

Crash Data Improvement Program

Background

The FHWA, NHTSA and FMCSA receive many reports from states documenting their progress on addressing and improving a variety of safety issues. In reviewing these documents it is apparent that the quality of the crash data varies from state to state. Some states have established performance measures to assess the quality of their crash data. Their use of these measures allows them to identify deficiencies within their crash database and to better direct their resources to correct the deficiencies and thereby improve the data used to identify problems, evaluate countermeasures and/or establish safety policies.

CDIP Purpose

The CDIP is intended to provide states with a means to measure the quality of the information within their crash database. It is intended to provide the states with metrics that can be used to establish measures of where their crash data stands in terms of its timeliness, the accuracy and completeness of the data, the consistency of all reporting agencies reporting the information in the same way, the ability to integrate crash data with other safety databases and how the state makes the crash data accessible to users. Additionally, the CDIP was established to help familiarize the collectors, processors, maintainers and users with the concepts of data quality and how quality data helps to improve safety decisions.

CDIP Considerations

Crash Data Collection

The law enforcement agencies within a state are the basic source of information on crashes occurring within a state. All states have requirements for documenting fatal, injury or property damage crashes (with damage above a certain dollar threshold). Officers are dispatched to crash scenes to identify and document information about the human, vehicular and roadway elements that were involved in the crash. The amount of training these officers have received and their level of experience affect their ability to accurately and completely document the circumstances of the crash.

Crash Data Reporting

The information they record is documented into a standard report that has been established by the state. The law enforcement officers can document this information into electronic collection forms or, more commonly, report it on standardized paper reporting forms. Electronic collection forms typically have business rules and edits that are intended to minimize invalid or incomplete information being entered into the report. Based on multiple methods of reporting, states can experience different levels of timeliness, accuracy and completeness of crash information.

Crash Data Processing

When the crash reports are received by the state agency responsible for processing the report into the state's central crash database, those agencies typically do post-receipt processing of the crash reports. Depending on the steps in the process, additional opportunities for error can be introduced to the crash database.

The CDIP is intended to provide a state with measures to assess the deficiencies through each step of the crash data production process. It provides greater information about the type of deficiencies that are occurring and how they may best be addressed by corrective measures.

Components of the CDIP

CDIP Guide

The CDIP developers conducted an assessment of states recognized for having developed and implemented good procedures and processes for assessing the quality of the information in their crash database. These processes and examples of their performance measure output have been compiled into a CDIP Guide. The CDIP Guide is intended to address the following issues:

- What is data quality and why is it important
- What are the quality characteristics (definitions)
- What are quality metrics
- How they are calculated
- What are they measuring
- What is the sensitivity of various metrics
- How to establish quality characteristic benchmarks
- Examples of management reports that assess quality measures

CDIP Workshop

With one of the main purposes of the CDIP being to create greater awareness of importance of data quality, a one-day CDIP Workshop has been developed and is offered as part of the overall CDIP. Based on the information in the CDIP Guide, the Workshop is intended to educate and to facilitate understanding on the importance of data quality and how to effect improvements to their states crash database. The Workshop is intended for a target audience of:

- State crash database administrators and managers
- State Traffic Records Coordinating Committee members
- State Highway Safety Office
- State DOT safety personnel
- Local traffic safety personnel
- Federal personnel (NHTSA, FMCSA and FHWA)
- MPO's
- City/county engineers
- Local law enforcement personnel
- Other state and local traffic safety professionals.

CDIP Technical Assistance

The CDIP also provides direct technical assistance to the state's crash database administrator/manager and their staff. This portion of the program reviews current state procedures and practices regarding assessing the quality of their crash data. A CDIP Technical Assistance Team (TAT), comprised of individuals knowledgeable about performance measures for crash databases, will meet with the crash database administrator and their staff to review the state's practices and discuss potential improvements. Finally, a recommendations report will be issued to the state based on the TAT's findings of state quality assessment practices.

CDIP Follow-up

After a state has participated in the CDIP, there will be follow-up communication regarding the program and the state's experiences. The basic query of this follow-up will ascertain:

- Has the state implemented any of the recommendations that were provided by the TAT? If 'yes', which recommendation have been implemented.
- If none of the recommendations have been implemented, does the state have plans to implement the recommendations and when;
- Does the state have questions or uncertainty about how to implement any of the recommendations.
- Does the state need further clarification or assistance in implementing any of the recommendations.

The CDIP TAT will continue to provide consultation to the state regarding the recommendations and how to implement them.

CDIP Financial Assistance

States that participate in a CDIP are eligible to receive an assistance grant from the FHWA. The FHWA will award a state up to \$50,000 to assist them to develop and/or implement one or more of the recommendations generated in the CDIP report. These funds do require a state "in-kind" match of 20%. States that participate in the CDIP will receive a notification thorough their FHWA Division Office about the availability of the funds, the application procedure and the allowable uses of the funds.

Further Information

If you have further questions or comments about the CDIP, please contact:

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