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Best Practices for Commercial Motor Vehicle (CMV) Crash Reporting

Texas A&M Transportation Institute

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By

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Introduction

The Texas A&M Transportation Institute (TTI) was awarded a project by the Federal Motor Carrier Safety Administration (FMCSA) to identify potential underreporting of commercial motor vehicle (CMV) crashes, as well as practices to improve CMV crash reporting in Texas. This project consisted of a data analysis, focus groups with law enforcement officers and other data stakeholders, and the development of educational materials. The purpose of this document is to outline the best practices identified throughout the project for CMV crash reporting in Texas. The intended audience for this report are law enforcement officers and their agencies.

Background: CMV Crash Data Collection and Reporting

The National Highway Traffic Safety Administration (NHTSA) states the need for quality data for decision-making (*1*):

> High-quality State traffic records data is critical to effective safety programing, operational management, and strategic planning. Every State—in cooperation with its local, regional, and Federal partners—should maintain a traffic records system that supports the data-driven, science-based decision-making necessary to identify problems; develop, deploy, and evaluate countermeasures; and efficiently allocate resources. Functionally, a traffic records system includes the collection, management, and analysis of traffic safety data. It is comprised of six core data systems—crash, driver, vehicle, roadway, citation and adjudication, and injury surveillance—as well as the organizations and people responsible for them.

Accurate and complete CMV crash data information is vital because this information is used for multiple purposes beyond insurance claims, including resource allocation. High quality crash data supports the conduct of robust crash analysis and the identification of factors associated with CMV crashes, as well as locations with a higher occurrence of crashes. This information can be used to identify and implement the most effective countermeasures for preventing crashes, injuries, and fatalities, such as infrastructure improvements, targeted police enforcement, and educational opportunities.

In Texas, CMV crash data are collected through one section of the Texas Peace Officer's Crash Report (CR-3 form). Data fields include information on the CMV criteria met (e.g., weight, hazardous material, passenger capacity), damage, vehicle operator, carrier, vehicle weight (e.g., RGVW, GVWR), hazmat release information, sequence of events, vehicle, and cargo type (see Figure 1). This form is available at: https://www.txdot.gov/government/enforcement/crash-records.html.

Law enforcement officers play the most important role in collecting CMV crash data. It is critical that transportation safety stakeholders communicate to law enforcement officers

the importance of all data fields on the CR-3 and the importance of accurate and complete information.

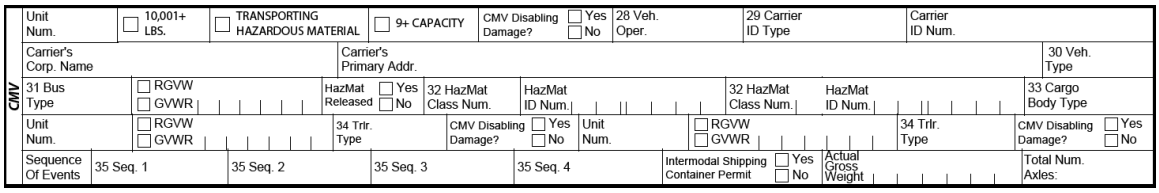

Figure 1. CMV Section from the Texas Peace Officer's Crash Report (*2*)

Identified Best Practices

Literature Review

To our knowledge, there are no others reports that address improving CMV crash reporting. There is limited literature on best practices for improving crash reporting among law enforcement officers. Recommendations include 1) training law enforcement officers on crash data and the importance of capturing accurate data; 2) developing crash data standards for law enforcement agencies; and 3) emphasizing the importance of minimum requirements set forth in the Model Minimum Uniform Crash Criteria (MMUCC) Guideline (*3*,*4*,*5*).

Focus Group

Through six focus groups, several best practices for CMV crash reporting were identified for both law enforcement agencies and officers:

- *Agency Perspective:*
  - From an agency perspective, experience or knowledge was identified as a significant barrier to CMV crash reporting. The best practices to address this barrier are to provide refresher or other training opportunities to discuss the CMV section and required fields. Training could include roll call opportunities and training bulletins. Prior project tasks included developing a communication and training plan and two tip cards. The communication and training plan provides recommendations for communicating the importance of CMV crash reporting and available training opportunities for law enforcement officers. The two available tip cards include information on identifying CMVs and identifying responsible carrier and DOT numbers.

  - Law enforcement agencies should actively promote the accurate and complete reporting of crash data. Promotional activities should include a demonstration of how inaccurate or incomplete reporting negatively affects resource allocation and the appropriate identification of crash risk factors and effective countermeasure identification, implementation, and evaluation.

  - Agencies should use Commercial Vehicle Enforcement (CVE) trained officers when available as a resource to help with completion of the CMV section of the CR-3 form.

- *Law Enforcement Officer Perspective:*
  - Law enforcement officers who participated in the focus groups recommended that other all law enforcement officers use the TxDOT CR-100 Instructions to Police for Reporting Crashes manual, which provides information on required fields on the CR-3 form. This manual is available at: https://www.txdot.gov/government/enforcement/crash-records.html.

  - Law enforcement officers should attempt to have an open dialogue with truck drivers who may be able to assist with the CMV-section fields. Truck drivers know this information, or they know where it is to meet compliance rules. For example, truck drivers can inform officers if the truck is leased and provide their DOT number, their shipping papers, log, and lease agreements, which can provide important information.

Crash Analysis

The crash analysis identified key factors associated with underreporting of CMV crashes that can be addressed by law enforcement agencies and officers. Important key factors for both single-vehicle and multivehicle CMV crash underreporting included:

- Driver with Non-CDL License.
- Roads with Decreased Speed Limits.
- City Streets.
- Younger Drivers.

Agencies can use this information during training opportunities to address reporting of crashes with these factors. In addition, the crash analyses were able to identify locations with higher percentage of underreporting, including roads with lower speed limits and city streets, which can also be addressed through training opportunities. All urban areas in Texas had high levels of underreporting of CMV crashes; however, this could be due to the number of officers completing crash forms. A potential solution would be using CVE officers to provide training on completing the CMV section of the crash form. Rural areas with infrequent CMV crashes also had issues with underreporting of CMV Crashes. This could be due to limited experience completing the CMV crash section. These areas could benefit through training, as well as keeping educational materials available.

Conclusion

While the best practices presented in this report are based on findings of this project, they are in alignment with current literature on improving crash reporting. Key recommendations in the literature are also applicable to CMV reporting including: 1) training law enforcement officers on crash data and the importance of capturing accurate

data; 2) developing crash data standards for law enforcement agencies; and 3) emphasizing the importance of minimum requirements set forth in the MMUCC Guideline (*3,4,5*).

In summary, law enforcement agencies and officers play an important role in improving the quality of CMV crash data. Other safety stakeholders also can help promote improved data collection by demonstrating how accurate crash data support more effective resource allocation and how data-driven strategies save lives. Examples of success stories need to be effectively communicated to law enforcement agencies and officers to illustrate how they can contribute to transportation safety through comprehensive and accurate data collection.

References

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