The Federal Highway Administration (FHWA) Office of Safety established the Roadway Safety Data Program (RSDP) to advance State and local safety data systems and expand safety data analysis and evaluation capabilities. The RSDP focuses on roadway inventory and traffic volume data and its integration with crash data and other safety data system components. The program provides guidance, information resources, technical assistance, and training course development on roadway safety data collection, analysis, and management. For more information, go to http://safety.fhwa.dot.gov/rsdp.

TECHNICAL ASSISTANCE (http://safety.fhwa.dot.gov/rsdp/technical.aspx)

**Roadway Data Improvement Program (RDIP):** A technical assistance program to help State DOTs improve the quality of their roadway data to better support safety and other improvement initiatives. RDIP focuses on assessing and making recommendations for improvements regarding the processes and practices used by the agency for collecting, analyzing, managing, and integrating their roadway data.

**Roadway Data Extraction Technical Assistance Program (RDETAP):** A technical assistance program to help State DOTs and local agencies expand, improve, and integrate their roadway safety inventory data collection consistent with the Model Inventory of Roadway Elements.

**Safety Data and Analysis Technical Assistance Program:** This program is open to State and local government agencies to provide customizable technical assistance based on the data and/or analytical needs of the requesting agency.

For more information on technical assistance, check out the above link or contact any RSDP Team member.

AVAILABLE RESOURCES (http://safety.fhwa.dot.gov/rsdp)

**Data Collection**

**Model Inventory of Roadway Elements (MIRE) Version 1.0:** MIRE is a listing of roadway features and traffic volume data elements to help agencies move toward data-driven decision-making in safety management. The guidebook specifies definitions, attributes, and tool requirements for each element. These elements are either currently used by State and local Departments of Transportation (DOTs) in their safety analyses or needed in new safety-analysis tools.
MIRE Data Collection Guidebook: Provides data managers and collectors with information regarding techniques for collecting MIRE data elements that potentially will allow them to collect the elements more efficiently.

MIRE Management Information System Lead Agency Data Collection Report: Presents the findings from pilot studies in two States on different methods of data extraction to expand their roadway inventory data collection to include MIRE intersection data elements.

MIRE Element Collection Mechanisms and Gap Analysis: Provides data managers and data collectors with potential techniques for advancing future data collection of roadway and traffic inventory data.

The Exploration of the Application of Collective Information to Transportation Data for Safety White Paper: Examines uses of collective information (i.e., process of assembling or gathering information through a large, disperse and potentially uncontrolled group of individuals) and potential next steps for this process to support roadway data collection.

Data Management

State Traffic Records Coordinating Committee (TRCC) Noteworthy Practices: Provides descriptions of successful TRCCs; examples of noteworthy practices drawn from six case study States and others; as well as recommendations State TRCC Coordinators and Chairs, TRCC participants, and executive leaders can adopt and adapt to their own situation.

Development of a Structure for a MIRE Management Information System (MIS): Summarizes a conceptual structure of a MIRE MIS, a prototype based on the conceptual structure, testing of the prototype using data from one Lead Agency Program State, and the lessons learned and implications for further development and implementation.


Roadway Data Improvement Program - Supplemental Information Resource: Provides an overview of data collection practices, transportation planning and coordination, data management, and using roadway data for safety.

Benefit-Cost Analysis of Investing in Data Systems and Processes for Data-Driven Safety Programs - Decision-Making Guidebook: Describes methodologies State and local highway agencies could implement to make the case for investing in data collection, data systems, and processes.

MIRE FDE Cost Benefit Estimation: Estimates the potential cost to States in developing a statewide Linear Referencing System and collecting the Minimum Inventory of Roadway Elements, Fundamental Data Elements, on all public roadways.

State Safety Data Capability Assessment Final Report: Summarizes the findings of a capabilities assessment for each State plus the District of Columbia and Puerto Rico in terms of the collection, management, and use of roadway safety data.

Perspectives for the Development of the Roadway Safety Data Program: Summarizes States perspectives that participated in the Roadway Safety Data Capabilities Assessment and Peer Exchanges on establishing the FHWA Roadway Safety Data Program. It offers input on roles FHWA could play in improving state and local safety data systems and safety analysis capabilities.

Crash Data Improvement Program Final Report: Summarizes common findings and recommendations from FHWA CDIP technical assistance sessions in 10 States from 2010-2013.

Priorities in Roadway Safety Data Guide: This Guide was developed to assist users to identify issues related to what data elements are needed for conducting different type of analyses, conducting gap analyses, establishing data priorities and how to develop data collection plans. The Guide provides examples and relevant resources to assist user’s.
Data Analysis

The Calibrator: An SPF Calibration and Assessment Tool: The audience for The Calibrator includes road safety practitioners responsible for developing new SPFs and calibrating existing SPFs to data from their jurisdiction. The tool helps to automate the calibration process, generate cumulative residual (CURE) plots, and provide information to users that will allow them to assess the suitability of, or to compare between, alternate SPFs.

The Reliability of Safety Management Methods: This series includes five information guides that identify opportunities to employ more reliable methods to support decisions throughout the roadway safety management process. Four of the guides focus on specific components of the roadway safety management process: network screening, diagnosis, countermeasure selection, and safety effectiveness evaluation. The fifth guide focuses on the systemic approach to safety management, which describes a complimentary approach to the methods described in the network screening, diagnosis, and countermeasure selection guides. The purpose of the Reliability of Safety Management Methods series is to demonstrate the value of more reliable methods in these activities, and demonstrate limitations of traditional (less reliable) methods.

Highway Safety Manual (HSM) Implementation Resources: Resources include outreach materials, a Managers Guide on how to implement the HSM, and a Guide on integrating the HSM into the project development process. There are also HSM-related training courses and a series of HSM-related case studies.

SPF Guides:

   Decision Guide: Provides information, including the factors considered when deciding whether to calibrate the SPFs from the HSM (AASHTO, 2010) or to develop jurisdiction-specific SPFs

   Development Guide: Provides guidance on developing jurisdiction-specific SPFs based on the HSM methodology

   Calibration Guide: Supports procedures for the development of calibration factors for HSM Part C SPFs

Scale and Scope of Safety Assessment Methods in the Project development Process: informational guide that assists State and local agencies in identifying and applying suitable methods for quantitatively assessing the safety performance impacts of project development decisions such as comparing various design alternatives.

State Policies and Procedures on Use of the HSM: an informational report for States developing policies and procedures on use of the HSM in transportation planning and programming, engineering and design, operations and maintenance, and roadway safety management.

Interactive Highway Safety Design Model (IHSDM): A suite of software analysis tools used to evaluate the safety and operational effects of geometric design decisions on highways, including Highway Safety Manual predictive methods.

CMF Clearinghouse: Houses a Web-based database of CMFs along with supporting documentation to help transportation professionals identify the most appropriate countermeasure for their safety needs. http://www.cmfclearinghouse.org/

CMFs in Practice Case Studies: Five separate guides that demonstrate practical application of CMFs in roadway safety management processes, road safety audits, design decisions and exceptions, development and analysis of alternatives, and value engineering.

Systemic Safety Project Selection Tool: The systemic approach to safety involves widely implemented improvements based on high-risk roadway features correlated with specific severe crash types. It complements traditional site analysis and helps agencies broaden their traffic safety efforts to consider risk as well as crash history when identifying where to make low cost safety improvement locations.
**2nd State Safety Data Capabilities Assessment:** FHWA is planning the 2nd safety data capability assessment for 2017-2018 to document the progress states have made since the 1st capabilities assessment completed in 2011-2012. The 2nd Assessment will also assist FHWA to be responsive to the needs of the States, the District of Columbia, and Puerto Rico to improve their safety data and to expand their capabilities for analysis and evaluation.

**EDC Data Driven Safety Analysis Initiative:** Data-Driven Safety Analysis in all transportation investment decisions was selected as an Every Day Counts Round 3 and 4 Innovation. It focuses on broadening implementation of predictive and systemic approaches into safety management and project development decision-making, with the ultimate goal of saving lives. Interested states and local agencies will have access to technical assistance and training resources to further their use of safety data to make better investment decisions.

**Collection and Maintenance of Safety Data on Non-Federal Aid Roads:** The objective of this task order is to develop an informational guide on the process for collection of safety data on non-federal aid roads. The guide will be based on the integration of MIRE and HPMS reporting standards and processes. The guide will be designed for use by local agencies for recording and maintenance of safety data for integration with statewide data sets.

**Data Collection and AADT Estimation for Non-Federal Aid System Roads:** In August 2016, the Federal Highway Administration’s Office of Safety initiated a project to develop an Informational Guide on data collection and computation/estimation of AADT for NFAS roads. In addition to data collection and AADT estimation methods, the Guide will include research findings, case studies, information gathered from interviews, and relevant noteworthy practices.

**Safety Data Governance and Management:** This project provides technical assistance to State DOTs in the application of the “Informational Guide for Safety Data Governance and Management”. Participating agencies gain knowledge in the application of the DBP process and are provided a customized roadmap in the implementation of the seven step safety data governance and management process.

**Integration of State and Local Safety Data:** This project provides technical assistance to State and local agencies in the application of the “Informational Guide for State, Tribal, and Local Safety Data Integration”. Participating agencies gain knowledge in the application of the DBP process and are provided a customized roadmap in the implementation of the nine step safety data integration (crash, roadway, traffic & between state and local agencies) process.

**Business Case for Investment to Improve State Safety Data and Analysis Systems:** Developing resources to assist State and local highway agencies to estimate the value of and articulate the business case for investments to improve State safety data systems and analysis capabilities.

**MIRE Reassessment:** A reassessment of the MIRE Version 1.0 data elements is currently underway. Through this process MIRE is expected to be revised to reflect current needs of data users and to achieve greater consistency with other roadway databases. The final product will be MIRE Version 2.0.

**Highway Safety Manual Implementation Pooled-Fund Study:** FHWA is managing this study for participating State DOTs to develop resources supporting implementation of the Highway Safety Manual.

**Safety Data and Analysis Fundamentals Training Assessment:** A training needs analysis—conducted in collaboration with Federal, State, and local stakeholders—assessed specific learning needs of State and local agencies regarding safety data and analysis fundamentals. The results support the development of new web-based safety data and analysis fundamentals training courses scheduled for release in 2017.
Life-Cycle Benefit Cost Analysis Guide and Tool: The objective of this project is to develop a guide and software tool for use in the evaluation of site-specific projects and systemic safety programs. Project was awarded to VHB/Jack Faucett and Associates. Literature review was distributed to Pooled Fund States and comments were due Nov 18.

Safety Performance for Intersection Control Evaluation: The objective of this project is to develop a Microsoft Excel-based tool for efficiently and consistently evaluating the safety performance of a wide range of different intersection types for a given location.

Roadway Safety Data and Analysis Toolbox: The RSDP Toolbox is designed for anyone in search of a safety data or analysis tool to support data-driven decision-making. We’ve distilled hundreds of guides, databases, and software tools into a one-stop shop specifically designed to help you leverage your peers’ knowledge to improve your safety data and analysis efforts, make better investment decisions, and save more lives.

http://safety.fhwa.dot.gov/rsdp/

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