

# Assessing Long-Haul Truck Parking Supply to Reduce Freight Driver Fatigue and Collisions

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# Freight Safety in the News

## Fatal collisions involving transport trucks hit 10-year high in Ontario: police



Debris on Highway 400 following a deadly multi-vehicle crash south of Barrie, Ont., Wednesday, Nov. 1, 2017.

The Canadian Press

Published Monday, April 9, 2018 4:41PM EDT

Last Updated Monday, April 9, 2018 5:15PM EDT

ORILLIA, Ont. -- Ontario Provincial Police say they saw a five-year high for the number of fatalities from collisions on roads they patrol in 2017, including a 10-year high for the number of people killed in collisions involving a transport truck.

They say 343 people died in collisions in 2017 compared to 307 in 2016, with the increase coming from driver inattention, speed and not wearing seatbelts.

The OPP say 91 people died in collisions that involved a commercial transport truck in 2017.

CANADA

June 15, 2017 1:55 pm

Updated: June 15, 2017 4:24 pm

## 1 in 5 fatal crashes involves large commercial vehicles: OPP

Global News RADIO  
980 CFPL



By Jacquelyn LeBel

News Announcer AM980



FILE PHOTO.

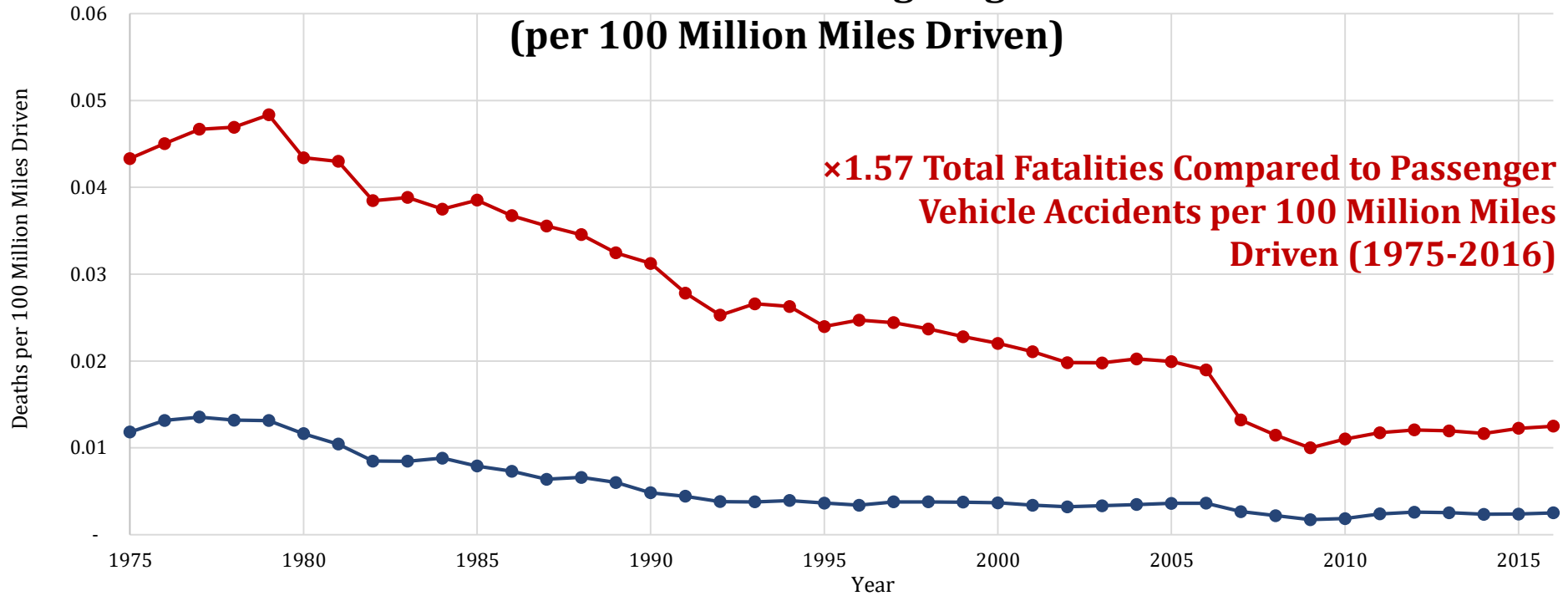
THE CANADIAN PRESS/AP/David Zalubowski

OPP have released startling statistics as Operation Corridor gets underway.

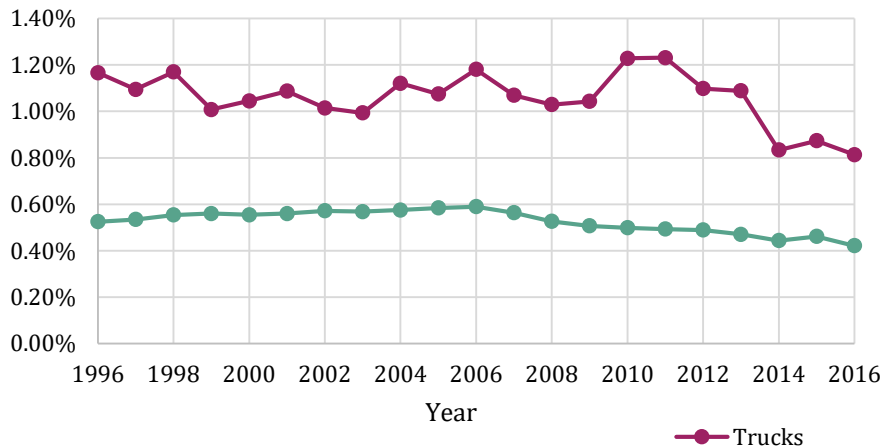
On Thursday and Friday, police will be targeting large commercial vehicles to make sure they are in proper operating condition and that drivers are following the rules of the road.

# Deaths in Crashes involving Large Trucks

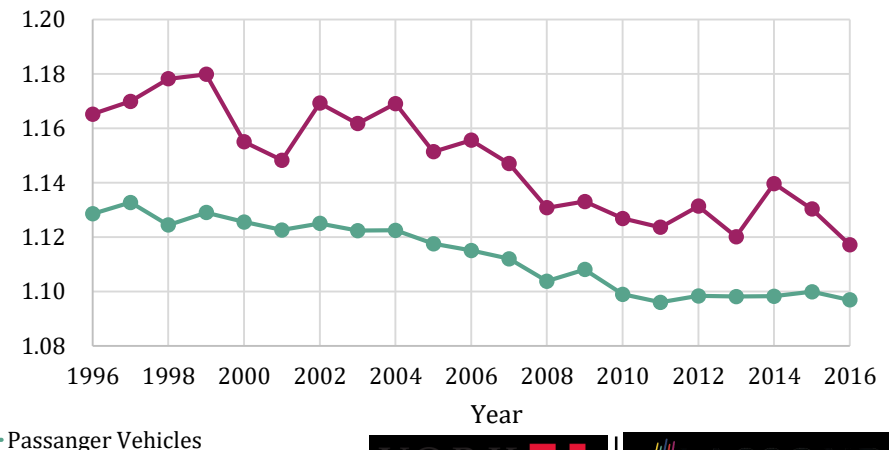
Truck Occupants Others



## Percent of Accidents that are Fatal



## Fatalities per Fatal Accident



Source: (Federal Motor Carrier Safety Administration, 2018)



# Fatigue, HOS, and ELD Mandates

- **Fatigue** is often cited as a contributing factor to freight collisions.
- **Hours of Service (HOS) Laws** have been enacted with the intent of reducing driver fatigue.
- **Electronic Logging Devices (ELDs)** can automatically track HOS.
  - The United States began mandating ELDs in late 2017;
  - Canada is expected to follow suit within the next two years.

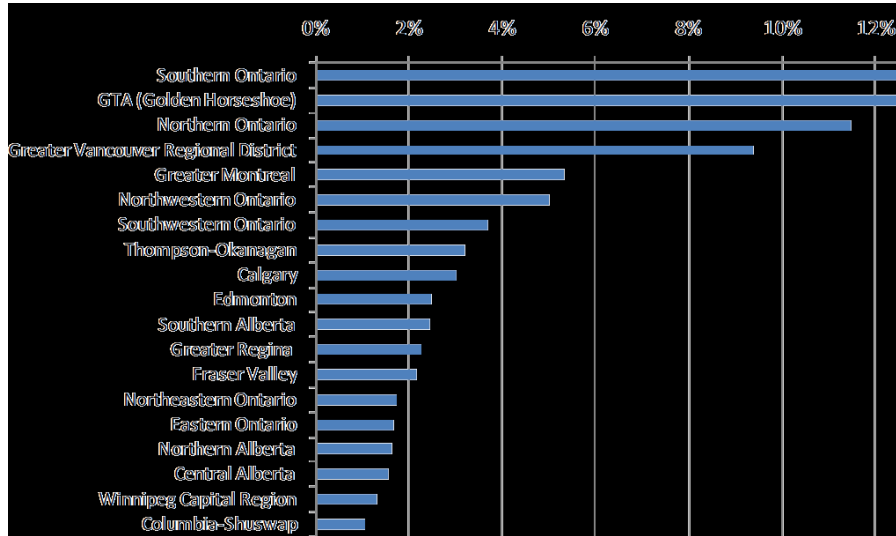


(Post Wire Report, 2018)

**Problem**: All these issues require adequate parking; however, a lack of truck parking is often identified in many regions.

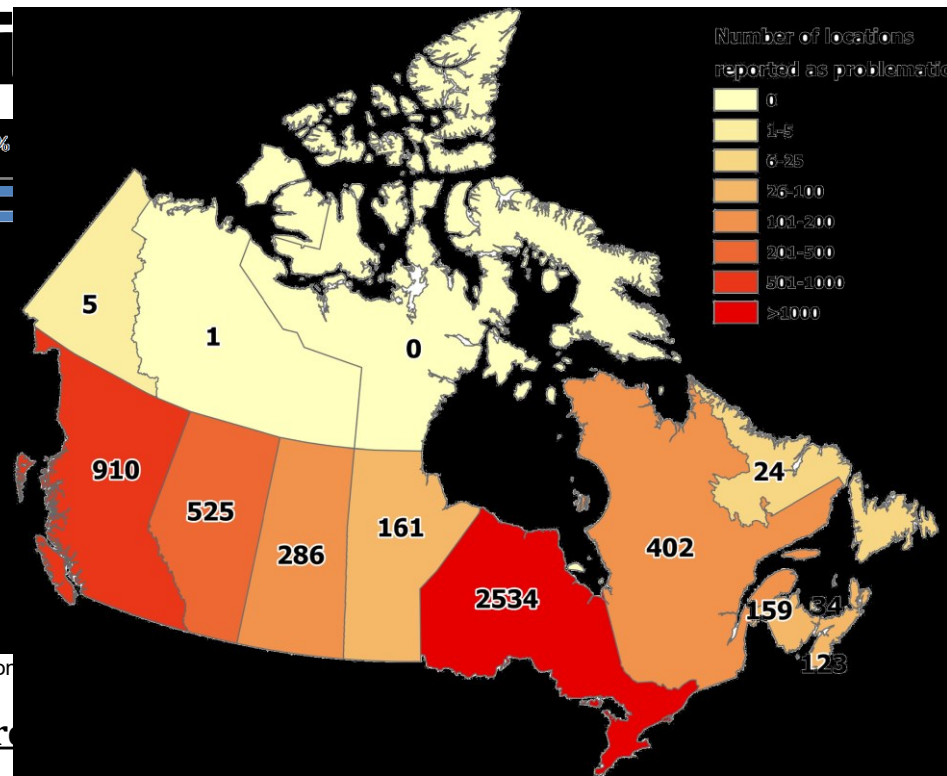


# Truck Parking Deficit



Proportion of all declarations (declared and imputed regions)

## Regions Reported to have Problematic








- Truck drivers report a lack of truck parking throughout Canada, especially in Southern Ontario (same in the United States).
- Subsequent analyses express **safety and financial concerns**.
- However, often **only public rest areas** are considered in these studies.





# Identification and Classification

- A **systematic classification scheme** based on **geospatial data** can be used to identify and classify truck parking locations.

## Legal Parking Locations

-  Public Rest Areas and Gas Stations
-  Weigh Stations
-  Publicly Accessible Truck Parking
-  Privately Accessible Truck Parking
-  Legal Roadside Parking

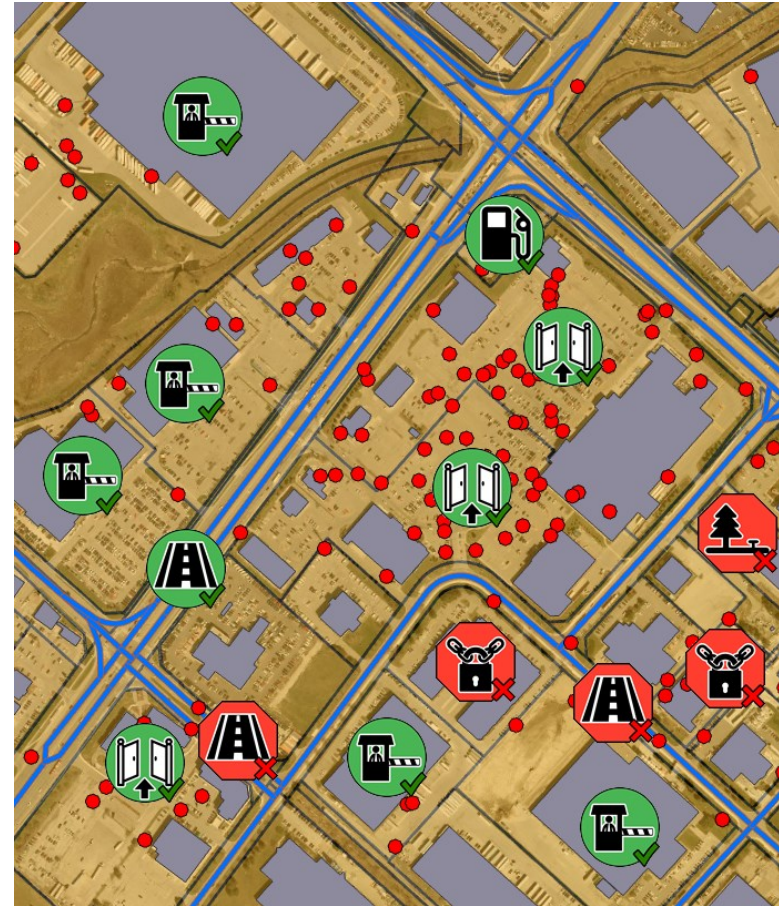
## Illegal Parking Locations

-  Illegal Roadside Parking
-  Illegal Highway Ramp Parking
-  Illegal Parking on Public Property
-  Illegal Parking on Private Property

★ = Typically considered in freight parking analysis

# Benefits

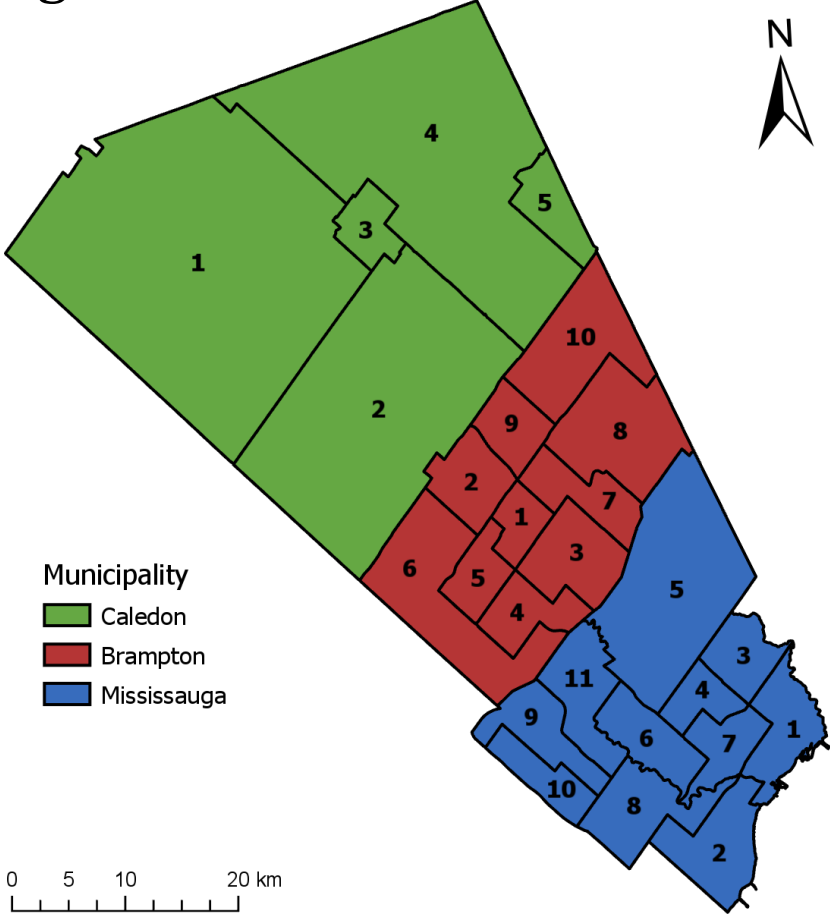
- Uses **geospatial data** commonly available to municipalities;
- Avoid **unnecessary expensive** infrastructure upgrades;
- Identify locations where investment will have **greater safety impact**;
- Identify locations for additional **enforcement**.



Note: Data has been generated to simulate typical layout and classifications do not reflect actual conditions. Animation is for explanatory purposes only.

# Acknowledgements

- **Advisors:** Dr. Kevin Gingerich and Dr. Peter Park
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creative

passionate

rational

confident

ingenious



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