering the important role technology will play as we develop tools and data to drive efficiencies in operational delivery such as the subscription-based Drivewyze program to increase officer focus on underperforming and unknown carriers.

In addition, the Program is piloting risk-based screening tools at four truck inspection stations to improve the effectiveness and efficiency of existing commercial vehicle enforcement operations. We have begun work consistent with many of the recommendations, including transformation of our Motor Vehicle Inspection Station (MVIS) program, a comprehensive review of

the Commercial Vehicle Operators Registration (CVOR) program as well as a program review of our commercial vehicle enforcement operations.

Ontario represents in excess of 40% of Canada's trucking activities; to help improve Ontario's safety record the Ministry has also introduced new safety initiatives such as Entry Level Training for new truck drivers, in place in Ontario since 2017 and being leveraged to develop a Canada-wide model.

The Ministry recognizes there are further opportunities to increase value for the Program by building on current efforts to review, monitor and update programs; detect and deter unsafe practices; and leverage the development of strong performance measures to ensure the Program is achieving its objectives.

## 2.0 Background

### 2.1 Overview

The Ministry of Transportation (Ministry) is responsible for administering Ontario's *Highway Traffic Act* (Act), which regulates all drivers, vehicles and roadways in Ontario. The Ministry has a mandate to move people and goods safely, efficiently and sustainably to improve Ontarians' quality of life and support a globally competitive economy. Its Road User Safety Division (Division) focuses on improving safety and security for all road users. The Division's activities include the regulation and enforcement of safety standards for commercial vehicles (trucks and buses) operating in Ontario (see **Section 2.2.1**).

In the five years from 2014/15 to 2018/19, the Ministry spent over \$200 million on commercial vehicle enforcement, including \$39.4 million in the 2018/19 fiscal year.

Individuals and businesses that operate commercial vehicles in Ontario, known as "operators" or "carriers," are required to register with the

Ministry and to renew their registration annually or bi-annually, depending on their safety record. This requirement also applies to out-of-country carriers, such as from the United States and Mexico, whose commercial vehicles travel into Ontario. In 2018, there were about 60,000 carriers registered to operate in the province, and over 290,000 registered commercial vehicles.

## 2.2 Role of the Ministry

The Ministry maintains 32 fixed roadside inspection stations along Ontario highways. It also utilizes approximately 70 temporary roadside inspection stations—paved areas on the side of provincial highways—where officers set up temporary inspection checkpoints. Ministry enforcement officers perform inspections of commercial vehicles and their drivers at these roadside inspection stations. In addition to potential roadside inspections, all large trucks registered in Ontario must be inspected and safety-certified annually (semi-annually in the case of buses), by a licensed mechanic at one of almost 13,000 Ministry-licensed Motor Vehicle Inspection Stations.

The Ministry also has a rating system for monitoring the safety performance of registered carriers. The system uses a formula based on roadside inspection results, collisions, convictions, and audits of the carrier's place of business. A number of intervention options are available to the Ministry when carriers have a poor safety rating, including warning letters, in-person interviews, facility audits, and sanctions up to and including revocation of the carrier's right to operate in Ontario.

### 2.2.1 Road User Safety Division

The key objective of the Ministry's Road User Safety Division (Division) is to reduce death and injury on Ontario roads by developing, promoting and participating in road user safety programs. The Division's programs to regulate commercial vehicles

operating in Ontario and to enforce applicable safety standards include the following activities:

- conduct roadside inspections of commercial vehicles and driver records in accordance with North American Commercial Vehicle Safety Alliance (CVSA) standards (see **Section 2.5.1**);
- monitor the safety ratings of commercial vehicle carriers and take action to improve them (see **Section 2.5.2** and **Section 2.5.3**);
- perform risk-based facility audits of carriers that can include an examination of the carrier's vehicle maintenance records, driver log books and trip documentation (see **Section 2.5.4**);
- develop safety education for commercial vehicle drivers, including mandatory training for new drivers applying for a Class A licence (see **Section 2.6.2**);
- monitor and investigate Motor Vehicle Inspection Stations, which inspect and safety certify commercial vehicles (see **Section 2.7**); and
- conduct performance measurement and reporting (see **Section 2.8**).

## 2.3 Commercial Vehicle Collision Statistics and Trends

### 2.3.1 Commercial Vehicle Collision Statistics

In the ten years from 2008 to 2017, commercial vehicles (large trucks and buses) were involved in over 182,000 collisions in Ontario. The collisions resulted in almost 44,000 injuries and 1,180 fatalities, with no obvious year-over-year trend. Commercial vehicles were at-fault in 46% of these collisions, including 33% of collisions that resulted in a fatality, whether due to the driver's actions or the vehicle's condition. **Appendix 1** provides detailed commercial vehicle collision statistics.

Compared with an average motor vehicle accident, collisions involving commercial vehicles are more likely to result in a fatality. From 2008 to

2017, 1,033 collisions involving commercial vehicles resulted in at least one fatality, representing 0.57% of all commercial vehicle collisions. That rate rises to 0.65% if only large trucks are included and buses are excluded. In comparison, 0.23% of passenger vehicle collisions resulted in at least one fatality, indicating that collisions involving large trucks were almost three times more likely to result in a death. It is also noteworthy that the majority of people killed in collisions involving commercial trucks are occupants of other vehicles.

### 2.3.2 Overall Road Safety and Commercial Vehicle Safety Trends

Transport Canada data indicates that, on average, between 2013 and 2017 Ontario had the lowest annual fatality rate per billion vehicle-kilometres for all motor vehicles among Canadian provinces, and had a lower injury rate per billion vehicle-kilometres than the country as a whole (see **Figure 1** and **Figure 2**). Ontario's fatality rate of 4.0 and injury rate of 406 per billion vehicle-kilometres was below the national fatality rate and injury rate of 5.1 and 435 respectively. In addition, Ontario consistently maintained a lower fatality and injury rate per 10,000 registered motor vehicles than each of Canada and the United States in the ten years from 2008 to 2017 as illustrated in **Figure 3** and **Figure 4**.

However, when examining commercial vehicles only, **Figure 5** and **Figure 6** show that in the majority of the ten years from 2008 to 2017, Ontario maintained higher fatality and injury rates than each of Canada and the United States in collisions per 10,000 registered commercial vehicles.

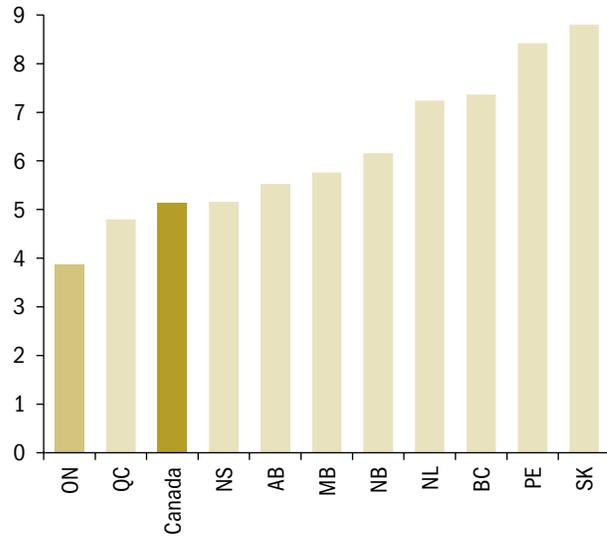
## 2.4 Commercial Vehicles and Operators

### 2.4.1 Commercial Vehicles

The *Highway Traffic Act* (Act) uses gross vehicle weight to classify trucks as commercial. Gross

**Figure 1: Average Annual Fatalities per Billion Vehicle-Kilometres<sup>1</sup> by Province (All Motor Vehicles), 2013–2017<sup>2</sup>**

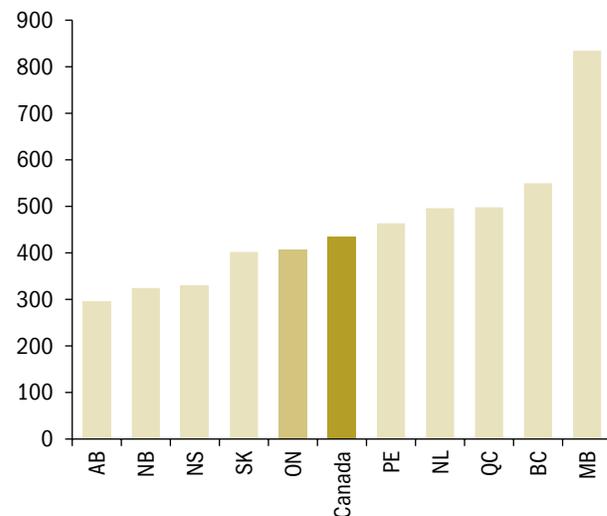
Source of data: Transport Canada



1. Vehicle-kilometres in Transport Canada's data are estimates.
2. 2017 data included in the average is preliminary for Ontario and Alberta. 2017 data included in the average is estimated for New Brunswick.

**Figure 2: Average Annual Injuries per Billion Vehicle-Kilometres<sup>1</sup> by Province (All Motor Vehicles), 2013–2017<sup>2</sup>**

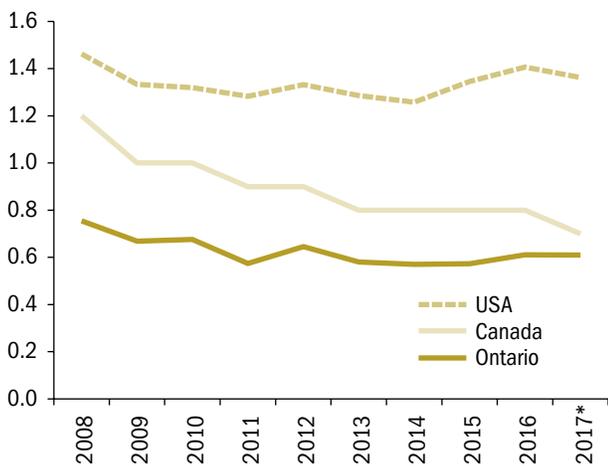
Source of data: Transport Canada



1. Vehicle-kilometres in Transport Canada's data are estimates.
2. 2017 data included in the average is preliminary for Ontario and Alberta. 2017 data included in the average is estimated for New Brunswick and Nova Scotia.

**Figure 3: Fatalities per 10,000 Registered Vehicles (All Motor Vehicles), 2008–2017**

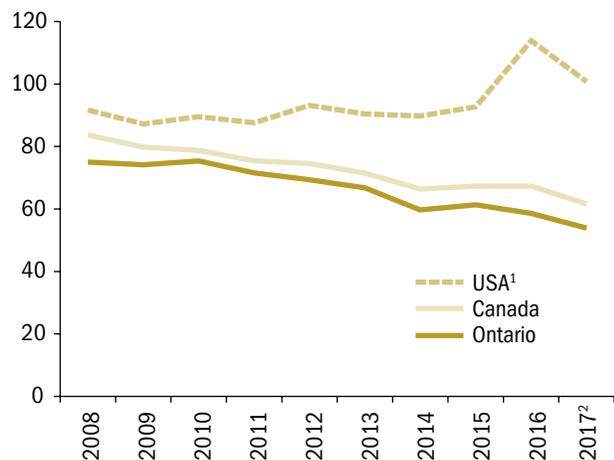
Sources of data: Ministry of Transportation, Transport Canada and Federal Motor Carrier Safety Administration (USA)



\* 2017 data for Ontario and Canada is preliminary.

**Figure 4: Injuries per 10,000 Registered Vehicles (All Motor Vehicles), 2008–2017**

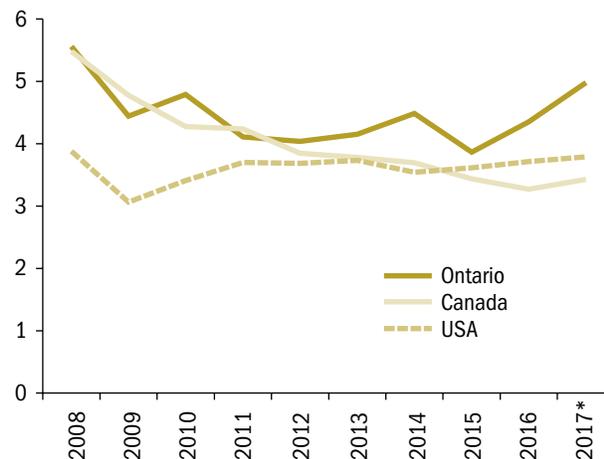
Sources of data: Ministry of Transportation, Transport Canada and Federal Motor Carrier Safety Administration (USA)



1. U.S. collision injury statistics are an estimate based on sampling performed by the National Highway Traffic Safety Administration. Due to a system change in 2016, the Federal Motor Carrier Safety Administration cautions that analysis of this data before and after the system change should be performed with caution.
2. 2017 data for Ontario and Canada is preliminary.

**Figure 5: Fatalities in Collisions Involving Commercial Vehicles per 10,000 Registered Commercial Vehicles, 2008–2017**

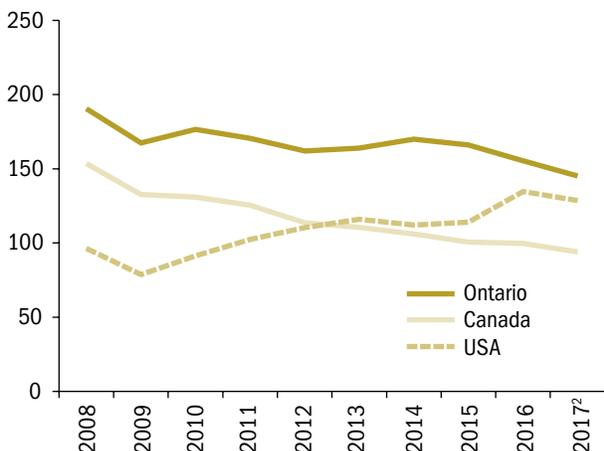
Sources of data: Ministry of Transportation, Transport Canada and Federal Motor Carrier Safety Administration (USA)



\* 2017 data for Ontario and Canada is preliminary. 2017 Canada data includes estimates for New Brunswick.

**Figure 6: Injuries in Collisions Involving Commercial Vehicles per 10,000 Registered Commercial Vehicles, 2008–2017**

Sources of data: Ministry of Transportation, Transport Canada and Federal Motor Carrier Safety Administration (USA)



1. U.S. collision injury statistics are an estimate based on sampling performed by the National Highway Traffic Safety Administration. Due to a system change in 2016, the Federal Motor Carrier Safety Administration cautions that analysis of this data before and after the system change should be performed with caution.
2. 2017 data for Ontario and Canada is preliminary. 2017 Canada data includes estimates for New Brunswick and Nova Scotia.

weight is the weight of the loaded truck and any trailers that the truck is towing. The following are considered commercial vehicles under the Act:

- trucks and trailers with a gross weight over 4,500 kg;
- buses with a seating capacity of 10 or more passengers; and
- tow trucks—regardless of weight.

There are exceptions under the Act for some vehicles that meet the above definition but are not commercial in nature, including ambulances, fire trucks, hearses and motor homes used for personal purposes.

Between 2008 and 2018, the average age of commercial trucks registered in Ontario ranged from a high of 10.0 years in 2010 to a low of 8.6 years in 2018.

### 2.4.2 Commercial Vehicle Operator Registration

An operator is the individual or business responsible for the operation of a commercial motor vehicle under the Act. Operators are more commonly referred to as “carriers.” Carriers that operate vehicles in Ontario that meet the definition of a commercial motor vehicle must register with the Ministry and obtain a valid Commercial Vehicle Operator’s Registration (CVOR) certificate. This includes vehicles plated in Ontario, the United States and Mexico. Each carrier is responsible for the operation of their commercial vehicle fleet, including the conduct of drivers and the mechanical fitness of vehicles. About 60,000 carriers are registered in Ontario in the CVOR system.

Trucks or buses plated in another Canadian province or territory that meet the definition of a commercial vehicle must comply with all provincial standards for commercial vehicles when operating in Ontario. However, they do not need to obtain a CVOR certificate. Instead, each province shares information on collisions, convictions and inspections for use in the registration system of the carrier’s home province.

## 2.5 Carrier Oversight and Enforcement

### 2.5.1 Roadside Inspections

One of the Ministry’s most important enforcement activities for ensuring commercial vehicle safety is roadside inspections. Inspections of both commercial vehicles and driver records are conducted at the Ministry’s 32 fixed roadside inspection stations, as well as at approximately 70 temporary roadside inspection stations—paved areas on the side of provincial highways where officers set up temporary inspection checkpoints. In addition, enforcement officers can conduct roadside inspections while on patrol. The Ministry divides roadside inspections and other enforcement activities into five regions across the province. See **Appendix 2** for a map of the Ministry’s regions and 32 fixed inspection stations.

Roadside inspections are conducted in accordance with North American Commercial Vehicle Safety Alliance (CVSA) standards. These standards pertain to vehicle weight, load security, and mechanical and driver fitness. Vehicles with critical defects may be impounded, and unsafe drivers may have their licence suspended. Enforcement officers complete training delivered by the Ministry on inspecting commercial vehicles in accordance with CVSA standards.

To conduct roadside inspections, the Ministry employs about 230 enforcement officers, in 18 Ministry districts across the province. See **Appendix 3** for a list of districts, regions, and the number of officers and inspections performed in each. In addition to the Ministry’s enforcement officers, 50 police officers at 15 municipal police forces, and 81 Ontario Provincial Police (OPP) officers also completed CVSA training and conducted roadside inspections in 2018. **Figure 7** provides a breakdown of inspections conducted by Ministry enforcement officers, the OPP, and municipal police in 2018.

Commercial vehicles selected for inspection are typically subject to one of the following three levels of CVSA inspection:

**Figure 7: 2018 Roadside Commercial Vehicle Inspections by Agency**

Source of data: Ministry of Transportation

Enforcement Agency	% of Inspections	Inspections
Ministry of Transportation*	91.1	88,670
Ontario Provincial Police	4.5	4,420
Municipal Police Services	4.4	4,250
<b>Total</b>	<b>100.0</b>	<b>97,340</b>

\* From 2014 to 2018 the proportion of inspections completed by the Ministry ranged from a high of 94.5% in 2015 to a low of 91.1% in 2018.

- **Level 1** – Otherwise referred to as the “North American Standard” inspection, is the most comprehensive and time-consuming inspection. The vehicle, load and driver are all thoroughly examined for violations or out-of-service defects.
- **Level 2** – Otherwise referred to as a “Walk Around” inspection, is the most commonly performed inspection type in Ontario. It involves an inspection of the driver’s documentation (such as driver’s licence and hours of service) and a walk-around inspection of the vehicle and load to observe any obvious safety violations (without physically getting under the vehicle). A Level 2 inspection is escalated to a Level 1 inspection if mechanical defects are discovered or suspected.
- **Level 3** – Is a document-focused inspection and involves an inspection of the driver’s licence, hours of service, annual vehicle inspection certificate, vehicle permits and seat belts. A Level 3 inspection can occur when there are no concerns about the vehicle.

Vehicles with defects and drivers who have committed violations that pose an immediate safety risk may be taken off the road and placed out-of-service until the violation or defect is corrected. These out-of-service defects and violations found during an inspection are recorded and included on the carrier’s safety record (discussed in **Section 2.5.2**). In cases where an inspection detects violations,

enforcement officers may issue a warning or charge the driver or the carrier based on their judgment. If a defect is considered critical, licence plates may be seized and the vehicle may be impounded. **Figure 8** provides examples of defects and violations that should result in vehicles being placed out-of-service or impounded.

## 2.5.2 Carrier Safety Ratings

The Ministry’s Registration and Licensing System Ontario automatically assesses each carrier’s safety rating using Commercial Vehicle Operator Registration (CVOR) record data. This includes collisions, convictions (against the carrier or someone driving for the carrier), and out-of-service violations and defects discovered during roadside inspection. These events result in violation points against the carrier’s safety rating.

Collision violation points are assigned only if the carrier or the carrier’s driver is determined to be at-fault. The points consider the severity of the collision, increasing the violation points assigned to the carrier if a collision resulted in an injury, and assigning further points if the collision resulted in fatality. Similarly, conviction violation points consider the severity of the charge for which the carrier and its driver is convicted.

The Ministry calculates a violation rate for each carrier by comparing the carrier’s violation points over the previous 24 months to a carrier-specific threshold for violation points that is based on the number of kilometres travelled (the threshold increases as kilometres travelled increase). Carrier safety ratings can be obtained free of charge on a Ministry website. Additional information, such as detailed carrier safety records, can be obtained from the Ministry for a fee by interested parties. According to the Ministry, users of this information include insurance companies, financial institutions and shippers to make informed decisions when choosing a carrier.

**Figure 8: Vehicle Defects and Results**

Source of data: Ministry of Transportation

Severity of Defect	Result	Example
Out-of-service defect	Driver, vehicle and/or cargo placed out of service until the condition(s) or defect(s) are corrected or fixed.	<ul style="list-style-type: none"> <li>Leaking, flat, or worn-out tires.</li> <li>Insecure loads or cargo.</li> <li>Invalid driver's licence.</li> </ul>
Critical defect	Licence plates and inspection stickers removed from vehicle. Up to a \$20,000 fine. Vehicle is impounded: <ul style="list-style-type: none"> <li>15 days for first offence</li> <li>30 days for second offence</li> <li>60 days for third offence</li> </ul>	<ul style="list-style-type: none"> <li>Brake fluid leaking combined with a brake drum or rotor cracked, broken or missing.</li> <li>Frame of vehicle broken or bent and is improperly contacting another part of the vehicle.</li> </ul>

### 2.5.3 Carrier Interventions and Sanctions

Based on a carrier's violation rate, the Ministry can undertake the following interventions:

- **Warning letters** – The most common and least serious type of carrier intervention.
- **Facility audits** – Audits conducted at the carrier's premises by Ministry enforcement officers.
- **Interviews** – The carrier is invited to attend an interview with the Ministry to discuss their non-compliance. The Ministry may require the carrier to develop an action plan for improvement.
- **Sanctions** – Sanctions available to the Ministry include restrictions on the number of commercial vehicles the carrier may operate, plate seizure, suspension of the carrier's operating privileges and permanent cancellation of the carrier's Commercial Vehicle Operator Registration certificate. A carrier can receive a Notice of Sanction, typically when exceeding 100% of their overall violation rate. The corporate officer or senior official of the company is given the opportunity to show cause to the Ministry as to why sanctions should not be imposed.

**Figure 9** illustrates the interventions and sanctions the Ministry may undertake when a carrier's violation rate meets a predetermined level.

**Figure 9: Carrier Violation Rates and Ministry Interventions**

Source of data: Ministry of Transportation

Violation Rate (%)	Carrier Safety Rating <sup>1</sup>	Intervention/Sanction
<15	Excellent	None
15-35	Satisfactory	None
35-50	Satisfactory	Warning letter
50-70	Satisfactory	Facility audit
70-85	Conditional	Facility audit
85-100	Conditional	Interview
>100 <sup>2</sup>	Unsatisfactory	Sanctions

1. If a carrier has had a facility audit, their safety rating is also dependent on audit results as described in **Appendix 4**.
2. Violation rate is calculated as violation points for collisions, convictions and inspections as a percentage of a threshold calculated by the Ministry of Transportation for each carrier as described in **Section 2.5.2**. It is therefore possible to exceed 100%.

### 2.5.4 Facility Audits

The Ministry has the authority under the Act to initiate a facility audit of a carrier at any time. In 2018, 25 Ministry enforcement officers completed 476 facility audits. Typically, a facility audit is triggered when a carrier's violation rate (discussed in **Section 2.5.2**) exceeds 50%. The Ministry may also undertake a facility audit at the request of a carrier that wants to improve its safety rating, or in response to complaints it has received about a carrier. See **Appendix 4** for a description of the standard procedures performed during a facility audit and a

description of the scores that can be assigned to a carrier at their conclusion.

If a carrier fails its facility audit, the carrier's safety rating will be changed to conditional. The carrier safety rating remains as conditional until it passes a subsequent audit.

## 2.6 Driver Regulations and Training

### 2.6.1 Driver Licensing

The *Highway Traffic Act* (Act) governs Ontario's commercial vehicle driver licensing. The type of licence required to drive a commercial vehicle in Ontario depends on the weight of the vehicle driven, the weight of a towed vehicle and the type of vehicle driven; for example, freight versus passenger. Generally, a Class A licence is required for tractor-trailer combinations, Class D for other large trucks, and a regular passenger vehicle Class G licence is sufficient for smaller commercial vehicles. **Figure 10** outlines the different classes of licences needed to operate commercial vehicles.

Individuals in Ontario who already hold a Class G licence can obtain an A, C, D or F commercial class driver's licence by completing a

written knowledge test and a road test at DriveTest centres. Drivers must pass a separate knowledge and practical test in order to operate a vehicle with air brakes, in addition to holding the appropriate driver's licence. This separate certification is known as a "Z" endorsement. For example, a Class A licence holder who is certified to operate vehicles with air brakes holds an AZ licence. The Ministry licenses a private-sector organization to operate 95 DriveTest centres across Ontario. In addition, the Ministry approves colleges, government organizations, safety organizations and private businesses, including carriers, to provide training and deliver road and knowledge tests to drivers under the Driver Certification Program.

### 2.6.2 Mandatory Entry-Level Training

The Ministry has developed a driver education and training program called Mandatory Entry-Level Training (MELT), which came into effect July 1, 2017. It must be completed by all drivers applying for a Class A licence before they take their road test.

MELT is delivered by two types of organizations:

**Figure 10: Commercial Vehicle Driver's Licences**

Source of data: Ministry of Transportation

Driver's Licence Class	Vehicle Type	Mandatory Entry-Level Training	Commercial Vehicle Example	Can Also Operate
A	Tractor-trailer combination with towed trailers >4,600 kg	✓	Tractor-trailer 	Class D and G
C	Bus >24 passenger capacity	×	Coach bus 	Class D, F, and G
D	Vehicle >11,000 kg gross weight provided the towed vehicle is not >4,600 kg	×	Dump truck 	Class G
F	Bus with up to 24-passenger capacity	×	Small bus 	Class G
G	Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the vehicle towed is not >4,600 kg	×	20ft Cube truck 	None

Note: Classes B and E relate to school-purpose vehicles and are not the focus of this audit. The Office of the Auditor General of Ontario audited student transportation in 2015.

- **Private career colleges:** 91 private career colleges deliver MELT at 130 campuses in the province under the oversight of the Ministry of Colleges and Universities; and
- **Driver Certification Program:** 38 organizations are approved by the Ministry of Transportation to deliver MELT. The organizations include colleges, government bodies, safety groups and private businesses, including carriers.

The training consists of 36.5 in-class hours, 50 behind-the-wheel hours and 17 in-yard hours covering topics such as pre-trip inspection of the truck, for a total of 103.5 hours. Approximately 18,100 students had completed MELT as of August 1, 2019.

Ontario was the first Canadian jurisdiction with a mandatory training program for new tractor-trailer drivers. Alberta and Saskatchewan also have a program and Manitoba was establishing one at the time of our audit. The federal government announced in January 2019 that a Canada-wide national standard for entry-level training would be developed by 2020. The Ministry indicated it would update MELT to ensure alignment with the national standard where required.

## 2.7 Motor Vehicle Inspection Stations

The Ministry licenses qualified garage operators as Motor Vehicle Inspection Stations (MVIS). MVIS garages inspect vehicles and issue inspection certificates. In order to obtain a licence to operate an MVIS garage, an applicant must complete and submit an application to the Ministry and pass a site inspection by the Ministry.

MVIS garages that provide inspection certificates for commercial vehicles operate under the same licence as those that inspect regular passenger cars and must renew their licence annually. Almost 13,000 MVIS garages operate in Ontario, most of which are privately owned. MVIS garages must employ certified technicians (mechanics) in order to issue inspection certificates.

### 2.7.1 Inspection Certificates

MVIS garages purchase inspection certificates directly from the Ministry. Three types of certificates can be required for a commercial vehicle:

1. **Safety Standard Certificate** – Required when transferring a used vehicle to a new owner. Applies to both passenger and commercial vehicles.
2. **Annual Inspection Certificate** – Required for all commercial vehicles. Includes a sticker, which is affixed to the vehicle and can be inspected by enforcement officers during roadside inspections.
3. **Semi-Annual Inspection Certificate** – Required for all commercial buses. Includes a sticker, which is affixed to the bus and can be inspected by enforcement officers during roadside inspections.

In order to inspect a commercial vehicle, the mechanic must hold a certificate of qualification in the appropriate trade based on the particulars of the vehicle, such as weight and whether the vehicle has air brakes. For example, automotive service technicians, the same mechanics who work on passenger cars, can inspect smaller commercial vehicles without air brakes. A breakdown of technician types and the commercial vehicles they can inspect is in **Appendix 5**.

### 2.7.2 Monitoring of MVIS Garages

As of August 2019, the Ministry employed 31 enforcement officers who hold a mechanic's licence and are responsible for enforcing MVIS requirements. Ministry enforcement officers typically take enforcement action against MVIS garages in response to public complaints or if a problem is brought to their attention. Enforcement actions take the form of investigations and audits of MVIS garages, which are defined as follows:

- **Investigations** – Enforcement officers investigate a specific compliance issue. The findings of an investigation may trigger an audit.

- **Audits** – Enforcement officers visit the MVIS operating location and perform an audit to assess compliance with specific requirements under the Act.

Where the Ministry's enforcement officers find the MVIS garage to be non-compliant with requirements, the Ministry can issue warnings and lay charges. Where significant non-compliance is found, the Ministry has the power to revoke an MVIS garage's licence. When a licence is revoked, the MVIS garage has the opportunity to appeal to the Licence Appeal Tribunal, an independent, quasi-judicial provincial agency that resolves disputes concerning licensing activities regulated by the provincial government.

## 2.8 Performance Measurement

The Ministry uses two performance indicators to measure road safety performance. The description, results and our review of these indicators are discussed in **Section 4.7**.

### 3.0 Audit Objective and Scope

Our audit objective was to assess whether the Ministry of Transportation (Ministry), has efficient and effective processes and systems to:

- carry out safety programs that promote and enforce the operation of commercial vehicles in compliance with legislative and policy requirements established to protect the safety of Ontario's roads and users; and
- measure and report on the effectiveness of commercial vehicle safety programs designed to enhance public road safety.

In planning for our work, we identified the audit criteria (see **Appendix 6**) we would use to address our audit objective. These criteria were established based on a review of applicable legislation, policies and procedures, internal and external studies, and best practices. The Ministry's senior management

reviewed and agreed with the suitability of our objectives and associated criteria.

We conducted our audit between January 2019 and August 2019. We obtained written representation from Ministry management that, effective November 12, 2019, they had provided us with all the information they were aware of that could significantly affect the findings or the conclusion of this report.

We conducted the majority of our work at the Ministry's Road User Safety Division's Toronto head office and at its St. Catharines branch. We also visited and conducted audit work at three district offices: London, Kingston and North Bay. We selected them based on traffic rates, geographical coverage and inspection results. As well, we visited three roadside inspection stations and observed roadside inspections of commercial vehicles.

In addition, we met with stakeholders, including the Ontario Trucking Association, the Private Motor Truck Council of Canada, the Ontario Police Commercial Vehicle Committee and the Truck Training Schools Association of Ontario, to discuss their role in the industry and any concerns regarding commercial vehicle safety.

The scope of our audit included an analysis of policies and procedures, and relevant documents and reports, as well as detailed discussions with staff at the Division's head offices involved in the design, oversight and performance measurement of the Commercial Vehicle Safety and program. We also met with the Ministry's regional and district managers and supervisors responsible for overseeing enforcement officers in the districts we visited.

Although we reviewed and analyzed policies and procedures for the licensing and training of commercial vehicle drivers, we did not audit DriveTest, the Ministry-licensed, private-sector organization that conducts the majority of driver's licence testing in Ontario. We also did not audit the Ministry of Colleges and Universities, which is responsible for regulating private career colleges that deliver many driver-training programs.

At the time of our audit, Ministry collision data for the 2017 and 2018 calendar years was considered

preliminary. The Ministry explained that 2017 and 2018 collision data has not yet undergone full validation, including thorough review of fatality files from the Office of the Chief Coroner of Ontario, which the Ministry advised us can take up to two years to finalize. The use of preliminary collision data is consistent with Transport Canada practices. The most recent data available in Transport Canada's National Collision Database, which is publicly available, includes preliminary 2017 Ontario data provided by the Ministry. Therefore, we have included 2017 collision data throughout this report for the province as a whole. Where we use 2017 collision data, we note that it is preliminary.

## 4.0 Detailed Audit Observations

### 4.1 Roadside and Bus Terminal Inspections

#### 4.1.1 Fewer Charges Laid and Fewer Unsafe Vehicles Taken Off the Road Due to Declining Roadside Inspections

As illustrated in **Figure 11**, we found that the number of roadside inspections conducted by the Ministry steadily dropped by 22% from over 113,000 in 2014 to less than 89,000 in 2018. Over this same period, we also found that there had been an unplanned reduction of 19% in the total number of enforcement officers from 287 in 2014 to 233 in 2018 due to vacancies not being filled, despite the Ministry's efforts to recruit new officers.

We also noted that between 2014 and 2018, the Ministry removed 22% of all the commercial vehicles it inspected from the road for mechanical defects or driver violations. We calculated that if the Ministry had continued to conduct as many inspections between 2015 and 2018 as it had in 2014 (113,000), it would have performed over 46,000 additional inspections. With 22% of commercial vehicles removed from the road for

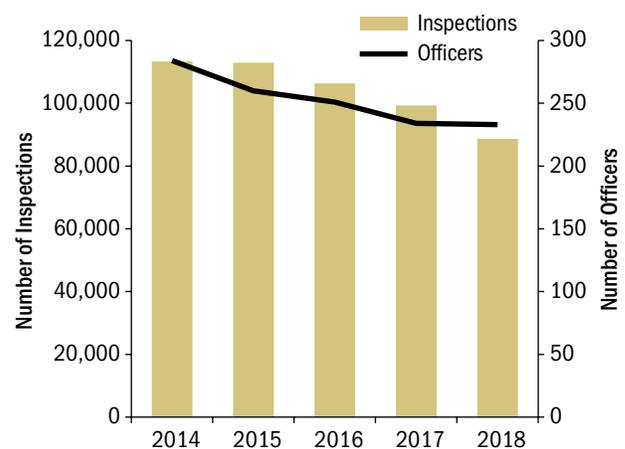
mechanical defects or driver violations, it could therefore have removed as many as 10,000 more unsafe commercial vehicles and drivers from Ontario's roads.

The decrease in Ministry-conducted roadside inspections over the last five years is concerning because Ministry studies and safety models from other jurisdictions show that there is a correlation between conducting roadside inspections and reducing commercial vehicle collisions, injuries and fatalities.

For example, the Roadside Intervention Effectiveness Model developed by the US Federal Motor Carrier Safety Administration consistently demonstrates the effectiveness of roadside inspections in preventing collisions by detecting and correcting violations. For 2013 (the most recent data available), the model estimated that roadside inspections prevented almost 10,000 crashes, over 6,000 injuries and 319 fatalities in the United States due to violations found and corrected. In addition, a draft Ministry study on commercial truck safety oversight concluded that mechanical defects detected during roadside inspections were predictive of a carrier's collision involvement in future periods and that the presence of defects at inspection may be indicative of a carrier's overall safety culture. The Ministry study stated consideration

**Figure 11: Number of Enforcement Officers and Roadside Inspections, 2014–2018**

Source of data: Ministry of Transportation



should be given to ensuring as many carriers as possible are subject to unplanned roadside inspections.

### Ministry Does Not Have a Strategy to Address Shortfall in Number of Enforcement Officers

The Ministry produced a draft internal report in 2012 that it presented to its senior management, titled *Enforcement Gaps in Ontario*. The report highlighted that the Ministry had an insufficient number of enforcement officers to deliver roadside inspections, MVIS garage investigations, facility audits and bus terminal inspections. The Ministry informed us that, despite efforts to hire additional enforcement officers in 2015, 2017 and 2018, it had been unsuccessful in filling enough positions to offset retirements and officers leaving for other opportunities. Some reasons included that positions in some geographical areas were difficult to fill, there had been more retirements than anticipated, and one recruitment campaign was deferred to later a date. In the fall of 2018, the Ministry also identified that an additional 21 enforcement officers will be reaching their retirement date by March 2020. However, we found that the Ministry has not updated its 2012 report and does not have a long-term strategic plan to identify and hire the number of enforcement officers that may be needed to conduct a sufficient number of roadside inspections.

Based on 2011 traffic data, the Ministry's report calculated that 264 enforcement officers were required full-time to perform strictly roadside and bus terminal inspections and MVIS audits. We compared this target with the actual number of enforcement officers who were assigned to those duties between 2014 and 2018. We found that the number of such enforcement officers actually decreased (see **Figure 12**). For 2018, we found that the Ministry employed approximately 34% fewer enforcement officers (175), excluding supervisors, facility auditors and trainees, than the target in the report (264).

The Ministry's report was presented to its senior leadership in 2013. Highlights included:

- enforcement officer staffing in the majority of districts was below minimum levels (as calculated in the report);
- targets for the percentage of commercial vehicle traffic inspected were not being achieved in the majority of districts; and
- enforcement officers in most districts were not able to adequately patrol areas and roads away from fixed inspection stations.

The report's target is based on 2011 traffic data, and since 2011, the Ministry estimates truck traffic on Ontario highways has increased by 9%, suggesting that an even larger number of enforcement officers may be needed.

### Ministry Does Not Have Provincial Target for Total Roadside Inspections, Enforcement Officers Not Meeting Individual Productivity Targets

Our audit found that the Ministry has not established a formal target for the total annual number of roadside inspections needed to address commercial vehicle safety in Ontario. Although the Ministry did establish productivity targets in 2012 for the number and type of roadside inspections it expects its enforcement officers to individually conduct each year, we found that most enforcement officers have not met these targets in any of the last five years. However, the Ministry had not analyzed the impact that missing productivity targets had on the safety of commercial vehicles and Ontario's road users, and it had not identified the specific steps needed for officers to meet them.

In 2012, the Ministry set targets for enforcement officers who perform roadside inspections in all regions to complete at least 600 inspections per year, based on allocating 60% of their available time to completing inspections. The Ministry set a target for at least 500 of these inspections to be a combination of Level 1 and Level 2 inspection, and at least 120 of the 500 inspections to be Level 1 (described in **Section 2.5.1**). The remaining 100 inspections can be of any level.

**Figure 12: Enforcement Officer Staffing Vacancies (Excluding Supervisors, Facility Auditors and Trainees) 2014–2018**

Source of data: Ministry of Transportation

	2014	2015	2016	2017	2018
Actual # of officers	217	197	182	175	175
Target # of officers (based on 2011 traffic)	264	264	264	264	264
<b>Vacancies</b>	<b>(47)</b>	<b>(67)</b>	<b>(82)</b>	<b>(89)</b>	<b>(89)</b>

**Figure 13: Percentage of Enforcement Officers Meeting Annual Individual Roadside Inspection Targets, 2014–2018**

Source of data: Ministry of Transportation

Annual Target	2014	2015	2016	2017	2018
>600 inspections <sup>1</sup> Levels 1, 2 and 3	28	43	52	47	36
>120 Level 1 <sup>2</sup>	40	51	55	51	45
>500 Level 1 and 2 <sup>3</sup>	49	59	60	54	41

1. The target of 600 inspections includes all inspection types.
2. Level 1: Otherwise referred to as the “North American Standard” inspection, is the most comprehensive and time-consuming inspection. The vehicle, load and driver are all thoroughly examined for violations or out-of-service defects.
3. Level 2: Otherwise referred to as a “Walk Around” inspection, is the most commonly performed inspection type in Ontario.

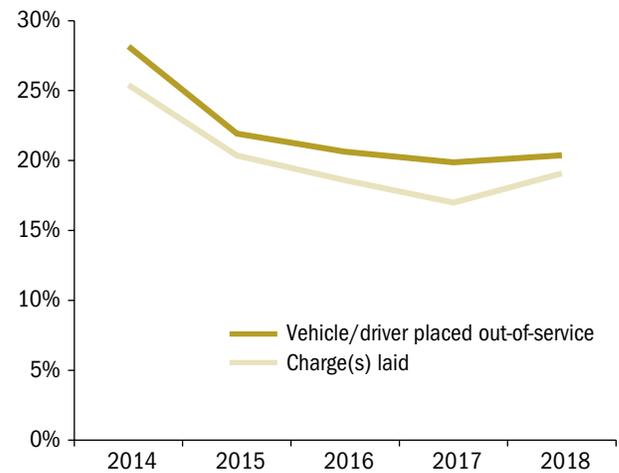
As illustrated in **Figure 13**, during the five-year period from 2014 to 2018, enforcement officers did not meet these targets. In 2018, productivity was particularly low as only 36% of enforcement officers achieved the 600-inspection target, and only 45% completed at least 120 Level 1 inspections.

The Ministry told us that failing to meet targets is considered during an individual enforcement officer’s annual performance evaluation and that in many cases the reason that an individual enforcement officer missed targets was due to a medical leave or medical accommodations. The Ministry also noted that some of these officers had other responsibilities, including MVIS garage enforcement, limiting their available time for inspections. However, the Ministry had not analyzed the impact that missing its targets had on the safety of commercial vehicles and Ontario’s road users, and it had not identified the specific steps needed to meet its overall inspection targets.

We also found that in the inspections that enforcement officers were conducting, they were laying fewer charges and placing fewer vehicles

**Figure 14: Percentage of Inspections Resulting in a Charge or Vehicle Out-of-Service, 2014–2018**

Sources of data: Ministry of Transportation



and drivers out-of-service. **Figure 14** shows the percentage of inspections that resulted in a charge or vehicle/driver placed out-of-service from 2014 to 2018. When enforcement officers find violations during roadside inspections, they have the opportunity to lay a charge. **Figure 15** shows that officers

**Figure 15: Roadside Inspection, Violation and Charge Counts, 2014–2018**

Source of data: Ministry of Transportation

	Inspections	Inspections with Violations	Inspections with Charges	Charge Rate per Inspection with Violation (%)
2014	113,400	62,800	28,800	46
2015	112,900	53,000	23,000	43
2016	106,300	49,400	19,800	40
2017	99,300	44,500	16,900	38
2018	88,700	41,700	16,900	41

continued to find a significant number of violations in the inspections they performed from 2014 to 2018, but the proportion of instances where they laid charges decreased from 46% in 2014 to 41% in 2018.

The Ministry's draft truck safety oversight study concluded that the collision prevention associated with laying charges during a roadside inspection is substantial, preventing a minimum of 25%, and possibly up to half the collisions that inspected carriers would otherwise be involved in. The study stated the Ministry should consider encouraging officers to lay charges during inspection wherever warranted.

### RECOMMENDATION 1

To increase the effectiveness of roadside inspections in preventing future collisions and improving commercial vehicle safety, we recommend that the Ministry of Transportation:

- study and determine the optimal number of total annual roadside inspections needed to address commercial vehicle safety in Ontario and establish a target;
- create a province-wide staffing plan for enforcement officers based on a target sample size of commercial vehicle traffic to be inspected;
- evaluate options and implement actions to improve enforcement officer recruitment;
- regularly review whether enforcement officers are meeting productivity targets for roadside inspections and take corrective action when they are not; and

- implement the recommendations of its truck safety oversight study by formally encouraging enforcement officers to lay charges during inspections where possible and warranted.

### MINISTRY RESPONSE

The Ministry agrees with this recommendation and it will be incorporated into the work we currently do to ensure that roadside inspections are done effectively.

The Ministry is undertaking a Commercial Vehicle Enforcement Program review to fully consider and implement all functions that drive safety improvements, including post intervention charges, setting targets for inspection volumes and distribution throughout the province, which can then be used to develop long-term staffing plans.

The enforcement review is designed to undertake an assessment of the Program mandate, deliverables and outcomes and those results will be considered, along with the introduction of new technology, in determining the optimal delivery strategy of the program. The review will lead to the development of a provincial staffing plan that considers officer retention, along with appropriate staff levels and geographic officer distribution.

While this work is under way, the enforcement program will review current recruitment

strategies seeking opportunities to streamline the hiring processes that maintain required staffing levels and enhance management oversight and documentation related to enforcement officer productivity. Management practices will ensure officers have the support, training and tools needed to meet performance expectations, and will take corrective action when necessary to effectively and efficiently meet the program output requirements that deliver safety improvements.

The Ministry is continuously looking to modernize and improve public safety. The Ministry has recently undertaken internal research to develop a Truck Safety and Oversight Study. Once completed, this study will provide us with a guideline for improvements. The Ministry will work toward implementing the study recommendations, including formally encouraging enforcement officers to lay charges during inspections where possible and warranted.

#### 4.1.2 Roadside Inspection Enforcement is Not Consistent across the Province, Impacting Effectiveness of Inspections in Reducing Collisions

We found significant differences across the province on the rate at which officers lay charges and place vehicles out-of-service during roadside inspections. For example, in 2018, one district laid charges in over 30% of the roadside inspections they conducted, while another laid charges in fewer than 8%. Ministry research indicates that laying charges during a roadside inspection can prevent collisions, and can possibly prevent half the collisions in which inspected carriers may be involved. **Figure 16** illustrates the differences in the percentage of inspections where a charge was laid compared with the percentage of inspections where a violation was found, by district.

Differences in types of commercial vehicle traffic, such as long haul, cross-border, or local, could affect the amount of infractions that officers see in

different districts. However, we found the districts that laid the fewest charges per inspection had many opportunities to lay more charges. Officers in the five districts with the lowest percentage of inspections where a charge was laid identified violations in 43% of their inspections, near the average for all districts of 46%. However, these five districts collectively laid charges in just 12% of roadside inspections.

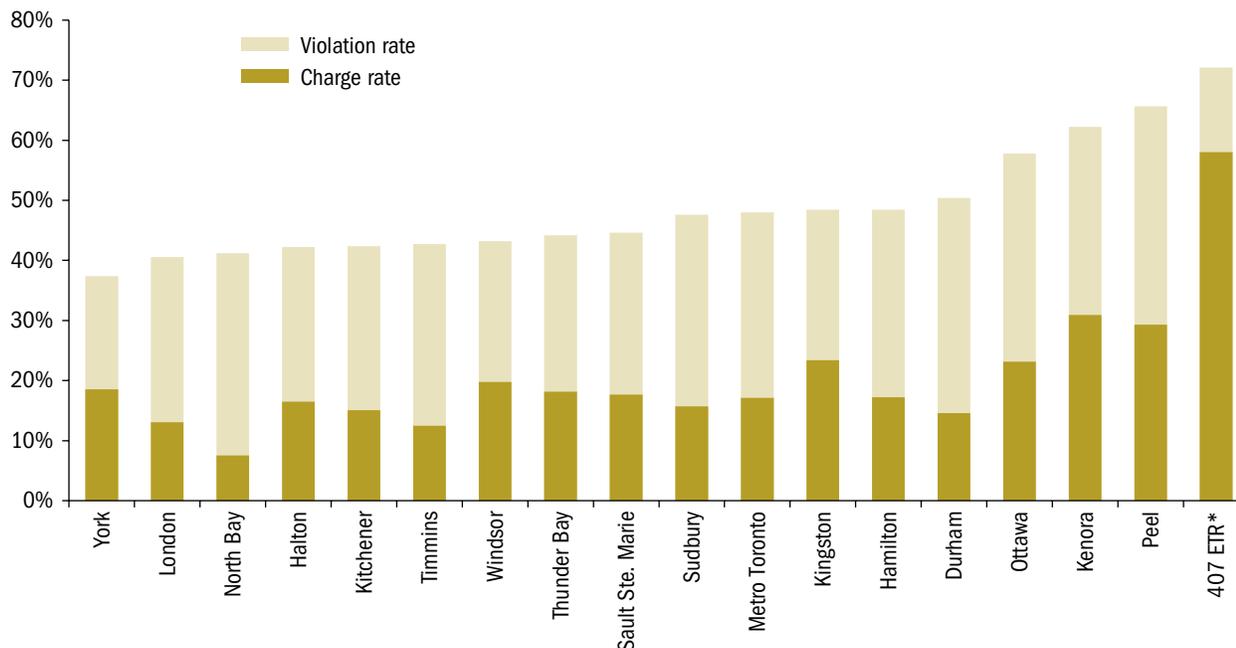
Where vehicle defects and driver violations were discovered at inspection that led to a vehicle being taken off the road and placed out-of-service, we found that the variance between districts was smaller though still significant, ranging from 13% to 28%. However, we found that there were very large differences between districts and individual officers in the rates that they impounded vehicles for critical defects. For example, in 2018 three officers in one district (London) performed 1,876 inspections and impounded 143 commercial vehicles. The vehicles impounded by these three officers accounted for 59% of the 243 vehicles impounded across the entire province.

In contrast, officers in the entire Northern region who performed over 12,000 inspections in 2018, impounded just one vehicle. Management in the Northern region explained that though many additional vehicles met impoundment criteria, they often only place those vehicles out-of-service due to a lack of impound facilities at inspection stations and not having enough enforcement officers staff to carry out impoundments. We also noted that only 16 of 32 fixed roadside inspection stations had the facilities required to impound a vehicle.

The performance of roadside inspections is largely at the discretion of each individual enforcement officer who conducts them. Although enforcement officers are to conduct inspections in accordance with North American Commercial Vehicle Safety Alliance (CVSA) standards (described in **Section 2.5.1**), enforcement officers do not complete a checklist during an inspection that indicates they examined all of the required vehicle and driver components. In addition, which

**Figure 16: Percentage of Inspections Resulting in a Violation and Charge by District, 2018**

Source of data: Ministry of Transportation



\* Ministry enforcement officers working the 407 Express Toll Route district have the additional responsibility of enforcing 407 ETR toll/transponder regulations, which leads to higher violations and charges being issued. Toll and transponder charges are not safety-related violations and have no impact on a carrier's safety rating. 32% of 407 ETR violations reported are for not having a transponder, and the Ministry estimates approximately 51% of 407 ETR charges are transponder related.

vehicles are inspected, the level of inspection and enforcement action taken is up to the judgment of each enforcement officer.

For greater consistency in roadside inspections, the Ministry developed an Informed Judgment Matrix framework in 2015 that provides guidance for when officers should lay charges based on criteria such as the type of violation and history of the carrier and driver. However, the rates at which districts lay charges have become no more consistent since the matrix was developed. For example, in 2014 the difference between the districts with the lowest and highest percentage of inspections with charges laid was 22% (ranging from 14% to 36%). However, by 2018, the difference had actually risen slightly to 23% (ranging from 8% to 31%).

The Ministry has not performed an analysis of why different regions seem to lay fewer charges given similar opportunities and to determine whether corrective action is needed. It also has not

used roadside inspection, carrier and driver data to evaluate whether enforcement officers are following the informed judgment matrix.

## RECOMMENDATION 2

To ensure that roadside inspections are consistent throughout the province, we recommend that the Ministry of Transportation (Ministry):

- develop a checklist for all key steps to be undertaken during each inspection and require enforcement officers to complete it;
- evaluate why enforcement action differs among districts and take corrective action where such differences are not reasonable; and
- analyze whether enforcement officers are laying charges, placing vehicles out-of-service and impounding vehicles in accordance with the Ministry's informed judgment matrix guidelines.

## MINISTRY RESPONSE

The Ministry agrees with this recommendation. We recognize the importance of a uniform, province-wide program delivery.

The Ministry will evaluate variation in enforcement actions among districts and will take corrective action where that variation is not driven by reasonable geographical factors.

Through the enforcement program review, a variety of tools, including checklists and the informed judgment matrix, will be assessed against officer efficiency, outcome consistency and value in producing improved safety outcomes. Once analyzed, the Ministry will act on the findings of the review and implement changes that maximize program delivery and safety results.

### 4.1.3 Majority of Carriers Have Not Had a Vehicle Inspected in Past Two Years, Including Those with Poor Collision History

Our audit found that the Ministry has not inspected any of the commercial vehicles of more than 56% of Ontario's 60,000 carriers in the last two years (as described in **Section 2.5.2**, violations found during an inspection affect a carrier's safety rating for a period of two years). This included many carriers at the highest risk of future collision.

We analyzed the 870 carriers in the Ministry's database with the highest collision violation rates from May 2017 to May 2019 and found that nearly 20% had not had any of their commercial vehicles inspected in the previous two years.

While it is expected that many small carriers, such as those that are owner-operators with only one truck, would often go long periods of time without being stopped for inspection, we also found that none of the commercial vehicles of many large carriers had been inspected in the last two years. Among the top 25% largest carriers (based on kilometres travelled), 22% (over 3,200) had not had a vehicle inspected in the prior two years.

This includes one US-based carrier that reported over three million kilometres travelled per year and 84 trucks operating in Ontario. It also includes another carrier, an Ontario government ministry, that reported over 3.4 million kilometres travelled per year and 131 commercial vehicles. This carrier was also involved in 40 collisions during the same two-year period.

### 4.1.4 Majority of Roadside Inspections Random and Proportion of Truck Traffic Stopped Decreasing

Our audit found that in the five years from 2014 to 2018 the proportion of truck traffic that was subject to a roadside inspection decreased by 25% from 20 of every 10,000 trucks to 15 of every 10,000 trucks. Truck traffic is daily truck volumes on Ontario roads, including trucks not registered in Ontario. Given the small proportion of traffic the Ministry is able to inspect at roadside, it is important that roadside inspections focus on the riskiest vehicles and carriers. However, we found that, despite new technology to assess risk (discussed in the section that follows), the vast majority of vehicles inspected at roadside are still selected at random at one of the Ministry's 32 fixed inspection stations on Ontario's highways.

Inspection stations signal to trucks to enter the station for possible inspection by turning on signal lights along the highway that indicate the station is open. At many stations, truck traffic is so heavy that the queue of trucks is full in minutes and the lights must be turned off, allowing for only a small sample of the truck traffic passing by to be inspected. Therefore, the trucks that enter the queue do so at random rather than based on the risk posed by a specific carrier because of past collisions or convictions.

When trucks are in the inspection station queue, enforcement officers use their judgment to select which trucks from the queue to inspect and which to allow to pass through. Based on our discussion

with enforcement officers, the factors each officer considers varies. Common considerations included:

- vehicle weight (if the station is equipped with a scale);
- visual condition of the vehicle; and
- inspection history or safety rating pulled from the Commercial Vehicle Operator Registration system.

#### 4.1.5 New Technology Introduced Risk-Based Inspections but Remains Voluntary for Carriers

In 2018, the Ministry implemented two major technology systems—Drivewyze and Pre-screening—to enable officers working at inspection stations to concentrate on high-risk carriers, trucks and drivers.

Drivewyze is a voluntary GPS-based application that transmits information about a carrier ahead of entering the inspection station. The Drivewyze system determines whether a vehicle is eligible to bypass the inspection station using risk-based rules designed by the Ministry. For example, if the truck has had a recent clear inspection, it might be eligible to bypass the station. The Ministry completed testing and implementation of Drivewyze at all inspection stations at the end of 2018, and officially announced the program's availability in January of 2019. The supplier has provided the Drivewyze system at no cost to the Ministry. Instead, it charges participating carriers a monthly fee. We noted that Alberta implemented Drivewyze in 2017, while British Columbia introduced a similar system in 2009. At the time of our audit, according to Drivewyze's website, 44 US states were using Drivewyze.

Because Drivewyze is voluntary, only 71 carriers as of September 2019, representing 1,600 trucks actively operating in Ontario, had enrolled. The Ministry had not set targets for enrollment and had not evaluated the possibility of making Drivewyze mandatory, but did indicate the program would be evaluated at a time that had yet to be determined.

In 2018, the Ministry also selected four inspection stations based on traffic volume to pilot pre-screening technology. The technology began being used at three of the four stations between January and March 2019, and the fourth station was expected to be using the technology by January 2020. The technology is activated once a truck pulls into the inspection station and automatically examines safety elements such as tires, brakes and weight. For example, the technology uses thermal imaging to scan the vehicle for hot spots associated with unsafe and defective equipment such as inoperative brakes, failed bearings and under-inflated or damaged tires. The technology also scans the licence plate of the vehicle and retrieves safety record information, such as previous inspections, from the CVOR system.

The capital cost of the pre-screening technology for the four stations was \$3.7 million. The Ministry indicated a formal plan to evaluate the pilot and consideration of any expansion will be developed in 2020.

### RECOMMENDATION 3

To maximize the effectiveness of its inspection resources and move toward risk-based inspections, we recommend the Ministry of Transportation:

- perform a cost-benefit analysis on making the Drivewyze program mandatory for all carriers; and
- evaluate the results of inspections at the four stations piloting pre-screening technology after one year, and compare results to other stations.

### MINISTRY RESPONSE

The Ministry agrees with this recommendation. The Ministry is currently monitoring the effectiveness of technology.

The Ministry recognizes the potential road safety benefit of increased enrolment of Drivewyze and has been actively communicating the

potential benefits to industry while the impact the technology has on resource effectiveness and safety is monitored. Analysis of how this program builds on the risk-based approach in targeting high-risk carriers in our compliance activities remains part of our ongoing assessment of the newly implemented technology. As part of this assessment, the Ministry will perform a cost-benefit analysis of making Drive-wyze mandatory for all carriers.

With the implementation of the safety pre-screening technologies at the last pilot location planned for early 2020, the Ministry is committed to undertaking an assessment of the results of the pilot locations to measure the effectiveness of the technology to ensure it provides good value for the financial investment prior to consideration of expanding the use of the technology to additional locations.

#### 4.1.6 Carriers are Subject to Few Inspections While Operating on Municipal Roads

Our audit found that while most commercial vehicle collisions occur on municipal roads, the vast majority of roadside inspections are conducted on provincial highways. In addition, we found that the Ministry does not regularly co-ordinate or have a strategy with police services to inspect commercial vehicles that operate on high-traffic municipal and urban roads.

As discussed in **Section 4.1.3**, the chance of being inspected at roadside by the Ministry is small. Given this fact, it is important to ensure that the inspection system does not inadvertently provide opportunities for carriers or drivers to bypass inspections altogether.

Though the Ministry collects data on commercial vehicle traffic on provincial highways, it has limited data on commercial vehicles operating on municipal (including urban) roads. Using collision data as a proxy for traffic, we found that from 2014 to 2018 approximately 68% of collisions

involving trucks belonging to Ontario registered carriers occurred on municipal roads, including 69% of collisions resulting in injury or fatality. This indicates municipal roads see a significant amount of commercial vehicle traffic. However, over 90% of roadside inspections are conducted by Ministry enforcement officers, usually at truck inspection stations on provincial highways. This indicates that “local haulers” who operate primarily on municipal and urban roads are unlikely to be subject to roadside inspection, and drivers and carriers could purposely avoid roadside inspection by operating on municipal roads.

The Ministry’s enforcement officers and the Ontario Provincial Police conduct their roadside inspections primarily on provincial highways. The small portion of roadside inspections on municipal roads are primarily conducted by the various municipal police services with North American Commercial Vehicle Safety Alliance (CVSA)-trained officers. We found the number of CVSA-trained officers and roadside inspections conducted by each police service varied significantly. For instance, five CVSA officers with Halton Regional Police conducted over 1,400 roadside inspections in 2018, and seven officers with Waterloo Regional Police conducted 283 inspections. In contrast, Hamilton and Windsor police services have no CVSA-trained officers to conduct roadside inspections. This is despite significant truck traffic in those regions due to their proximity to the border and major routes flowing in and out of the Greater Toronto and Hamilton Area.

#### RECOMMENDATION 4

To increase the effectiveness of roadside inspections in preventing collisions and improving commercial vehicle safety, we recommend that the Ministry of Transportation:

- analyze carriers that avoid roadside inspection, whether purposely or inadvertently, and develop a strategy for targeting these carriers for inspection; and

- work with police services to develop a co-ordinated area patrol strategy that covers municipal and urban roads with high commercial vehicle traffic.

## MINISTRY RESPONSE

The Ministry agrees with this recommendation and supports a multi-pronged approach to addressing safety risks presented by carriers, including roadside inspections. The Ministry is continuously looking to modernize and improve public safety.

The Ministry will undertake a review of high-risk municipal locations to assess the best approach to improve safety outcomes and will work with the local police services to examine the need for added Ministry supports. In addition, the Ministry's review of the Commercial Vehicle Operator Registration program's effectiveness will assess the risks of carriers exposed to infrequent inspections and act on opportunities to support Ontario's trucking industry through risk-focused enforcement initiatives, including inspections.

### 4.1.7 Almost One-Quarter of Bus Terminals Overdue for Inspections Because of Backlog

At the time of our audit, 394 (21%) of 1,863 bus terminals in the province were overdue for an inspection by the Ministry. On average, these terminals were 86 days overdue, with some terminals being over one year overdue, including two bus operators that had never been inspected. We also noted that 30 of these overdue bus operators had been in at-fault collisions in the last five years.

The Ministry primarily inspects buses during bus terminal inspections. The Ministry uses its Bus Information Tracking System, implemented in 2002, to automatically track buses registered in the province as well as bus terminals. Bus terminals are to be inspected at least once per year. These inspections include selecting a sample of buses from

each terminal to be inspected based on their prior inspection history.

The Ministry explained that the backlog of inspections was due to a large increase in the number of terminals and buses being tracked after the Ministry updated the bus tracking system in 2018. The update resulted in the addition of over 14,000 buses and hundreds of bus terminals.

We also found that the inspection backlog was longer than Ministry backlog reports indicated because in some cases Ministry employees were manually changing inspection due dates in the tracking system. According to the Ministry's bus tracking system manual, due dates are only to be changed if the due date does not match the seasonal operating schedule of a particular bus operator; for example, school boards, which do not typically operate in the summer months. However, since the system update in 2018, we found that 55 terminal inspections had been changed without proper justification, including 41 inspections where the date was changed after the inspection was already overdue.

## RECOMMENDATION 5

To reduce the risk to road safety posed by the backlog in Ministry of Transportation (Ministry) bus terminal inspections, and to ensure buses and bus terminals are inspected at least annually as required, we recommend that the Ministry:

- prioritize high-risk bus operators when clearing the inspection backlog, such as those with a history of collisions and those that have never been inspected;
- implement controls to prevent the alteration of bus inspection terminal due dates; and
- ensure employees only change bus terminal inspection due dates for legitimate reasons.

## MINISTRY RESPONSE

The Ministry agrees with this recommendation. The Ministry is taking action to address

the identified backlog and is making progress toward reducing it.

The Ministry continues to address the bus inspection backlog by actively targeting those most overdue and will review the current system to ensure inspections at higher risk bus companies take priority. The Ministry will also develop and monitor enhanced controls over the inspection due dates to ensure changes are only made to appropriately align inspections to match seasonal operation schedules of bus operators.

## 4.2 Carrier Oversight and Monitoring

### 4.2.1 Ministry Does Not Assess the Reasonableness of Carrier-Reported Kilometres Travelled That Are Used to Calculate Safety Ratings

The Ministry's carrier oversight activities, including when it undertakes specific interventions, are based on a carrier's safety rating (described in **Section 2.5.2**). The safety rating depends on carriers reporting accurate kilometres travelled. However, we found that the Ministry does not have a process in place to ensure kilometres reported by carriers are reasonable. As a result, the accuracy of carrier safety ratings are subject to error. It also creates the opportunity for carriers to over report kilometres travelled to avoid reaching violation thresholds that would trigger Ministry enforcement action, such as a facility audit of the carrier's premises, or sanctions.

The Ministry advised us that a carrier reporting annual travel in excess of 250,000 kilometres per vehicle in its fleet was likely to be unreasonable. We examined a sample of 30 carriers that reported more than 250,000 kilometres per vehicle and shared our results with Ministry staff who confirmed that 70% had reported unreasonably high kilometres.

We found 767 instances of carriers reporting annual travel in excess of 250,000 kilometres per vehicle from 2014 to 2018. In addition, a 2013

report to the Ministry by an external consultant identified over 380 carriers that appeared to have reported kilometres per truck that were in excess of what was possible.

The 2013 consultant's report made recommendations to the Ministry to validate kilometres travelled. However, we found that the Ministry could not demonstrate that it had taken specific action to address these recommendations.

In addition, we noted that the Ministry could work with Service Ontario to verify and record information from annual inspection certificates when carriers renew commercial vehicle licence plates. Inspection certificates include odometer readings that are recorded by the mechanic who performed the inspection.

### 4.2.2 More than Half of Carrier Violation Rates Could Be Inaccurate

Based on the design of the Ministry's formula for calculating carrier safety ratings, we found that there is a risk that more than half of carrier violation rates could be inaccurate.

The Ministry's formula for calculating carrier violation rates uses Commercial Vehicle Operator Registration (CVOR) data on collisions, convictions and the results of roadside inspections. Out-of-service violations and vehicle defects discovered during roadside inspection account for 20% of the carrier's overall violation rate. However, we found that rather than omitting carrier inspection results from the calculation when there have been no inspections, the Ministry's formula assigns the carrier a perfect score for results from roadside inspections.

As noted in **Section 4.1.3**, 56% of carriers have not had any of their vehicles inspected at roadside in the last two years. Therefore, there is a risk that the violation rates of these carriers are understated. We recalculated violation rates at the time of our audit for all carriers that had not received an inspection in the previous two years and adjusted the calculation to exclude the inspection component. We found that by doing so:

- 94 carriers moved into a range that would trigger a warning letter;
- 38 carriers would trigger a facility audit;
- 10 carriers would move to a conditional safety rating;
- four carriers would trigger an interview; and
- three carriers would potentially trigger a sanction, such as suspension or cancellation of their CVOR.

Carrier violation rates are re-calculated daily over a rolling two-year period. The above examples only represent safety rating changes that would have occurred on the date we performed our analysis. Thus, over a two-year period, the safety ratings of many more carriers would likely be affected if they were recalculated by excluding perfect inspection scores where no inspection had been conducted.

## RECOMMENDATION 6

To improve the accuracy of carrier violation rates and the effectiveness of Ministry of Transportation (Ministry) enforcement efforts, we recommend that the Ministry:

- implement controls that identify potentially unreasonable kilometres travelled for follow up;
- explore options to validate carrier-reported kilometres in cases where kilometres travelled do not appear reasonable; and
- review and revise how it calculates carrier violation rates when a carrier has not been subject to a roadside inspection.

## MINISTRY RESPONSE

The Ministry agrees with this recommendation and is committed to examining opportunities to enhance data and safety rating accuracy.

The Ministry has initiated steps to make improvements including an assessment of the effectiveness of the Commercial Vehicle Operator Registration program by reviewing data inputs, such as kilometric travel and safety risks to consider program updates that

will drive efficient and effective compliance efforts. The Ministry will develop controls that identify unreasonable kilometres travelled for follow-up, and explore options to validate kilometres travelled.

The Ministry will review how it calculates carrier violation rates where a carrier has not been subject to roadside inspection, and revise the calculation based on this review.

### 4.2.3 Ministry Policy Significantly Shortens Time that Convictions Affect Carrier Safety Records

Convictions are intended to remain on a carrier's safety record for a period of two years. However, the Ministry uses the date the offence occurred as the starting point for the two-year period instead of the conviction date, thus making the actual monitoring period shorter than intended, and in many cases, of almost no value.

Our analysis of 2017 and 2018 convictions found that on average, convictions remained on a carrier's record for 20 months, meaning delays in obtaining convictions and adding them to the carrier's safety rating reduced the time carriers were affected by those convictions by four months. In addition, over 4,500 convictions over this two-year period, or 7%, took more than a year to add to the carrier's safety record. We also found that more serious offences took longer to obtain convictions, and consequently affected carrier safety ratings for a shorter period of time than less serious convictions. Offences accompanied by five violation points (the most serious) against the carrier's safety rating took almost one-and-a-half months longer than those accompanied by zero violation points.

In addition to the time it takes to obtain a conviction in court, the Ministry is slow to add many offences to a carrier's record after a conviction is obtained. Though the Ministry informed us that new convictions are added overnight or the next day to the carrier's record, we found that on average it actually took 12 days. In 375 cases in 2017

and 2018, the Ministry took over a year to add the conviction to the carrier's safety record, including 30 cases where it took over two years. Many of these convictions were for serious offences including operating without insurance, unsafe driving and driving with an improper class of driver's licence.

By measuring the time from the offence date but adding the event to the carrier's record after the conviction date, the Ministry may be providing incentive for carriers to fight and delay convictions. We analyzed carriers with more than 10 convictions for five points (the most serious) against their carrier safety rating in 2018 and found a wide range of average times between offence date and conviction date. Carriers can therefore receive a significant advantage by delaying convictions. For example, in 2018 Carrier A was convicted of 22 offences carrying the maximum violation points, including operating an unsafe vehicle and providing false information on daily logs. However, because on average it took over 18 months for this carrier to be convicted of these offences, the convictions affected its safety rating for less than six months. In contrast, Carrier B was convicted for similarly serious offences in less than two months on average, and the convictions affected its safety rating for over 22 months.

If an offence takes longer than two years to result in a conviction and be added to the carrier's safety record, it will not count against a carrier's violation rate at all. From 2017 to 2018, over 425 convictions took longer than two years and were not included as violations against the carrier's safety rating. For example, in 2017 and 2018, one carrier had seven charges that took longer than two years to result in a conviction; all related to separate instances of falsifying driver logs, and driving more than the allowable hours in a day (14 hours in Ontario).

The Ministry informed us that the CVOR system automatically flags some convictions added over two years from the offence date for review by an analyst if it is determined they could have had a significant impact on the carrier's violation rate. However, we noted these convictions do not formally count against the carrier's violation rate.

## RECOMMENDATION 7

So that convictions are fully reflected in carrier safety records, we recommend that the Ministry of Transportation:

- include convictions in the calculation of carrier safety records from the date of conviction rather than the date of the offence; and
- evaluate why some convictions are significantly delayed in being added to the Commercial Vehicle Operator Registration and take action to correct the delays.

## MINISTRY RESPONSE

The Ministry agrees with this recommendation. As part of modernization, the Ministry will review ways to address risks associated with convictions as part of our multi-year Commercial Vehicle Operator Registration (CVOR) review.

The Ministry's treatment of convictions is aligned with the National Safety Code Standards, a set of nationally agreed-upon standards covering a number of vehicle- and driver-related areas. Ontario will continue to raise the concern with data entry delays with its national safety partners to see if there is a willingness to review the National Safety Code Standard, including reflecting events in the CVOR rating for a full 24 months.

The Ministry will evaluate why in some cases there is a delay in convictions being added to the CVOR system, and take corrective action to address these delays.

## 4.3 Carrier Enforcement

### 4.3.1 Ministry Conducting Fewer High-Risk Facility Audits Due to Limited Resources

Our audit found that the number of enforcement officers who are trained for and spend the majority of their time conducting facility audits decreased from 30 in 2014 to 24 by the end of 2018, a reduction of 20%. This is consistent with the drop in the

**Figure 17: Facility Audits and Staffing, 2014–2018**

Source of data: Ministry of Transportation

	2014	2015	2016	2017	2018	% Change 2014–2018
Facility auditors	30	29	29	26	24	(20)
Facility audits	649	597	391	387	476	(27)
Voluntary audits	44	54	35	53	95	116
<b>Proportion voluntary (%)</b>	<b>7</b>	<b>9</b>	<b>9</b>	<b>14</b>	<b>20</b>	<b>196</b>

total number of enforcement officers discussed in **Section 4.1.1** due to the Ministry being unable to fill vacancies. It also coincides with a reduction in facility audits of 27% as shown in **Figure 17**. The Ministry expects to perform a minimum of 600 facility audits per year—both voluntary and non-voluntary—but has not reached this mark since 2014. The Ministry informed us that the drop in the number of facility auditors also has contributed significantly to facility audit wait times and an overall backlog.

Over the same five-year period, the number of these audits that are voluntary and conducted at the request of a carrier that wishes to improve its safety rating increased by 116%. In 2018, voluntary audits represented 20% of all audits that enforcement officers performed, compared with 7% in 2014.

We found that between 2014 and 2018, 92% of carriers that had a voluntary audit had been audited previously, and the pass rate for voluntary audits was 82%, compared with 50% for non-voluntary audits. Enforcement staff we spoke to at district offices agreed that audit resources were increasingly being over-directed toward voluntary audits.

As of April 2019, the Ministry had a backlog of 142 audits in its system, including voluntary audits requested by carriers, 87 of which were triggered by a carrier exceeding 50% of the violation rate for its carrier safety rating. The Ministry has set a target for completing facility audits within 60 days of being assigned, but at the time of our audit the average wait time for facility audits exceeded 150 days, including one audit where the wait time was over 400 days.

## RECOMMENDATION 8

To improve the effectiveness of its carrier oversight, and the accuracy and completeness of carrier safety ratings, we recommend that the Ministry of Transportation:

- evaluate why wait-time targets for the completion of facility audits are not being met and take corrective action;
- assess whether it has a sufficient number of enforcement officers who perform facility audits to meet its wait-time targets and take corrective action if it determines that it does not; and
- focus and prioritize the use of its resources on completing facility audits of the carriers that pose the greatest risk to road safety in Ontario.

## MINISTRY RESPONSE

The Ministry agrees with the recommendation.

The Ministry is undertaking a multi-year review of facility audit volumes to better quantify anticipated audits required annually. In addition, the distribution of resources and required staffing levels against program demands and targets, such as inspection and facility audit, will be considered as part of the Ministry's Commercial Vehicle Enforcement Program review.

To address the noted 161% increase in voluntary audits, and focus the Ministry's resources on carriers that pose the greatest risk to road safety, the Ministry has implemented a one-year

pilot to reduce the number of low-risk, voluntary audits and address them through alternative approaches.

### 4.3.2 Failed Facility Audits Do Not Always Lead to Consequences for Carrier to Encourage Improved Road Safety

We found that failed facility audits often lacked consequences for carriers, such as charges being laid, or follow-up by the Ministry to ensure improvements were made. The Ministry also does not have a process to demonstrate that facility audits are performed consistently, including decisions to lay charges against carriers when safety violations are found.

A carrier needs to achieve an overall score of 55% on its facility audit to pass, despite the fact that most facility audits are conducted in response to a carrier having a poor safety rating. The Ministry could not demonstrate its justification for setting 55% as the passing score. We noted British Columbia requires a score of 70% to pass an audit and Manitoba requires 85%. In addition, the Ministry does not have a policy of following up with carriers in regard to violations and issues discovered during a facility audit. Because a failed audit does not count against the carrier's violation rate, carriers can potentially continue to operate indefinitely without consequence, especially if the enforcement officer conducting the audit does not lay charges.

The Ministry's draft truck safety oversight study found that similar to roadside inspections of commercial vehicles, facility audits, specifically failed facility audits, were significantly more effective at preventing future collisions when they were accompanied by charges. However, our analysis found that 37% of non-voluntary failed audits between 2014 and 2018 did not result in charges against the carrier, despite the fact that many violations, and therefore opportunities to charge, must be present in order for a carrier to fail. For example:

- In one failed audit in 2015 with an overall score of 8%, the carrier could provide no maintenance records for the previous two years, did not monitor driver qualifications, and had no systems in place to document and perform driver safety training, collision reporting, or preventative maintenance. The officer conducting the audit laid no charges.

As noted in **Section 4.1.2**, the Ministry developed an Informed Judgment Matrix framework in 2015 that provides guidance for when enforcement officers should lay charges, including in the case of facility audits. Nevertheless, we noted significant variances between districts subsequent to the framework's implementation. For instance, in 2018 one district laid charges in 83% of failed audits, while another laid charges in just 29%.

We were also informed that where reviews of facility audits are performed by supervisory staff, they are informal, and the Ministry confirmed it has no quality assurance process that ensures audits are conducted consistently and that appropriate charges are laid.

## RECOMMENDATION 9

To improve the effectiveness of facility audits in improving carrier safety, we recommend that the Ministry of Transportation (Ministry):

- evaluate and establish a score that carriers must pass during a facility audit that supports improving commercial vehicle safety;
- evaluate why differences exist between districts in charges laid during facility audits and take corrective action where such differences are not reasonable; and
- assess whether enforcement officers are laying charges during facility audits in accordance with the Ministry's Informed Judgment Matrix guidelines and take corrective action where they are not.

## MINISTRY RESPONSE

The Ministry agrees with this recommendation and strives to ensure all compliance activities, including facility audits, include appropriate consequences.

The Commercial Vehicle Operator Registration effectiveness review will consider necessary updates and enhancements to the program, including analysis of the current facility audit pass score.

The Ministry's Enforcement Program review will examine strategies to improve province-wide consistency in compliance and enforcement delivery, including within our facility audits. The review will also assess the current tools, such as the Informed Judgment Matrix, for applicability with the audit program while exploring additional methods of corrective action for achieving consistent audit results focused on driving carrier behaviour changes to achieve compliance and promote greater safety outcomes.

### 4.3.3 Despite High Risk of Collisions, Ministry Does Not Sanction Municipalities

A carrier's collision violation rate measures collisions where the driver or a vehicle defect was listed at-fault in the collision. We found that, on average, the collision violation rate at the time of our audit for the 50 largest Ontario municipalities that operate commercial vehicles was almost 250% higher than the average rate for all carriers travelling a similar amount of kilometres. As well, of the 50 municipalities we reviewed, 28% had exceeded 100% of their collision points threshold at the time of our audit. Though the Ministry issues warning letters, carries out facility audits and conducts interviews in response to high violation rates, we found that the Ministry does not impose sanctions on municipalities—such as suspending or cancelling the registration of municipalities, regardless of how poor their safety record is.

Of the 50 municipalities we reviewed, 18% had not had a vehicle inspected at roadside in the previous two years. Municipalities tend to operate primarily on municipal roads and within urban centres, not provincial highways where the vast majority of roadside inspections are undertaken.

Regardless of their violation rates, the Ministry informed us that it does not suspend or cancel the registration of municipalities because of the essential nature of the services they provide to their local communities. Municipalities, therefore, can operate under poor safety ratings with few consequences and have little incentive to improve.

## RECOMMENDATION 10

So that municipalities are held to the same standards as other carriers, and have incentive to improve poor safety performance, we recommend that the Ministry of Transportation:

- study the causes for the increased collision risk associated with municipalities; and
- develop alternative options that encourage safety improvement where sanctions, such as cancellation and suspension of municipal carrier registration certificates, is not feasible.

## MINISTRY RESPONSE

The Ministry agrees with this recommendation and has incorporated municipal collisions analysis in our Commercial Vehicle Operator Registration effectiveness review.

The Ministry will take action to develop alternative options to encourage safety improvements for municipalities where current available sanctions are warranted but not feasible due to the essential nature of the services municipalities provide to local populations.

## 4.4 Driver Licensing and Training

### 4.4.1 Ministry Does Not Monitor if Mandatory Entry-Level Training for Drivers is Delivered Consistently

Mandatory Entry-Level Training (MELT) is delivered by two different types of organizations: private career colleges and the Driver Certification Program (discussed in **Section 2.6.2**). We noted that the two are subject to different delivery and oversight standards (see **Figure 18**). This could affect the consistency and effectiveness of MELT in preparing new commercial drivers to operate vehicles safely on Ontario roads. As of July 1, 2017, all drivers applying for a Class A licence must complete MELT before they can take their road test.

Although the Ministry of Transportation developed the MELT program and standard, including a curriculum framework, course structure, course hours and facility requirements, the majority of students complete MELT at private

career colleges, which are regulated by the Ministry of Colleges and Universities. We found that the Ministry of Transportation did not have a memorandum of understanding with the Ministry of Colleges and Universities to deliver MELT or to share information on the program. As a result, the Ministry of Transportation knew little about how MELT was being delivered at career colleges.

Near the end of our audit, the Ministry informed us that in September 2019 it began to evaluate the effectiveness of MELT. The evaluation was still in progress at the end of our fieldwork, and a final conclusion had yet to be reached.

#### Ministry Has No Standards for Teaching Qualifications or for Granting Students Advanced Standing

We also found that neither the Ministry of Colleges and Universities nor the Ministry of Transportation has a certification program for MELT instructors,

**Figure 18: Policy Comparison between Organizations that Deliver Mandatory Entry-Level Training**

Source of data: Ministry of Transportation

Mandatory Entry-Level Training (MELT) Policy Area	Ministry of Colleges and Universities Requirement for Private Career Colleges*	Ministry of Transportation (Ministry) Requirements for Organizations Licensed under the Driver Certification Program (Certification Program)
Responsibility for oversight and monitoring	Ministry of Colleges and Universities	Ministry of Transportation
Program and curriculum approval	Career colleges must engage an adult education specialist and a subject matter expert to review its MELT curriculum for compliance with Ministry of Transportation standards.	Organizations submit their training and testing curriculum directly to the Ministry for approval.
Inspection/audit policy	Career colleges are typically inspected once every two to three years based on risk by Ministry of Colleges and Universities staff.	Certification Program organizations are audited by external auditors every one to three years, depending on the results of the previous audit.
Instructor training or certification required	No	No
Students can be given advanced standing in the program	Yes	No
Knowledge and road tests	Students complete testing at DriveTest centres after completing MELT.	Students can complete testing at the Certification Program organization after completing MELT (see <b>Section 4.6.1</b> )

\* Based on policies and descriptions provided by the Ministry of Colleges and Universities.

nor do they require any formal education or training in teaching. Multiple stakeholders we spoke to expressed their concern that the quality of MELT was not consistent, due in part to a lack of required training or certification for instructors.

We also noted that while private career colleges can grant students advanced standing, Driver Certification Program organizations cannot. Advanced standing allows students with previous recognized training or acquired skills to skip some of the 103.5 hours required in MELT. Some stakeholders we spoke with expressed concern that advanced standing might be granted too easily at some schools. Without a well-defined policy from the Ministry of Transportation on how to evaluate prior experience and how much advanced standing should be granted, there is a risk that career colleges will grant advanced standing in order to attract students who want the quickest path to their Class A licence.

### RECOMMENDATION 11

To improve the consistency with which Mandatory Entry-Level Training (MELT) is delivered across the province, we recommend that the Ministry of Transportation work with the Ministry of Colleges and Universities to:

- review and standardize curriculum approval and audit policies for organizations delivering MELT;
- develop an instructor certification process for all instructors delivering commercial vehicle training;
- evaluate whether offering advanced standing at private career colleges and not at organizations operating under the Driver Certification Program is fair and justified; and
- periodically review the effectiveness of MELT in improving the safety of drivers who complete it.

### MINISTRY RESPONSE

The Ministry agrees with this recommendation. The Ministry is continuously looking to modernize and improve public safety.

The Ministry, in partnership with the Ministry of Colleges and Universities, will undertake a review of the curriculum approval process and audit policies for those organizations delivering Entry-Level Training for commercial Class A truck drivers. Based on this review, steps to standardize curriculum approval and audit policies will be determined.

The Ministry has initiated a review of Entry-Level Training for Commercial Class A truck drivers, including exploring options relating to the introduction of instructor certification requirements and the elimination of advanced standing altogether to ensure that applicants for a Class A licence are properly trained before they are tested and licensed. The Ministry will periodically review the effectiveness of MELT in improving driver safety.

#### 4.4.2 MELT Not Extended to Other Commercial Class Licences that Pose Significant Safety Risks

Although the introduction of Mandatory Entry-Level Training (MELT) is a step toward ensuring professional drivers in Ontario are trained for the vehicles they operate, MELT only applies to obtaining a Class A licence. Some of the industry stakeholders we spoke to believe MELT should be extended to all commercial class licences, some of which pose a comparable safety risk as the tractor-trailers typically operated under a Class A licence.

**Figure 10** summarizes the different types of commercial vehicle licences and illustrates the types of vehicles that the licence holder can operate. Class D licence holders are able to operate vehicles greater than 11,000 kg, meaning they can drive vehicles that are as heavy as some tractor-trailers. The only restriction on a Class D licence, other

**Figure 19: Truck Driver-At-Fault Collision Statistics per 10,000 Registered Vehicles for Tractor-Trailers and All Other Trucks,<sup>1</sup> 2017<sup>2</sup>**

Source of data: Ministry of Transportation

	Licence Class Generally Required	Per 10,000 Registered Vehicles		
		Fatalities	Injuries	Collisions
Tractor-trailer	A	2.4	50.0	213.0
Other commercial trucks	D or G	0.9	87.2	393.4

1. Other commercial trucks include tow trucks, open trucks, closed trucks, tank trucks, car-carriers and dump trucks.

2. 2017 data is preliminary.

than the “Z” endorsement required for all licence classes for vehicles with air brakes (described in **Section 2.6.1**), is that any towed trailer must not exceed 4,600 kg. In the example of a dump truck, which can be operated with a Class D licence, the dump bucket of the truck is not considered a trailer because it is fixed to the truck’s frame.

Because licence restrictions are based on the weight of a vehicle and the load it is towing for trucks, and passenger capacity for buses, it is not always easy to determine what commercial vehicles require what type of licence. However, we can compare tractor-trailers, which in most cases require a Class A licence, and therefore the completion of MELT, to all other types of large trucks (such as dump trucks or trucks where the cargo box is fixed to the frame), which in most cases requires a Class D or G licence. **Figure 19** provides collision statistics for tractor-trailer combinations and all other types of large trucks for 2017.

As the figure shows, though driver at-fault collisions involving tractor-trailers produce more fatalities per registered tractor-trailer, driver at-fault collisions involving other trucks produce more injuries and collisions in general per registered truck. Overall, drivers of large trucks that do not require the completion of MELT appear to pose a significant risk to road users.

## RECOMMENDATION 12

To help improve commercial driver safety on Ontario roads, we recommend that the Ministry of Transportation (Ministry):

- evaluate the benefits of requiring additional classes of new commercial drivers to take Mandatory Entry-Level Training (MELT); and
- extend MELT to the classes of new commercial drivers where the Ministry determines it would be beneficial.

## MINISTRY RESPONSE

The Ministry agrees with this recommendation.

The Ministry has met with a number of stakeholders since the introduction of the current Mandatory Entry-Level Training and will continue to work with them as we analyze data, continue to conduct further research and review policies.

The Ministry is also undertaking a formal evaluation of the currently implemented Entry-Level Training for Class A drivers. The results of this evaluation will provide the Ministry with a greater understanding of the impact of Entry-Level Training on collision involvement for Class A drivers and will be critical in guiding discussions to determine whether the Ministry proceeds with Entry-Level Training for other commercial driver licence classes.

## 4.5 Commercial Driver Testing and Drug and Alcohol Regulations

### 4.5.1 95% of Student Drivers Passed by Carriers Compared with 69% at DriveTest

As described in **Section 2.6.1**, individuals in Ontario can obtain a commercial class driver's licence at DriveTest centres or through organizations that include private carriers under the Driver Certification Program (Certification Program). Drivers who take their road test with carriers can also be trained and employed by the carrier—even those with a poor collision history. We found that carriers had a significantly higher pass rate of 95% compared with just 69% at DriveTest centres. A jurisdictional scan by the Ministry found that British Columbia allows four carriers to test employees for commercial driver's licences and Alberta allows one carrier. No other provinces were found to allow carriers to test their own employees for commercial driver's licences. There were 106 carriers registered to test employees for commercial driver licences in Ontario at the time of our audit.

We found several instances of carriers with a poor collision history that were allowed to continue testing drivers under the Certification Program. For example, one municipal transit operator had been involved in enough collisions to exceed 100% of its collision points threshold at the time of our audit. The carrier's drivers had been involved in over 220 collisions between 2014 and the completion of our fieldwork in July 2019, in which their actions or inattentiveness had contributed to the collision; 32 of these collisions resulted in injury. Despite this, the carrier was still testing employees for commercial vehicle licences.

We analyzed all 106 registered carriers approved under the Certification Program at the time of our audit and found that 27, or 25%, ranked among the worst 1% of carriers for at-fault collisions. These 27 carriers performed over 7,800 road tests for commercial vehicle licences between 2014/15 and 2018/19 and failed just 9% of drivers tested.

Multiple stakeholders we spoke to indicated that there is currently a shortage of qualified drivers for carriers to hire. Because carriers are allowed to test their own drivers, there could be incentive to pass drivers who otherwise would have failed in order to get trucks and commercial vehicles on the road.

The Ministry also indicated it is not uncommon for the same instructors who deliver training programs to then administer their students' knowledge and road tests for licensing, posing a potential conflict of interest.

We compared road tests performed by carriers between 2014/15 and 2018/19 under the Certification Program against those performed by DriveTest and found the following:

- Over 22,600 road tests were performed by carriers for commercial vehicle licences under the Certification Program, which represented approximately 17% of all road tests.
- Carriers failed just 11 of almost 1,500 drivers they road tested for Class D licences during the period. **Figure 20** shows commercial road test pass rates by licence class. (See **Figure 10** for what types of commercial vehicles are associated with each class.)
- Carriers passed 97% of drivers they road tested for Class B licences during the period, compared with 73% at DriveTest. This includes a school bus line ranked among the

**Figure 20: Commercial Class Licence Road Tests by Testing Authority, 2014/15–2018/19**

Source of data: Ministry of Transportation

Driver Licence Class	Pass Rates (%)	
	Carriers Driver Certification Program	DriveTest
A	85	64
B	97	73
C	89	78
D	99	77
E	97	66
F	97	73
<b>Total</b>	<b>95</b>	<b>69</b>

worst 1% of carriers for at-fault collisions that road tested 61 drivers with no failures.

We also found that Ontario is the only jurisdiction in Canada that currently allows drivers to obtain a Class A equivalent licence by performing their road test in a vehicle with an automatic transmission and does not restrict those drivers from operating trucks with manual transmissions. The United States and all Canadian provinces except Ontario do not allow drivers who obtain their licence using a vehicle with an automatic transmission to operate a tractor-trailer with a manual transmission. This means that in Ontario, a driver can obtain a Class A licence and operate a manual transmission truck with a gross weight as high as 63,500 kg with as many as 18 gears without any experience driving with a manual transmission. We noted that in 2019 both Alberta and Manitoba changed their Class A licence equivalent to require the use of a manual transmission truck when performing the test.

### RECOMMENDATION 13

So that only drivers who demonstrate the required skills and knowledge to operate commercial vehicles are able to obtain a commercial vehicle driver's licence, we recommend that the Ministry of Transportation:

- analyze the difference in pass rates between the Driver Certification Program and DriveTest to determine whether they are reasonable and identify instances that require follow up or corrective action;
- review whether allowing carriers to administer driver's licence testing through the Driver Certification Program constitutes a conflict of interest; and
- obtain data on drivers testing and driving different transmission types, and study any related safety implications to inform policy decisions on driver licensing.

### MINISTRY RESPONSE

The Ministry agrees with this recommendation.

The Ministry will analyze the pass rates between the Driver Certification Program and DriveTest to determine whether they are reasonable and take corrective action as required. The Ministry will also review whether allowing carriers to administer driver's licence testing through the Driver Certification Program constitutes a conflict of interest.

The Ministry is committed to address the situation of testing in vehicles with different transmission types. The Ministry is exploring these, including placing a restriction to the driver's licence to prohibit the operation of a Class A manual transmission vehicle if the road test was passed in a vehicle with an automatic transmission.

#### 4.5.2 Ontario Truck Drivers Not Subject to Mandatory Drug and Alcohol Testing and Strict Medical Cannabis Regulations

In Ontario, drivers operating a vehicle that requires a commercial licence are prohibited from having any presence of alcohol, marijuana, or any other prohibited drugs in their system. However, there is no requirement in Ontario for commercial vehicle drivers to be subject to mandatory testing either before or during their employment. The Ministry informed us that testing is completed at roadside if police suspect that a driver is impaired. In addition, employers may require preliminary and ongoing testing as a condition of employment, although the Ministry did not know how many carriers had such policies. Our research did not find any Canadian provinces enforcing mandatory testing of commercial vehicle drivers.

In contrast, federal regulations in the United States require mandatory pre-employment drug testing, as well as random drug and alcohol testing for commercial drivers throughout the year by the carriers that employ them, or by a consortium

in the case of owner-drivers. Ontario drivers who operate in the United States are also subject to these regulations and random tests. Multiple stakeholder groups we spoke to were in favour of mandatory pre-employment and randomized drug and alcohol testing for commercial vehicle drivers.

From 2014 to 2018, 244 collisions involving commercial vehicle carriers listed the driver as under the influence of drugs or alcohol, 21% of which resulted in injury or a fatality. From 2014 to 2016 (the most recent year with finalized fatality statistics) 6.8% of collisions involving commercial vehicles where a carrier's driver was under the influence of drugs or alcohol resulted in a death. This made them over twelve times more likely to result in death than the average commercial vehicle collision, which has a 0.57% chance of fatality (described in **Section 2.3.1**).

### 4.5.3 Despite Risks, Commercial Drivers with Prescriptions Allowed to Drive under the Influence of Marijuana

Ontario drivers who hold a prescription for medical marijuana may operate a commercial vehicle with marijuana present in their system as long as they are not legally impaired, unlike those who use it recreationally. We found the distinction between medical and recreational use concerning given that the negative effect on a driver's ability to operate a large commercial vehicle may be similar. The Ministry does not track information on the number of commercial vehicle drivers using medical marijuana.

Some transportation organizations in Canada have come out against the use of medical marijuana for operators of vehicles such as buses, trains and airplanes. For instance, Metrolinx, an agency of the government of Ontario that oversees the operation of intercity bus and train transportation in Greater Toronto and its surrounding areas, has banned all marijuana use, including medical, for its train and bus operators. Transport Canada has also banned all marijuana use, including medical, for flight crews and flight controllers (aviation is a

federally regulated industry). In addition, there is no exception for commercial vehicle drivers using medical marijuana in the United States. Multiple industry stakeholders we spoke to were in favour of adopting similar regulations for Ontario's commercial vehicle drivers.

## RECOMMENDATION 14

To reduce the risk of collisions involving commercial vehicle drivers under the influence of drugs and alcohol, we recommend the Ministry of Transportation:

- study and report on the potential road safety benefits of mandatory pre-employment and random drug and alcohol testing for commercial vehicle drivers;
- where road safety benefits are identified in the study, work with federal and provincial governments to establish pre-employment and random drug and alcohol testing guidelines for commercial vehicle drivers; and
- study the risks to road safety of exempting commercial vehicle drivers with medical prescriptions for marijuana from the same standards applied to recreational users, and develop a strategy to mitigate these risks.

## MINISTRY RESPONSE

The Ministry agrees with the recommendation. The Ministry is always looking for ways to reduce the risk of collisions involving commercial vehicle drivers under the influence of drugs and alcohol.

The Ministry will study potential road safety benefits of mandatory pre-employment and random drug and alcohol testing for commercial vehicle drivers. Where significant benefits are identified, the Ministry will work with provincial and federal partners on the establishment of testing guidelines.

The Ministry will study potential risks to road safety of exempting commercial vehicle drivers with medical prescriptions for marijuana from the same standards applied to recreational

users, and develop a strategy to mitigate these risks. In the meantime, workplace-testing policies can be established by employers in Ontario, but are not mandatory. The Ministry of Labour, Training and Skill Development has established guidance on its website to help workplace parties understand impairment and workplace health and safety obligations under the law.

## 4.6 Motor Vehicle Inspection Stations

### 4.6.1 Commercial Vehicle Licence Plates Renewed Annually by Service Ontario without Proof Vehicle Has Passed an Inspection

As noted in **Section 2.7**, the Ministry licenses qualified MVIS garages that inspect commercial vehicles in order to issue inspection certificates certifying a particular vehicle mechanically safe to operate. MVIS garages order and purchase booklets of paper-based inspection certificates directly from the Ministry. In this regard, the program has remained largely unchanged since its creation in 1974.

We found that the Ministry does not require Service Ontario to ask for proof of a valid annual or semi-annual inspection certificate when renewing commercial vehicle licence plates. Therefore, the Ministry does not know how many commercial vehicles are operating without an up-to-date annual or semi-annual inspection certificate. The only way to catch these vehicles is for police or enforcement officers to review the certificate during a roadside inspection. During roadside inspections in 2017 and 2018—the first full years this information was tracked—officers found almost 7,500 instances where commercial vehicles did not have a valid annual or semi-annual inspection certificate.

Providing proof of an inspection certificate at plate renewal would be an opportunity for the Ministry to collect data on the MVIS garage, mechanic and vehicle that the certificate was issued to.

### Ministry Does Not Track Inspection Certificates to Ensure They Are Used Appropriately by MVIS Garages

The Ministry is unable to track annual and semi-annual inspection certificates because they are a paper-based. With the exception of tracking which blank certificates were purchased by each MVIS garage, the Ministry has no information on the annual inspection of commercial vehicles performed by MVIS garages or the certificates they issued. For example:

- Although the Ministry knows which annual and semi-annual inspection certificate numbers were sold to specific MVIS garages, it does not know if or when these certificates were issued to vehicles, or if the garage that ordered the certificates is the same garage that performed the inspection.
- The Ministry cannot link a particular annual or semi-annual inspection certificate number to the vehicle it was issued to, or the mechanic who performed the inspection. The only way to obtain this information would be to review a paper copy of the inspection certificate at the MVIS garage.

An inspection program with significantly stronger controls and data capture exists in the province's Drive Clean program. **Figure 21** outlines key process and control differences between the MVIS and Drive Clean programs.

Up until April 2019, Drive Clean tested all vehicle emissions. Since April 2019, it no longer tests passenger vehicles but does continue to test heavy-duty diesel commercial vehicles for acceptable emissions levels. The Drive Clean program contracts private facilities, many of which are MVIS garages, to perform emissions inspections. The Ministry of Transportation, the Ministry of the Environment and Service Ontario jointly administer the program.

**Figure 21: Comparison of Drive Clean and Motor Vehicle Inspection Station Processes and Controls**

Source of data: Ministry of Transportation

Process or Control	Drive Clean	Motor Vehicle Inspection Station (MVIS) Garages
Inspection reports/certificates	Completed electronically on the Drive Clean inspection system. All details of inspections are uploaded to a central database immediately after the inspection except for mobile facilities, which have up to three days to upload. Inspection facilities are also required to keep inspection records for two years.	Paper-based. Inspection details can only be accessed by physically reviewing them at the MVIS.
Inventory control	Cancelled/suspended/expired inspection facilities can be locked out of the Drive Clean inspection system, and are then unable to issue inspection reports.	The Ministry of Transportation (Ministry) system will not process orders for inspection certificates made by cancelled/suspended/expired MVISs. However, the MVIS may still hold significant stock of paper inspection certificates.
Data available to the Ministry for analysis	<ul style="list-style-type: none"> <li>• Inspection number</li> <li>• Inspection facility</li> <li>• Inspector name, licence number</li> <li>• Vehicle inspected</li> <li>• Vehicle specifications such as make, model, year, weight and engine size</li> <li>• Date and time of inspection</li> <li>• Odometer reading</li> <li>• Vehicle computer module readings, such as RPM, during inspection</li> <li>• Photos of the vehicle for verification and auditing purposes</li> <li>• Test results (emission readings, pass/fail)</li> </ul>	Inspection certificate numbers that the Ministry sold to each MVIS.
Service Ontario renewal requirements	Service Ontario requires proof of a passed Drive Clean inspection prior to renewing licence plates.	Service Ontario only requires proof of an inspection certificate when there is a change of ownership of the vehicle.
Audits and/or investigations	Inspection facilities can be audited over the phone, in real time through the Drive Clean system, or through a site visit.	MVISs are typically investigated or audited only in response to complaints from the public, and enforcement officers must visit their place of business.

**RECOMMENDATION 15**

To support the licence renewal of only commercial vehicles that have passed an annual or semi-annual inspection and to improve the efficiency and effectiveness of its oversight of Motor Vehicle Inspection Stations (MVIS), we recommend that the Ministry of Transportation:

- work with Service Ontario to include proof of inspection certificates as a requirement

when licence plates are renewed for commercial vehicles; and

- implement electronic inspection certificates to be issued by MVIS garages using a central system, using the Drive Clean program and its controls as an example.

## MINISTRY RESPONSE

The Ministry agrees with this recommendation.

The Ministry is currently reviewing system connectivity between mechanical inspections and vehicle registration (plate) renewal. The Ministry is in discussions with Service Ontario to develop policies linking registration and annual and semi-annual inspection results.

The Ministry is analyzing the introduction of electronic inspection certificates, which would be issued by MVIS stations to a central system administered and managed by a third-party service provider. The Ministry would have full access and ownership of all data, including individual vehicle inspection results, which will be relied on for program monitoring, investigation and enforcement purposes.

### 4.6.2 Ministry Does Not Consistently Identify and Take Action against High-Risk MVIS Garages

Our audit found that the Ministry only conducts investigations at MVIS garages if it receives complaints from the public, or if a problem comes to the attention of the Ministry's enforcement staff. The Ministry also does not have criteria to determine when MVIS garages should be subject to Ministry interventions such as investigations and audits (see **Section 2.7.2**), or be subject to sanctions, including revoking their licence. And the Ministry does not follow up on MVIS garages that have had serious violations to ensure improvements have been made.

When the Ministry does have reason to investigate garages, it often finds serious violations and sometimes fraudulent activity. Examples of investigation findings over the past five years include:

- MVIS issuing inspection certificates for defective vehicles;
- MVIS issuing inspection certificates without inspecting the vehicle;
- inspections performed by unlicensed mechanics; and

- failure to notify the Ministry of lost, stolen or destroyed inspection certificate stock.

In one 2019 case under investigation at the time of our audit, an enforcement officer found an individual, who was not a mechanic or MVIS operator, selling inspection certificates over Facebook for cash.

We found that in most cases, MVIS garages with a significant number of convictions resulting from an audit or investigation continued to be licensed by the Ministry without the Ministry taking steps to follow up and ensure the garage made improvements.

For example, one MVIS had 100 charges and subsequent convictions due to a Ministry investigation that was completed in July 2016, including “obstructing an inspector or refusing to provide information to an inspector.” At the time of our audit, the MVIS was still operating and had not undergone a follow-up visit from the Ministry. The Ministry stated that it had not revisited the MVIS because it had not received another complaint about the station from the public.

The Ministry attempted to revoke only 14 MVIS licences from 2014 to 2018. At the time of our audit, three of the 14 were still licensed after a successful appeal to the Licence Appeal Tribunal (described in **Section 2.7.2**), and two were still licensed while awaiting their appeal hearing, leaving only nine garages successfully revoked by the Ministry.

In our 1997 audit *Commercial Vehicle Safety and Regulations*, we expressed concern about the absence of an inspection process for MVIS garages, and the Ministry committed to developing criteria for choosing high-risk MVIS garages for inspection audits. However, by our 2008 audit the Ministry had made no progress in developing guidelines or a process for identifying high-risk MVIS garages, or for taking any enforcement action against them. During our current audit, we found that the Ministry had still made no progress toward implementing a process to identify high-risk MVIS garages.

We also found that the Ministry was not utilizing roadside inspections to record inspection certificate information or identify high-risk MVIS garages. Part of a standard roadside inspection is checking for a

valid inspection certificate. However, enforcement officers do not record details of the certificate, such as the issuing MVIS garage, signing mechanic, or when the certificate was issued. In addition, the Ministry also has no formal process that allows officers to flag a vehicle with a recently issued inspection certificate that they find to have significant mechanical defects. Such a process could identify and allow for the investigation of MVIS garages that are potentially inspecting commercial vehicles improperly or the fraudulent signing of inspection certificates.

### RECOMMENDATION 16

To help identify and take enforcement action on high-risk Motor Vehicle Inspection Station (MVIS) garages, we recommend that the Ministry of Transportation:

- add inspection certificate information to the data captured during roadside inspections;
- create a process that allows enforcement officers to easily flag concerning inspection certificates for follow up with the MVIS garage; and
- develop a system for assigning risk levels or scores to MVIS garages and use this information to drive investigations and audits.

### MINISTRY RESPONSE

The Ministry agrees with this recommendation and has initiated work on modernizing oversight of the MVIS network to identify and act on high-risk stations.

As part of planned program modernization, the Ministry is analyzing a risk-based monitoring and compliance solution. This information could be used to inform station investigations and audits. Furthermore, program modernization will improve opportunities for collaboration between on-road enforcement officers and the MVIS oversight function, including the opportunity to flag concerning inspection certificates for follow up with the MVIS garage. The Ministry is also analyzing ways to examine whether

the roadside capture of inspection information will add value to the improved oversight of the inspection regime and act if warranted.

### 4.6.3 Many MVIS Garages Ordering Excessive Number of Inspection Certificates without Investigation by the Ministry

Our analysis of orders made by MVIS garages in 2018 revealed that many seem to be ordering far more than they could be issuing based on the number of registered mechanics they have. Excessive ordering creates the risk that garages could be distributing or selling inspection certificates they order but do not need, or are issuing certificates without actually inspecting vehicles.

For instance, 211 garages ordered over 528 certificates per licensed mechanic during 2018, which is 10 times the amount ordered by the average garage. Despite this, Ministry order processors requested only 18 investigations related to excessive certificate ordering in 2018. At the time of our audit, six of the 18 requests were open while 12 had been investigated. Seven of the 12 investigations led to failed site inspections and charges. Three of the 12 investigations led to the officer proposing revoking the garage's licence.

The MVIS inspection certificate ordering system has no automated controls to flag excessive ordering of inspection certificates. It is up to order processors employed at the Ministry to identify what seems like excessive or unusual ordering based on their own judgment and flag such ordering for investigation by an enforcement officer. However, the Ministry informed us that there is no benchmark or guideline to assist order processors in identifying these orders, nor is there any requirement for them to report any anomalies in ordering.

Many of the MVIS garages ordering the highest number of inspection certificates per mechanic have received no investigation at all. For example:

- An MVIS garage with one mechanic ordered 7,300 certificates from 2016 to 2018, or 46 times the average per mechanic across all

MVIS garages. Order processors did not create any requests for investigation into the garage's ordering practices, and the Ministry has not conducted an investigation of the garage.

- An MVIS garage employed only one mechanic and was sent 4,000 inspection certificates in 2018 alone, which is 76 times the average per mechanic. When we asked the Ministry about the orders, it began investigating and found that the station had actually only ordered 2,000 certificates, which is still 38 times the average per mechanic. An error in the Ministry's system caused a duplicate order to be filled at no charge to the MVIS garage. Therefore, the garage and its single mechanic received 4,000 safety certificates, 2,000 of them for free, without the system flagging the transaction or Ministry staff noticing until we brought the case to their attention. The Ministry indicated it was initiating the process to collect payment for the additional 2,000 certificates.

### RECOMMENDATION 17

So that Motor Vehicle Inspection Station (MVIS) garages are not ordering excessive inspection certificate stock that could be sold, distributed, or issued inappropriately, we recommend that the Ministry of Transportation:

- create automated controls in the inspection certificate ordering system that flag excessive ordering based on factors such as registered mechanics and prior order history; and
- create guidelines and train order processors to identify excessive ordering, and follow up when investigation requests are submitted by these processors.

### MINISTRY RESPONSE

The Ministry agrees with this recommendation and has initiated work on modernizing oversight of the MVIS network to identify and act on high-risk stations.

As part of the Ministry's modernization efforts, the Ministry is reviewing its current paper-based stock ordering process to replace it with the issuance of on-demand electronic certificates. These electronic certificates would then be monitored to flag instances of potentially excessive issuance, and to take compliance action against the associated technician and/or station where warranted. The new program will include streamlined processes for removing stations unable to maintain safety and reporting compliance.

### 4.6.4 MVIS Inspectors Lack Standardized Training and Oversight, Leading to Inconsistent Results

Enforcement officers who conduct audits and investigations are known as vehicle inspectors. Though vehicle inspectors must be licensed mechanics, we found that there was no standardized training instructing these officers how to effectively audit or investigate an MVIS garage. Instead, they learn simply by observing more experienced vehicle inspectors performing their duties. Managers we spoke to expressed their concern over the lack of training for vehicle inspectors. They indicated that being licensed mechanics gives inspectors the required automotive knowledge for the job, but when hired they have no experience in investigations, gathering evidence, or laying charges against MVIS garages.

In addition to a lack of standardized training, the Ministry has not updated the MVIS Policy Manual or its MVIS audit reports and checklists since 2009. This is problematic given that changes have occurred since, and the manual refers to information systems no longer used by the Ministry. We reviewed MVIS audit files at all three district offices we visited and found audit requirements were not being met consistently. For example:

- inspectors did not check for all required tools in 47% of the files we tested;

- inspectors did not complete the audit checklist in 53% of files, and 20% of audit files we tested had no checklist at all;
- in 37% of audit files, mechanic trade certificates were not reviewed to ensure mechanics were registered, in good standing and qualified to sign inspection certificates for the types of vehicles being inspected; and
- in two cases, audit files we requested as part of our sample could not be found at all, in paper or digital form.

## RECOMMENDATION 18

So that audits and investigations of Motor Vehicle Inspection Station (MVIS) garages are performed consistently, we recommend that the Ministry of Transportation (Ministry):

- provide vehicle inspectors with standardized training on conducting audits and investigations; and
- update its MVIS policy manual, audit reports and checklists to reflect current practices and Ministry systems.

## MINISTRY RESPONSE

The Ministry agrees with this recommendation.

As part of MVIS modernization, the Ministry will develop standardized training for vehicle inspectors conducting audits and investigations, and update the MVIS policy manual, audit reports and relevant checklists to reflect the most current practices.

## 4.7 Performance Measurement

### Ministry Performance Indicators Insufficient to Effectively Monitor Commercial Vehicle Safety Performance

Our 2008 audit on commercial vehicle safety noted that the Ministry had not developed meaningful performance indicators and targets to assess the effectiveness of its activities in improving commercial vehicle safety. We found that the Ministry

has since developed two performance indicators with associated targets that measure road safety. However, we noted that only one of these indicators is specific to commercial vehicles. The indicators and Ontario's performance over the last five years are presented in **Figure 22**.

The Ministry publicly reports fatalities per 10,000 licensed drivers in the *Ontario Road Safety Annual Report*. This is a standard indicator used across North America as a measure of overall road safety. In 2016 (the most recent year a comparison is possible), Ontario's fatality rate of 0.58 per 10,000 licensed drivers was the second lowest in all of North America, behind only the District of Columbia in the United States.

The only commercial vehicle specific performance indicator currently in place is the indicator on Commercial Vehicle Compliance Rates during RoadCheck, which is not publicly reported. RoadCheck is an annual three-day inspection initiative benchmarking truck safety in Canada, the United States and Mexico. The indicator measures the percentage of vehicles and drivers inspected without violation. Carriers and drivers are aware of when RoadCheck occurs because the dates are announced months in advance. Compliance rates are typically much higher than during regular roadside inspections, calling into question the usefulness of the indicator for measuring the effectiveness of the Ministry's commercial vehicle enforcement activities.

We noted that the Ministry tracks extensive data on carriers, commercial vehicles and drivers that could be used to establish performance indicators that would help measure the effectiveness of the Ministry's commercial vehicle enforcement activities. As well, we noted that the province's road safety annual report provides extensive road safety statistics for Ontario that could also be used to measure performance, including commercial vehicle specific statistics such as:

- number and rate of fatalities in large truck collisions;

**Figure 22: Road User Safety Division Performance Indicators, 2014–2018**

Source of data: Ministry of Transportation

Indicator	2014	2015	2016	2017	2018	Target
# of fatalities per 10,000 licensed drivers <sup>1</sup>	0.53	0.54	0.58	0.58 <sup>2</sup>	0.56 <sup>2</sup>	<b>0.82</b>
Commercial vehicle compliance rates (%) – RoadCheck	79	85	84	84	83	<b>80</b>

1. This performance indicator relates to all licensed drivers, not just those with a licence to drive a commercial vehicle.

2. 2017 and 2018 are based on preliminary data.

- selected factors relevant to fatal large truck collisions (for example, involvement of alcohol and vehicle defects); and
- commercial vehicles as a percentage of the total population of vehicles.

We did, however, note that there is usually a significant delay in publishing the annual report. The most recent publicly available annual report is for the 2016 calendar year, and the Ministry did not release the 2015 and 2016 reports until August 2019. The Ministry explained that production of finalized statistics cannot occur until the completion of necessary police and coroner investigations, in relation to serious collisions.

### RECOMMENDATION 19

To more effectively assess Ontario's performance in commercial vehicle safety and allow for informed decision-making in regard to commercial vehicle safety policy, we recommend that the Ministry of Transportation:

- develop relevant commercial vehicle safety-specific performance indicators and associated targets and take steps toward meeting those targets; and
- report these performance measures to the public.

### MINISTRY RESPONSE

The Ministry agrees with this recommendation and is actively developing key performance measures that leverage currently available data to support evidence-informed decision-making. This work will progressively develop measures, baselines and performance targets that enable continuous improvement in commercial vehicle safety programs. With the completion of this work, the Ministry will begin publicly reporting relevant performance measures to the public.

## Appendix 1: Commercial Vehicle Collision Statistics, 2008–2017

Source of data: Ministry of Transportation

	Registered	Collisions	Injuries	Fatalities
<b>Large Trucks<sup>1</sup></b>				
2008	221,555	16,416	3,666	130
2009	217,116	13,226	2,948	99
2010	221,445	13,981	3,213	109
2011	226,731	13,932	3,175	101
2012	230,738	13,491	3,091	100
2013	233,478	14,738	3,287	96
2014	237,435	16,306	3,615	109
2015	236,904	15,155	3,368	95
2016	244,773	14,259	3,145	113
2017 <sup>2</sup>	249,786	14,391	3,156	137
<b>Total</b>		<b>145,895</b>	<b>32,664</b>	<b>1,089</b>
<b>Buses<sup>3</sup></b>				
2008	30,462	3,926	1,176	10
2009	30,372	3,691	1,224	12
2010	31,072	3,824	1,301	14
2011	31,211	3,825	1,282	7
2012	31,806	3,792	1,226	6
2013	31,888	4,051	1,098	15
2014	32,291	4,176	1,009	12
2015	32,285	4,112	1,176	9
2016	33,415	3,573	1,205	8
2017 <sup>2</sup>	33,367	3,341	1,000	6
<b>Total</b>		<b>38,311</b>	<b>11,697</b>	<b>99</b>

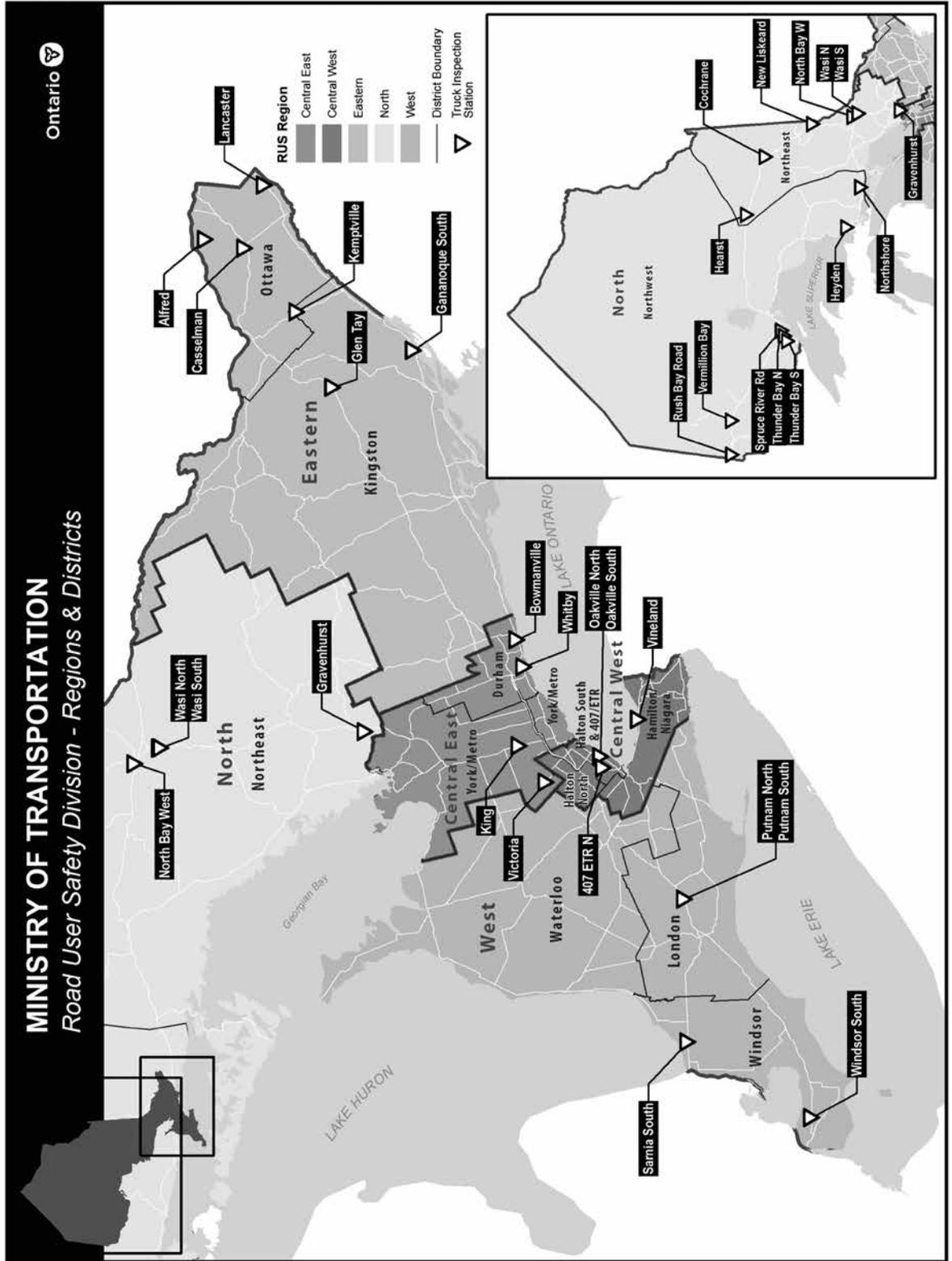
1. Large trucks include tow trucks, open trucks, closed trucks, tanker trucks, car-carriers, dump trucks and tractor-trailers. Note: The types of truck in the Ministry's registration data does not align with the types of truck indicated by police on collision reports. The Ministry indicated an accurate comparison between all types of trucks registered in Ontario and those involved in collisions is not possible.

2. 2017 data is preliminary.

3. Buses include municipal, intercity and school buses.

Appendix 2: Regions and Roadside Inspection Stations

Source of data: Ministry of Transportation



## Appendix 3: Roadside Inspections by District and Region, 2018

Source of data: Ministry of Transportation

Region	District	Roadside Inspection	% of Total Inspections	Enforcement Officers <sup>1</sup>	% of Total Officers
West	Kitchener	3,484	4	7	4
	London	11,117	13	18	10
	Windsor	12,957	15	22	13
	<b>Total</b>	<b>27,558</b>	<b>31<sup>2</sup></b>	<b>47</b>	<b>27</b>
Central West	407 ETR	2,358	3	4	2
	Halton	7,904	9	19	11
	Hamilton	7,911	9	15	9
	<b>Total</b>	<b>18,173</b>	<b>20<sup>2</sup></b>	<b>38</b>	<b>22</b>
Central East	Durham	5,027	6	12	7
	Metro Toronto <sup>3</sup>	2,728	3		
	Peel	1,375	2	17	10
	York	4,693	5		
	<b>Total</b>	<b>13,823</b>	<b>16</b>	<b>29</b>	<b>16<sup>2</sup></b>
East	Kingston	7,221	8	15	9
	Ottawa	9,745	11	18	10
	<b>Total</b>	<b>16,966</b>	<b>19</b>	<b>33</b>	<b>19</b>
Northern	North Bay <sup>4</sup>	3,218	4		
	Sudbury	1,263	1	14	8
	Timmins	1,807	2		
	Kenora <sup>5</sup>	1,653	2		
	Sault Ste. Marie	2,627	3	14	8
	Thunder Bay	1,577	2		
	<b>Total</b>	<b>12,145</b>	<b>14</b>	<b>28</b>	<b>16</b>
<b>Province Total</b>		<b>88,665</b>	<b>100</b>	<b>175</b>	<b>100</b>

1. Excludes supervisors, facility auditors and trainees.

2. Some percentages have been rounded.

3. Metro Toronto, Peel and York share these 17 enforcement officers.

4. North Bay, Sudbury and Timmins share these 14 enforcement officers.

5. Kenora, Sault Ste. Marie and Thunder Bay share these 14 enforcement officers.

## Appendix 4: A Facility Audit Evaluation and Audit Scores

Prepared by the Office of the Auditor General of Ontario

A facility standard audit includes an evaluation of the following:

- **Vehicle maintenance** – Examination of vehicle maintenance records including repairs, preventative maintenance, and annual and semi-annual inspections.
- **Hours of service** – Examination of driver logs and on-duty hours for compliance with the requirements of the Act, and comparison to supporting documentation such as receipts for bridge tolls, fuel, accommodations and meals, telephone, and GPS records.
- **Qualifications, records and reporting** – Review of conviction and collision records, driver qualifications, and driver abstracts. Driver abstracts are a five-year record of the driver’s collisions, safety-related offence convictions and inspection defects relating to the driver.

The audit produces a percentage compliance score for each of the above categories evaluated. Violations found during facility audits can result in charges against the carrier. If the carrier is convicted, the convictions are included on the carrier’s safety record (discussed in **Section 2.5.2**).

After an audit, carriers receive one of the following three facility audit scores:

- **Excellent** – If the overall audit score is 80% or greater and all categories examined receive a score of 70% or greater. Carriers that receive an excellent score may receive an “excellent” carrier safety rating, depending on their on-road safety performance.
- **Pass** – If the overall audit score is 55% or greater and no category examined receives a score below 50%. Carriers that receive a passing score receive at most a “satisfactory” carrier safety rating, but no higher, depending on their on-road safety performance.
- **Fail** – If the overall audit score is below 55% or any category examined receives a score below 50%. Carriers that receive a failing score are eligible for at most a “conditional” carrier safety rating. A carrier that receives a conditional safety rating cannot improve its rating unless it passes a subsequent audit. The Ministry may initiate a partial audit if only some categories of the audit need to be re-evaluated.

## Appendix 5: Commercial Vehicles that Motor Vehicle Inspection Station Mechanics Can Inspect, by Certification

Source of data: Ministry of Transportation

Vehicle Type	Restrictions	Certification		
		Automotive Service Technician	Truck and Coach Technician	Trailer Service Technician
Trucks	4,500 to 9,000 kg GVWR* - no air brakes	✓	✓	
	>9,000 kg GVWR - including air brakes		✓	
Buses	3,400 kg to 9,000 kg GVWR - no air brakes	✓	✓	
	≥3,400 kg GVWR - with air brakes		✓	
Trailers	<4,500 kg GVWR - no air brakes	✓	✓	✓
	≥4,500 kg GVWR - with air brakes		✓	✓

\* Gross vehicle weight rating.

## Appendix 6: Audit Criteria

Prepared by the Office of the Auditor General of Ontario

1. Roadside inspections of commercial vehicles and drivers are carried out in accordance with standards and are effective in detecting and deterring vehicle defects, and carrier and driver infractions.
2. Effective processes are in place for monitoring commercial vehicle carrier safety performance. Appropriate interventions and corrective actions are taken on a timely basis when carriers have poor safety records or pose a safety risk.
3. Effective monitoring—including audits, investigations, and where necessary, steps to facilitate corrective action—is taken to ensure motor vehicle inspection stations comply with legislative and Ministry of Transportation policy requirements concerning the inspection and certification of commercial vehicles.
4. Effective processes are in place to ensure commercial vehicle drivers have sufficient training, experience and knowledge to safely operate commercial vehicles. The public are made aware of how to effectively reduce their own risk when encountering commercial vehicles on Ontario's roads.
5. Human and physical resources, including inspection stations, are used efficiently and effectively to fulfill mandated responsibilities.
6. Accurate, timely and complete information is regularly collected to allow management to assess the performance of safety programs and to make informed decisions.
7. Meaningful performance indicators and targets to enhance commercial vehicle safety are established, monitored and compared against actual results to ensure intended safety outcomes are achieved. Results are publicly reported and corrective action is taken on a timely basis.