

CHAPTER 14

Making Large Truck Travel Safer

KEY TOPICS

- commercial driver license (CDL)
- regulations

GOALS

- Continue to inspect commercial motor vehicle drivers and their vehicles to ensure compliance with Federal Motor Carrier Safety Administration (FMCSA) regulations.
- Continue public education associated with commercial motor vehicle transportation.
- Continue to improve roadway design and technology.

BACKGROUND

Safety is ... the highest transportation priority, and America is depending on this new agency to bring about a renewed will to reduce deaths in truck and bus crashes. This is a fresh start and we will take bold and aggressive action to create change.

U.S. Department of Transportation Secretary Rodney Slater
announcing FMCSA formation in 1999

Our goal: reduce large truck related fatalities by 50% by 2010.

FMCSA

Year after year, large trucks are involved in thousands of crashes—between 4,000 and 5,000 deaths annually during the decade of 1985 to 1995. By a wide margin, the fatalities are occupants of other vehicles as opposed to truck occupants (greater than 6:1 in 1995). In this discussion, large trucks include all trucks with a gross weight over 10,000 pounds.

In May 1999, the U.S. Department of Transportation established a national goal to reduce the annual number of truck-related fatalities by 50% by the end of calendar year 2009 and then initiated the Motor Carrier Safety Improvement Act of 1999 to strengthen the CDL program, provide additional funding to states, and increase compliance reviews and inspections. As a result of this legislation, the Federal Motor Carrier Safety Administration was established within the U.S. Department of Transportation in January 2000.

Interstate motor carriers are regulated by FMCSA. Because they dispatch their vehicles throughout the U.S. interstate and state highway system, a large percentage of the commercial drivers traveling on Iowa highways are

14. Making Large Truck Travel Safer

trained and licensed outside of Iowa. National safety and regulation programs are critical to the success of truck-related highway safety in every state throughout the country.

Poor driver performance, including fatigue, is a major contributing factor in truck safety, as is an inadequate level of awareness of trucks by other drivers on the road.



NATIONWIDE

Many large truck regulations may only be addressed at the national level, through FMCSA.

National Facts

FMCSA reported the following data as of October 1, 1999 (*Fact Sheet*):

- 505,900 active interstate motor carrier companies were listed in the Motor Carrier Management Information System census file.
- 38% of the crash-related factors were assigned to truck drivers involved.
- 65% of the crash-related factors were assigned to passenger car drivers involved.
- For both kinds of drivers, the most frequent crash-related factors were driving too fast, running off the road, out of lane, and failure to yield the right-of-way.

The National Highway Traffic Safety Administration (NHTSA) reported the following data for 1999 (*Traffic Safety Facts—Large Trucks*):

- Large trucks accounted for
 - 3% of all registered vehicles
 - 7% of total vehicle miles traveled
 - 9% of all vehicles involved in fatal crashes
- One out of eight traffic fatalities resulted from a collision involving a large truck.
- 475,000 large trucks were involved in traffic crashes in the United States.

14. Making Large Truck Travel Safer

- o 4,898 were involved in fatal crashes.
- o 5,362 people died in crashes involving large trucks.
- o 142,000 were injured in crashes involving large trucks.
- Large trucks were more than twice as likely as other vehicles to be struck in the rear in two-vehicle fatal crashes (17% and 7%, respectively).
- 68% of the fatal crashes occurred in rural areas, 67% were during the daytime, and 79% were on weekdays.
- Only 1% of the large-truck drivers involved in fatal crashes had a blood alcohol concentration (BAC) of 0.10 or greater (this compares to 17% for passenger cars, 20% for light trucks, and 28% for motorcycles).
- Drivers of large trucks were *less* likely to have a previous license suspension or revocation than were passenger car drivers (9% and 13%, respectively).
- Drivers of large trucks were *more* likely to have a previous speeding conviction compared to passenger car drivers (30% and 20%, respectively).

IOWA

Iowa law allows for the denial, suspension, or revocation of the vehicle registrations assigned to the motor carrier when the motor carrier has been placed out of service because they are determined unfit or unsafe by FMCSA. Iowa uses all data systems available to support improved large truck safety in Iowa:

- As lead state in the Performance and Registration Information Systems Management (PRISM) program, Iowa will continue to target carriers that have a disproportionate number of crashes. This process will identify and prioritize motor carriers for on-site reviews.
- Iowa uploads all commercial motor vehicle inspections to FMCSA's Motor Carrier Management System (MCMIS). The inspection is downloaded to the roadside officer and into the Traffic and Criminal Software (TraCS) in a program called the Inspection Selection System (ISS), which is a prioritization of carriers' vehicles/drivers for roadside inspection. The Past Inspection Query (PIQ) is another program utilizing electronic exchange of roadside inspection data to assist the roadside officer in tracking drivers/vehicles placed out of service.

Iowa's long-range transportation plan includes a focus on our commercial industrial network of four-lane or minimum Super 2 roadways that marry

14. Making Large Truck Travel Safer

the development of an efficient system with the benefits of safety design elements.

Iowa Facts

The Iowa Department of Transportation (Iowa DOT) reports the following crash data for 1999:

- 25% of all interstate traffic vehicles were trucks.
- 17.5% of interstate crashes involved trucks.
- 31.6% of all interstate fatal crashes involved trucks.
- In the 79 fatal crashes involving trucks, only 10 of the 81 fatalities were truck occupants.

Iowa Public Opinion

Iowa SMS Public Opinion Survey

The 1999 Iowa Safety Management System (Iowa SMS) *Iowa Strategic Highway Safety Plan* included a number of potential strategies for dealing with some of these risk elements. The Iowa SMS public opinion survey asked over 1,000 Iowans whether they would support these strategies.

Goals:

- 52% of respondents said making commercial truck travel safer should receive high emphasis over the next five years.

Strategies:

- 88% of respondents support increasing truck and driver inspections.

POTENTIAL STRATEGIES

Legislation, Policy, and Enforcement

- Continue a commercial driver inspection program statewide and in high-crash corridor areas to identify fatigued drivers, hours-of-service violations, and unqualified drivers.
- Increase the safe operating conditions of trucks and buses by inspecting commercial motor vehicles for safety requirements to identify critical safety defects and remove unsafe vehicles from the roadways.
- Undertake a driver history initiative to track citations from issuance to disposition to identify adjudications to ensure penalties assessed are commensurate with the seriousness of the violation.



14. Making Large Truck Travel Safer

- Continue to monitor truck differential speeds for both safety impacts and public perspectives in other states.
- Monitor hours of operation studies and proposed changes from FMCSA.
- Review the FMCSA long-term strategy for improving commercial truck and bus safety that may apply to Iowa (2010 Performance and Planning Project).
- Enhance enforcement, weigh station, and law enforcement initiatives to maintain coverage and deter chronic violators.

Education and Public Awareness

- Continue to expand our Share the Road/No Zone campaign, driver education units, and other safety messages relevant to driver errors associated with commercial motor vehicles.
- Continue educational outreaches to the motor carrier industry and commercial motor vehicle drivers to ensure they are aware of motor carrier safety and hazardous materials regulatory requirements.
- Use more symbol signs for universal language to accommodate licensed immigrant drivers.

Design and Technology

- Continue mainline efforts to track motor carrier performance roadside.
- Continue to research new technologies that can identify driver fatigue.
- Study and correct overhead ineffective sign visibility and reflectivity for high riding motor carrier driver position.
- Review geometric issues, including grade acceleration/deceleration, lanes, etc. at nonfreeway locations where trash haulers and other large trucks must operate.
- Conduct analysis where crashes are prevalent and apply location specific solutions.
- Monitor variable truck speed limits impact on safety in other states. (e.g., cars 75 mph and trucks 65 mph).

Other Initiatives

- Expand Iowa's TraCS interactive inspection, accident, citation, and operating while intoxicated (OWI) consent forms to speed up the transmission and sharing of crash, driver, and vehicle data.
- Include the motor carrier industry in multidisciplinary safety program efforts.

14. Making Large Truck Travel Safer

SUCCESSSES AND STRATEGIES IMPLEMENTED

- Educational outreaches to the motor carrier industry and commercial motor vehicle operators are ongoing.
- At the request of the 1999 Iowa General Assembly, the commercial vehicle parking needed or available in Iowa's transportation system was studied by the Iowa DOT Task Force on Commercial Truck Parking (Center for Transportation Research and Education [CTRE] Project 99-56).
- As a result of the federal regulations passed on March 31, 1999, motor carriers were required to install retroreflective tape or reflex reflectors on their older trailers by June 1, 2001.



NOTE

The potential strategies in this chapter do not represent specific recommendations of the Iowa SMS Coordination Committee or any agency, group, or individual represented in Iowa SMS. The strategies represent a range of alternatives for legislators, department or agency directors, local governments, and citizen groups to consider when they elect to address a specific highway safety concern.

This toolbox is a living document that will continue to provide information, direction, and ideas for highway safety decision makers. Any strategies selected for implementation by Iowa SMS or any other entity will require further development through identifying potential partners, entities impacted, potential funding, steps for implementation, evaluation, and other pertinent tasks.

RESOURCES

Information in this chapter is drawn from many individuals and sources. Known sources are listed here. **Contributors:** Valerie Hunter (primary), Steve Feldmann, Brian Kohlwes, Shirley McGuire, Sharon Owenson, and Mary Stahlhut.

American Association of State Highway and Transportation Officials

Strategic Highway Safety Plan (Sept. 1997):

A comprehensive plan to substantially reduce vehicle-related fatalities and injuries on the nation's highways.

safetyplan.tamu.edu/plan/toc.asp

Center for Transportation Research and Education, Iowa State University

www.ctre.iastate.edu/index.html

Commercial Vehicle Parking (Project 99-56):

www.ctre.iastate.edu/Research/detail.cfm?projectID=296

14. Making Large Truck Travel Safer

Federal Highway Administration

safety.fhwa.dot.gov

The Unsafe Driving Acts of Motorists in the Vicinity of Large Trucks:

safety.fhwa.dot.gov/media/pdf/Udarepo.pdf

Federal Motor Carrier Safety Administration

www.fmcsa.dot.gov

Fact Sheet (Oct. 1, 1999):

www.fmcsa.dot.gov/factsfigs/mchsstats/factsheet.htm

1999 Large Truck Crash Overview:

www.fmcsa.dot.gov/factsfigs/99overview.htm

Large Truck Crash Facts:

ai.volpe.dot.gov/CrashProfile/crash.asp?file=National_Profiles/

1999LargeTruckCrashFacts.pdf

Motor Carrier Safety Progress Report (Jan. 2000):

www.fmcsa.dot.gov/pdfs/01safetyprog.pdf

Safety Action Plan 2000–2003

2010 Performance and Planning Project:

www.fmcsa.dot.gov/Pdfs/SP_PUBLIC_version3.pdf

Iowa Governor's Traffic Safety Bureau

www.state.ia.us/government/dps/gtsb/index.htm

Large Truck Fact Sheet (June 1999):

www.state.ia.us/government/dps/gtsb/gtsft_7.htm

Iowa Safety Management System

www.IowaSMS.org

Iowa Strategic Highway Safety Plan (Aug. 1999):

www.iowasms.org/pdfs/ishsp.pdf

Iowa Strategic Highway Safety Plan Goals and Strategies: Statewide Survey of Adults (Oct. 2000):

www.iowasms.org/pdfs/publicopinionsurveyexecsumm.pdf

National Highway Traffic Safety Administration

www.nhtsa.dot.gov

Traffic Safety Facts—Large Trucks (1999):

www.nhtsa.dot.gov/people/nca/pdf/Truck99.pdf