

MTSC **MICHIGAN TRUCK SAFETY COMMISSION**



Michigan Truck Safety Strategic Plan 2016-2019

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INTRODUCTION

In the mid-1980s, there was a negative perception of the Michigan trucking industry as a result of problems such as passenger car/truck crashes, hours of service violations, load spillage, and excessive speed by commercial drivers. In order to address these issues, the Michigan Trucking Association (MTA), the Michigan Brotherhood of Teamsters, the Michigan State Police (MSP), the Michigan Department of Transportation (MDOT), and the Michigan Legislature developed legislation establishing the Michigan Truck Safety Commission (MTSC) (7). Although early legislation discussions focused on increased enforcement, education and training emerged as focal points of the final legislation, with research and enforcement as sidebars (7). The MTA and the state's trucking industry were committed to enhancing the education and safety training of truck drivers and agreed to support an increase in truck registration fees to accomplish that goal.

In 1988, the Michigan Legislature created the MTSC with the enactment of Public Act 348 whose primary provisions were:

- Establishment of an eleven-member commission representing a cross-section of transportation safety groups and individuals. Seven members are appointed by the governor with the advice and consent of the Senate. The remaining four members, all of which are public service positions, were by state statute.
- Development of a truck safety fund administered by the Office of Highway Safety Planning (OHSP) within the Michigan State Police.
- Expenditure of truck safety funds to conduct truck driver safety education programs, encouraging, coordinating and administering grants for research and demonstration projects in truck driver safety education, and conduct special enforcement programs within the MSP Commercial Vehicle Enforcement Division (CVED).

This Truck Safety Strategic Plan for 2016-2019 for Michigan has been developed under the guidance, support and supervision of the MTSC.

DEVELOPMENT OF SAFETY STRATEGIC PLAN

Crashes related to heavy trucks account for a significant number of injuries and fatalities. Efforts to reduce these crashes need to focus on the development of strategies that address issues from the behavioral, environmental and operational perspectives. A safety strategic plan should set focus areas, define priorities, resources and processes for managing the attributes of the road, the driver, and the vehicle, so as to achieve the highest level of highway safety. This can be achieved by integrating efforts of relevant disciplines, stakeholders and agencies.

Achieving the desired results requires vast cooperation from the public and private sectors of the industry. The private sector, trucking industries, and motor carriers play the most fundamental role of ensuring compliance with regulations and implementing safety processes beyond compliance that further enhance safety. By focusing largely on regulation and enforcement, while also involving engineering and educational initiatives, the federal, state, and local governments play essential roles in the efforts to reduce crashes and improve safety.

In 1998, the American Association of State Highway and Transportation Officials (AASHTO) approved its Strategic Highway Safety Plan, which was developed by the AASHTO Standing Committee for Highway Traffic Safety with the assistance of the Federal Highway Administration (FHWA), the National Highway Traffic Safety Administration (NHTSA), and the Transportation Research Board (TRB) Committee on Transportation Safety Management. The plan includes strategies in 22 key emphasis areas that affect highway safety. The plan's goal was to reduce traffic-related fatalities to 1.0 (or less) for every 100 million miles traveled. Each of the 22 key emphasis areas includes strategies and an outline of what is needed to implement the strategy. One of those emphasis areas is "Commercial Motor Vehicle Safety."

In Michigan, the Governor's Traffic Safety Advisory Commission (GTSAC) commissioned the development of a statewide and comprehensive strategic highway safety plan (SHSP) in October 2004. The GTSAC formed a comprehensive working group consisting of a cross-section of the traffic safety

community in Michigan, and initially arrived at twelve emphasis areas, one of which is commercial vehicle safety. Appropriately, the MTSC was identified as the entity to address commercial vehicle safety issues for Michigan and also serve as the “Action Team” to address issues within the GTSAC. Consequently, this plan serves as both the MTSC Safety Strategic Plan and as the Action Plan for the Commercial Vehicle Safety Action Team of the GTSAC identified in the 2013-2016 SHSP update.

Source of data used to develop the plan

This plan was developed based on national and Michigan’s statistics of large truck, buses and Vehicle-Miles-Traveled (VMT). The national statistics were obtained from the *2015 Large Truck and Bus Crash Facts*, compiled by the Analysis Division of the Federal Motor Carrier Safety Administration, FMCSA (1). FMCSA used data from different sources. Fatal crash data were obtained from the Fatality Analysis Reporting System (FARS) (10), while estimates of injury and property-damage-only crashes were from the General Estimates Systems (GES) (11). Data on trucks and buses involved in crashes were obtained from the Motor Carrier Management Information System (MCMIS) Crash File (12), and the estimates of VMT by vehicle type were from the Federal Highway Administration (FHWA)’s Highways Statistics for 2014 (13). Michigan crash data were obtained from the OHSP, while the Michigan VMT data were obtained from the Michigan Department of Transportation (MDOT). In addition to these, data collected through a survey of CMV drivers was used.

Commercial Motor Vehicle crash data analysis

In 2015, the United States experienced a total of 6,295,166 vehicle crashes. Out of the total, 1.1 percent of crashes (i.e., 67,257) involved buses and 6.6 percent of crashes (i.e., 414,598) involved large trucks. In total, 7.6 percent of all crashes (i.e., 479,838) were CMV-related crashes in 2015. Comparing 2015 to 2014, there

was a 1.4 percent decrease in crashes involving buses, 0.8 percent increase in crashes involving large trucks and an overall 0.9 percent increase in crashes that involved large trucks or buses (1).

While changes in crashes over time are inevitable, it is always important to account for the exposure. Crashes may increase because of the increase in VMT. In this regard, a comparison of VMT trends and crash trends was performed. Figure 1a and 1b show a general trend and comparison between the percentages of VMT by vehicle type and percentages of crashes observed by vehicle type, respectively. The graphs show that while the proportion of truck and bus VMT has remained steady over years, the proportion of crashes involving trucks and buses has an increasing trend, with a notable jump from 2013 to 2014. Also, the graphs show that the contribution of buses to CMV-related crashes and VMT is relatively low when compared with the contribution of large trucks.

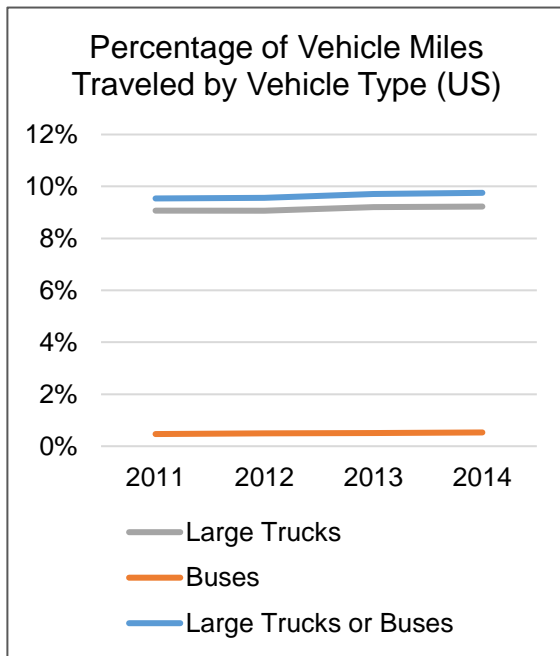


Figure 1a. Vehicle miles travelled by vehicle type

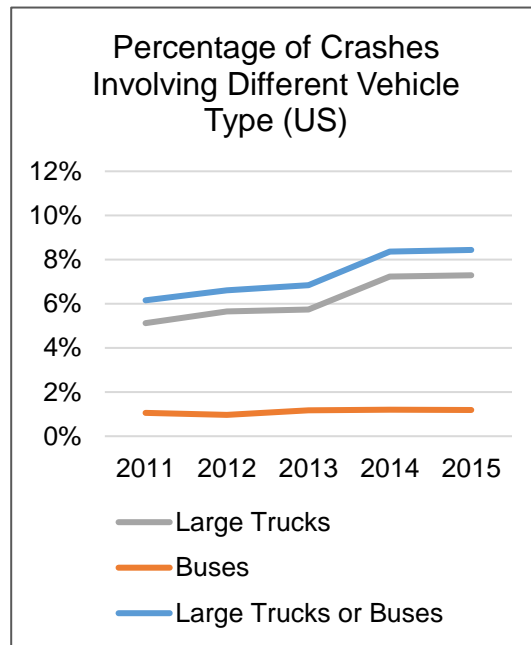


Figure 1b. Percentage of crashes involving CMVs

(Source: VMT and crash data from FHWA, Highways Statistics 2014, and 2015 Large Truck and Bus Crash Facts)

For the period of 2011 to 2015, Michigan experienced an increase of 2.9 percent in Commercial Motor Vehicle-Miles-Traveled (CVMT) and an increase of 3.3 percent VMT by other vehicles. For the same period, Michigan experienced a disproportional increase of about 14.5 percent in crashes involving CMVs and an increase of 5.9 percent in crashes that not involving CMVs. Crashes involving CMVs are often more severe than other crashes. For 2015 alone, 0.66 percent of CMV-related crashes were fatal (81 crashes) while 0.29 percent of crashes that did not involve CMVs were fatal (860 crashes). This may suggest that crashes involving CMVs resulted in more fatal crashes than crashes that did not involve CMVs, by proportions. CMVs tend to be significantly heavier, stiffer and higher than other vehicles on the road. Therefore, in a crash, other vehicle absorbs most of the crash energy, leading to severe injury to the occupants of that other vehicle.

Figure 2 shows a comparison of the trends of crashes involving CMVs in Michigan and nationwide from 2004 to 2014. While the two trends follow each other well (generally), there are small differences that can be observed. For example, the period from 2009 to 2012, the trend of crashes involving CMVs in Michigan was different from that of the nation – while the nationwide pattern fell from 2009 to 2010, the trend for Michigan crashes was raising. However, from 2011 to 2012, the trend for Michigan fell while the nationwide trend rose.

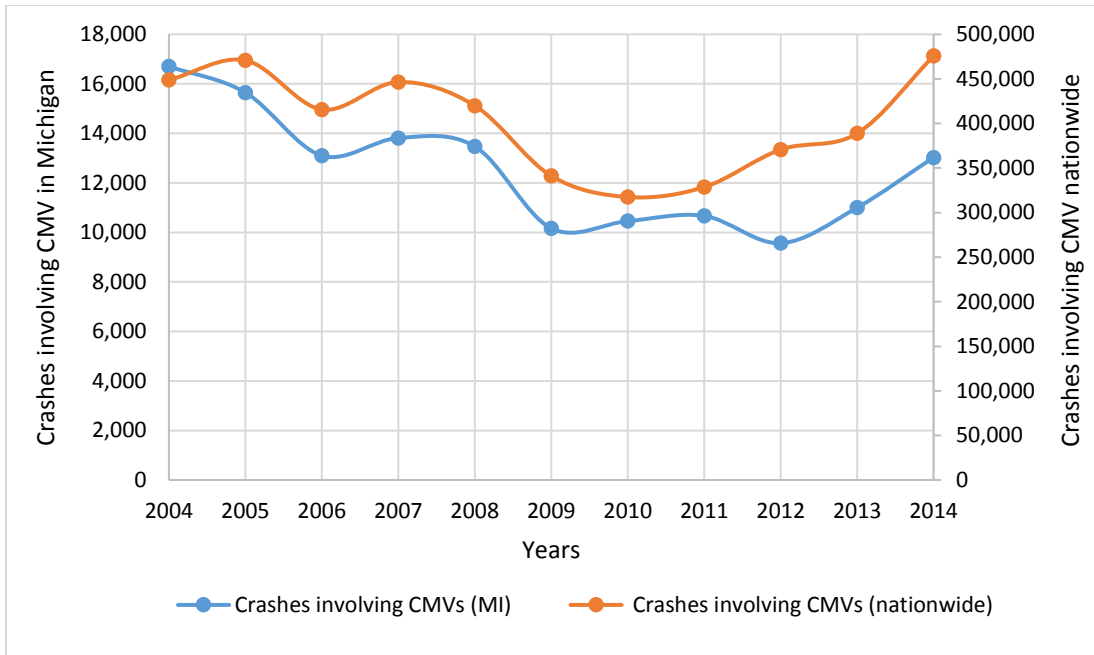


Figure 2. National and Michigan crashes involving CMV from 2004 to 2014

Detailed analyses of circumstances surrounding crashes involving CMVs were conducted to identify potential causes of these crashes, and consequently propose appropriate strategies to mitigate the causes. The details of the analyses conducted are documented in the companion report entitled “*Developing Michigan’s Truck Safety Strategic Plan for 2016-2019: Analysis Report.*” A brief summary of findings from this report and other data analyses relevant to the development of this plan are as follows:

1. From 2011 to 2015, overall crashes involving trucks increased by 14.5 percent while vehicle miles travelled by CMV increased by 2.9 percent. This indicates that there has been an increase in crashes involving CMV which is disproportional with VMT changes. Factors associated with increase in crashes involving CMVs need to be identified and addressed to increase CMV and overall traffic safety in Michigan.
2. Fatalities of occupants from other vehicles is higher than for CMV occupants. About 90 percent of the fatalities are occupants of other vehicles.

3. From the 2011-2015 crash data, hazardous actions that were more committed by CMV drivers than other drivers in crashes involving CMV were, “improper turn”, “improper/no signal” and “improper backing.” Emphasis on how to share the road may be necessary to minimize such hazardous actions.
4. “Unable to stop within assured clear distance” was the most common hazardous action committed by all drivers in crashes involving CMVs. About 17 percent of CMV drivers and 22 percent of other drivers were coded with “unable to stop” as hazardous action committed. These percentages may suggest a need for more education on how to behave around and near CMVs while driving due to their inability to stop at assured clearance and for other drivers not to drive too close to them.
5. Truck defects have been associated with different types of crashes (2). Tires or wheel defects have been associated with single motor vehicle crashes, sideswipe crashes and head-on crashes. The analysis showed that about 34 percent of defective trucks involved in single-vehicle crashes that occurred in 2011-2015 had tire or wheel defects. It is, however, important to note that vehicle defects are rarely coded, therefore this statistic should not be generalized. Nevertheless, emphasis on the importance of routine maintenance may minimize CMV-related crashes potentially caused by vehicle defects. Also, facilitating vehicle inspection by implementing technologies that assist officers in identifying trucks with brake defects may have a positive impact on such crashes.
6. Since 2011, the number of Commercial Driver’s Licenses (CDLs) in Michigan has decreased by nearly 15 percent. While this may not be a direct and the only factor causing driver shortage, it may be an indicator of potential driver shortage now or in the future if this trend continues. The current shortage of drivers may also be associated with the lack of interest in truck driving as a career. Shortage of qualified drivers has the potential to increase the number of unqualified drivers behind the wheels. Strategies

that promote truck driving as an alternative career, especially to high school students, may be among the solutions to this problem.

MISSION

To improve truck safety by providing Michigan's trucking industry and citizens of Michigan with effective educational programs and by addressing significant truck safety issues.

VISION

Toward Zero Deaths on Michigan Roadways.

OBJECTIVES

In order to achieve the mission and the vision of the MTSC, the following objectives were identified:

- Reducing the CMV related fatality rate (fatalities per 100 million commercial motor vehicle miles travelled) below the national rate.
- Reduce CMV related crashes through deployment and use of effective truck safety and enforcement technologies.
- Develop safe driving culture among users through education and public awareness programs.
- Improve truck drivers' recruitment and training programs.

EMPHASIS AREAS

To support the mission and vision of the MTSC, emphasis areas and strategies were identified. The emphasis areas were derived from an analysis of Michigan crash data and a survey of truck drivers. Also, a focus group meeting with the MTSC Commissioners was held to refine the emphasis areas as well as the strategies. Additionally, review of other states' strategic highway safety plans and other relevant literature (see the bibliography) was conducted to identify emphasis areas and strategies relevant for Michigan. The following seven emphasis areas were identified:

1. CMV Driver Training and License Programs
2. Vehicle Maintenance and Inspection
3. Technology for Safety and Efficiency
4. Seat Belt Use, Fatigue and Distracted Driving
5. Driver Shortage
6. CMV Driver and General Public Awareness
7. Truck Safety Management and Best Practices

Emphasis Area 1: CMV Driver Training and License Programs

Background

Driver action or inaction have been documented as the major cause of crashes involving CMVs. The Large Truck Crash Causation Study by the Federal Motor Carrier Safety Administration (FMCSA) found that driver actions or inactions were the critical reasons for 87 percent of crashes. Driver training and license programs are very important to help drivers learn potential driving problems and how they can improve driving and avoid the potential to cause crashes. In December 2015, the University of Michigan Transportation Research Institute (UMTRI) completed a study (3) commissioned by OHSP to assess the educational and training needs of commercial vehicle drivers and identify opportunities for improvements in Michigan. The study found that among current truck drivers in Michigan, approximately 60 percent prepared for the CDL test by enrolling in programs at community colleges, private truck driving schools, or schools operated by trucking companies. The study also found that the scope and quality of training programs vary considerably partly because there is no standardized training curriculum, and most programs cover general competencies. Many programs do not offer adequate behind the wheel driving time and have outdated equipment resulting in a lack of exposure to modern telematics.

Among the important trainings that CMV drivers need is understanding and management of the dynamics of their vehicles. For example, how the CMV configuration and weight affect braking maneuver, is important. Being able to control and stop within safe distance is critical for the safe operation of a CMV. A skid pad enables practical training of CMV drivers on how to manage the dynamics of their CMVs when braking.

Model Strategies

- Assess and address driver training needs through professional driver coaching (7).

- Advocate thorough evaluation of candidate examiners, including criminal background and driver history checks (7).
- Support and promote efforts to increase behind-the-wheel-time for CDL students (3).
- Continue to explore the feasibility and cost-effectiveness of opening a skid pad facility in Michigan and pursue the options presented based on the findings (3, 7).
- Continue providing the Driver Performance Measurement training to truck drivers through the Professional Driver Coaching program.
- Improve defensive driving knowledge through the National Safety Council's Defensive Driving Course for the Professional Truck Driver (7).
- Continue to educate motor carriers and drivers on the driver metrics in the Federal Motor Carrier Safety Administration's Compliance, Safety, and Accountability (CSA) program (7).
- Advocate standardization of entry-level driver training during and after orientation programs to include state and federal regulations (in addition to driving skills) (3).
- Underscore the importance of training in stopping, backing maneuvers, and skid control for entry-level drivers (3).
- Expand education and consider periodic training for motor carriers and drivers with CDLs through online courses, classroom, driving, etc (3, 7).
- Support minimum training standards for CDL that prepares the student for a career as a CMV driver, not just for passing the CDL test (3).
- Advocate for the control and monitoring of CDL training to make sure only qualified drivers are kept behind-the-wheel.

Emphasis Area 2: Vehicle Maintenance and Inspection

Background

Trucks need to be inspected and maintained frequently to avoid crashes caused by vehicle defects. Roadside inspections routinely identify sizeable proportions of trucks that need to be taken out of service immediately because they are considered too hazardous to continue operating. Michigan's 2011-2015 crash data shows that about 11 percent of non-PDO crashes involving a defective CMV are fatal crashes. Review of crash reports indicated that brakes and tire or wheel defects were the common defects reported for these crashes. Again, it is important to mention that truck defects are not commonly coded, except when it is obvious. Vehicle maintenance programs may minimize CMV-related crashes potentially caused by vehicle defects.

Inspection reviews play an important part in removing potential defective CMVs from the road. For the period 2009-2015, the Michigan Special Truck Enforcement Team had conducted roadside inspections as tabulated in Table 1. The statistics in Table 1 demonstrate the need to continue inspections of trucks. Such efforts should be sustained in order to reduce future risks resulting from defective trucks operating in Michigan roads.

Table 1. Special Truck Enforcement Team's 2009 – 2015 Statistics

Year	Safety Inspections	Verbal Warnings	Total Vehicle Stops	Total Citations	Speeding	Moving Traffic	Seat Belts	CDL	Illegal Parking	Log Book
2009	6,045	2,943	6,913	5,743	1,268	135	802	161	140	486
2010	5,760	2,652	6,623	5,481	1,137	164	831	120	150	458
2011	4,718	2,731	5,768	4,213	821	150	547	111	97	265
2012	6,491	4,050	8,053	5,459	1,265	219	640	123	126	373
2013	7,169	6,038	12,557	8,283	1,994	345	1,078	239	139	495
2014	8,950	7,007	13,783	8,889	2,396	378	1,087	252	146	341
2015	7,678	5,528	11,377	7,402	2,089	360	855	226	124	389

Model Strategies

- Highlight the importance of driver training on how to identify problems with brake systems and tires to minimize the chances of their vehicle to be placed out-of-service (OOS) in an inspection (3).
- Promote “Periodic Inspection Training” seminars for maintenance personnel (7).
- Encourage the increase and strengthening of truck maintenance programs and inspection performance (7).
- Support efforts in conducting inspections, compliance reviews, and weigh station operations (7).
- Advocate efforts to conduct targeted enforcement for regulatory compliance by both motor carriers as well as CMV drivers (7).
- Highlight the importance of conducting post-crash inspections of serious crashes to identify maintenance related problems (7).
- Support efforts to increase compliance by truck drivers and firms with applicable statutes and regulations (7).

Emphasis Area 3: Technology for Safety and Efficiency

Background

Application of technology is among the key ways to improve truck safety and efficiency. While vehicle-based technologies may have a direct impact on truck performance by assisting the driver, using advanced technologies for enforcement may enhance officers' performance. Technologies such as lane departure warning, blind spot detection systems, and integrated safety systems are increasingly becoming a necessity for truck operation due to their ability to improve safety and increase efficiency. In anticipation of autonomous heavy-duty trucks, enhancement of fleet safety above minimum required levels by purchasing and using truck safety technologies (i.e., electronic braking systems, high-performance tires, convex and side mounted mirror, etc.) and advanced technologies (i.e., collision avoidance warning systems, adaptive cruise control, back-up camera, etc.) is desirable. Currently, Michigan does not have any tax incentives that promote these technologies to be implemented. It is important to continue employing and to consider new truck safety and enforcement technologies.

Model Strategies

Vehicle-Based Technologies

- Advocate for and support a program for teaching drivers how to use the new telematics and technologies (3, 7).
- Emphasize the importance of considering modes for providing incentives for the adoption of advanced in-vehicle technologies (7).
- Promote the development and deployment of truck safety technologies (7).

Enforcement Technologies

- Support efforts to implement and increase the use of Commercial Vehicle Information Exchange Window (CVIEW) (4).

- Underscore the need to explore the feasibility of automating collection of inspection data to facilitate enforcement.
- Support the implementation of systems that use advanced technologies to assist police officers in identifying potential violators (9).

Emphasis Area 4: Seat Belt Use, Fatigue, and Distracted Driving

Background

Driver fatigue and distracted driving are among factors leading to CMV related crashes. Similar to the effects of driving while fatigued, distraction while driving may slow reaction time, decrease situational awareness, and impair judgment as a results of the driver taking his/her eyes and mind off the road. Distracted drivers present challenges for law enforcement. Distraction (particularly use of hand-held electronics) may be a factor in truck-related crashes due to drivers not paying full attention to their surroundings.

Driving under fatigue poses a safety hazard to truck drivers and the general driving public. Unrealistic scheduling may contribute to driving while fatigued as drivers attempt to “catch up” with the schedules. Among other efforts, strategies to hold shippers, carriers, and receivers responsible for unrealistic schedules of freight hauling may be needed to potentially reduce fatigue-related crashes. Exploration of innovative strategies such as “Chain of Responsibility” (CoR) or required compensation for drivers during loading and unloading, may be considered. Research presented by Jones (6) at the Australasian Road Safety Conference suggest that CoR could be one of the factors associated with a reduction in fatigue as the cause of accidents from 20 percent in 2007 to 12.8 percent in 2013. For such innovative strategies, it is important to first determine if the strategy can be implemented by Michigan only or if it requires national efforts to be successful.

Safety belt use is one of the cheapest, easiest, and most important ways to protect CMV drivers when involved in a crash. Although, Michigan law requires the use of seat belts when operating a CMV, some CMV drivers still do not use seat belts. The observation study conducted in Michigan in 2012 indicated that the statewide safety belt use rate for CMV drivers was 84.9 percent.

Model Strategies

- Promote efforts to increase fatigue awareness among CMV drivers, shippers, carriers and all other drivers (7).
- Advocate for the education of motor carriers and CMV drivers on the dangers of distracted driving (7).
- Encourage road agencies to continue incorporating rumble strips into new and existing roadways (7).
- Emphasize the importance of exploring innovative strategies to ensure safe freight hauling by holding shippers, motor carriers, and receivers accountable for unrealistic scheduling (7).
- Conduct research on the effect of requiring compensation for loading, unloading, and wait time on fatigued driving (7).
- Support efforts to enforce rules to control the use of cell phones while driving (7).
- Highlight the importance of efforts focused on programs for seatbelt use.

Emphasis Area 5: Driver Shortage

Background

From 2011 to 2015, Michigan has experienced a decrease of 14.6 percent in the number of CDLs. During the same period, the CMVMT increased by 2.9 percent. While the decrease in the number of CDLs in Michigan may not be a direct and the only factor causing driver shortage, it may be an indicator of potential driver shortage now or in the future if this trend continues. The current shortage of drivers may be mainly associated with the lack of interest in truck driving as a career. The majority of young people may not consider truck driving as a career option, especially since one needs to be at least 21 years old to get a CDL (3). This is a nationwide problem which exacerbates driver shortage in Michigan and other states. Shortage of qualified drivers has the potential to increase the number of unqualified drivers behind the wheels. Strategies that promote truck driving as an alternative career, especially to high school students, may minimize this problem.

Model Strategies

- Facilitate and encourage research on perception and attitude of the society toward the trucking industry (3).
- Promote inclusion of CDL training in community colleges and technical schools (3).
- Encourage and support efforts that introduce the trucking industry as a career choice in high school (3).
- Identify and support efforts aimed at addressing the driver shortage, especially those that are potentially beneficial for Michigan, by reviewing national efforts by the trucking industry (3).

Emphasis Area 6: CMV Driver and General Public Awareness

Background

Most of the crashes involving CMV and passenger vehicles are often initiated by driving errors by light vehicle drivers around heavy trucks. Some drivers of passenger vehicles may not be aware trucks have substantially different performance characteristics (stopping distances, acceleration, and maneuverability). Similarly, truck drivers need to understand the concept of “sharing the road” with other drivers. About 53 percent of CMV drivers surveyed stated that they were not aware of “Share the Road” programs. Also, it is important that the general driving public be aware of the safest practices when driving around CMVs. Furthermore, awareness of resources available to CMV drivers, the public and truck owners is necessary in order to increase their engagement and involvement in CMV-related safety initiatives and programs.

Model Strategies

- Support the incorporation of “Share the Road” messages and information into materials targeting car and other light vehicle drivers through print and electronic media (7).
- Support efforts to increase awareness of the “Share the Road” program in strategic locations such as MDOS branch offices, Michigan Welcome Centers, and highway rest stops (7).
- Increase the level of attention to truck safety issues in public and private driver education programs used across the state as well as in the driver education test used by the MDOS (7).
- Support MCTS’s efforts to enhance small carriers’ awareness of the resources available to them (3).
- Reach out to small carriers and encourage them to provide training to their entry-level drivers (3).

- Support education and outreach to the public and industry on how to safely operate in and around commercial motor vehicles (8).
- Promote MCTS's programs, especially the truck simulator and other programs to increase its utilization (3).
- Promote education on the safety benefits of driver wellness programs (7).
- Enhance the visibility/activities of the MTSC through effective promotions and communications (7).
- Support efforts to encourage truck and other drivers to engage in safer driving by encouraging implementation and enforcement of laws that will counter aggressive driving behaviors.

Emphasis Area 7: Truck Safety Initiatives and Best Practices

Background

Tuck safety initiatives and implementation of best safety practices are critical to the improvement of truck safety in Michigan. Timely, accurate, and accessible data are also a critical component of truck safety management. Data are required to identify truck-related safety problems, establish priorities, design interventions, evaluate countermeasures, and detect emerging problems. Important data on heavy trucks and operators are collected and maintained by different entities (e.g., law enforcement agencies, the judicial system, etc.). Rapid entry and compilation of such data can greatly improve the detection of problems and enable timely interventions. It is important to develop nationally-recognized safety management programs that will enhance knowledge of truck safety initiatives through industry “best safety practices.”

Model Strategies

- Encourage efforts to analyze and correct unsafe roadway infrastructure and operational characteristics through engineering and enforcement interventions (7).
- Facilitate the linkage of CMV data from different administrative sources (for example, increase the use of Commercial Vehicle Information Exchange Window (CVIEW)), as well as make sure common definitions are used so the data may be compared (7).
- Emphasize the timely and accurate reporting of inspection and crash data (7).
- Emphasize periodic analyses of crash data to provide longitudinal information on crashes and compare Michigan with other states (7).
- Encourage the effective utilization of heavy-truck crash data in decision-making (7).

- Participate in efforts to develop cooperative CMV safety programs and partnerships with state departments, e.g., MDOT, OHSP, MDOS, MSP, and other traffic safety partners to improve information sharing and understanding of the collective mission of truck safety (7).
- Participate in discussions regarding modification of speed limits (7).
- Support mobile enforcement and implementation of Special Truck Enforcement Team (STET) operations in high-risk areas to improve compliance (7).

ACRONYMS

AASHTO	American Association of State Highway Transportation Officials
CDL	Commercial Driver's License
CMV	Commercial Motor Vehicle
CSA	Compliance, Safety, and Accountability
CVED	Commercial Vehicle Enforcement Division
CVMT	Commercial Vehicle Miles Traveled
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
GTSAC	Governor's Traffic Safety Advisory Commission
MCTS	Michigan Center for Truck Safety
MDOS	Michigan Department of State
MDOT	Michigan Department of Transportation
MSP	Michigan Department of State Police
MTA	Michigan Trucking Association
MTSC	Michigan Truck Safety Commission
NCHRP	National Cooperative Highway Research Program
NHTSA	National Highway Transportation Safety Administration
OHSP	Office of Highway Safety Planning
OOS	Out-of-Service
STET	Special Traffic Enforcement Team
UMTRI	University of Michigan Transportation Research Institute

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ACKNOWLEDGEMENTS

The Michigan Truck Safety Commission (MTSC) completed the update of this strategic safety plan in May 2017. The MTSC consists of a diverse group of commissioners and at large traffic safety professional members including representatives from:

Michigan Department of State

Michigan Department of State Police

Michigan Office of Highway Safety Planning

Michigan Transportation Commission

Michigan Trucking Association

Michigan Four-Year Colleges or Universities

Michigan Community Colleges

Michigan Organized Labor

Michigan General Public

Michigan Private Motor Carriers

All parts as described within this plan are necessary, but there is flexibility to customize the structure and process according to external and internal factors. It is anticipated that the plan will be updated periodically and otherwise revised.