

Safety

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Project Title: Highway Safety Manual Implementation

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Highway Safety Manual Implementation

Provide guidance on whether an agency should calibrate the Safety Performance Functions (SPFs) from the Highway Safety Manual (HSM) or develop jurisdiction-specific SPFs.

WHAT IS THE NEED?

The HSM 1st Edition, was published by American Association of State Highway and Transportation Officials (AASHTO) in 2010. The HSM provides the best factual information and tools in a useful form to facilitate roadway planning, design, operations, and maintenance decisions based on precise consideration of their safety consequences. The primary focus of the HSM is the introduction and development of analytical tools for predicting the impact of transportation project and program decisions on road safety. The AASHTO Standing Committee on Highway Traffic Safety has established a goal to institutionalize the AASHTO HSM and its associated analytical tools to make data-driven decisions advance the science of safety and to ultimately reduce fatalities and serious injuries.

WHAT ARE WE DOING?

This study would conduct research tasks and develop products that would enable States to accelerate their implementation of the HSM. The specific tasks and products would be identified and prioritized by a Technical Working Group consisting of one representative each from participating agencies. Specific tasks may include: (1) developing a calibration manual to accompany the HSM that provides practical advice and examples on how best to adapt HSM calibration procedures to meet the needs of a particular agency, (2) developing technical guidance for agencies on developing safety performance functions, and (3) developing guidance for agencies on assembling and managing the data needed for safety analyses.

The study would also facilitate Technical Working Group representatives' participation in peer exchanges and other forums through which agencies can exchange information, best practices, lessons learned, and remaining challenges in implementing the HSM appropriately into agencies'

system planning, project planning, and preliminary engineering, design and construction, and operations and maintenance procedures and processes. These exchanges would feed an annual process through which the Technical Working Group identifies and prioritizes future tasks to be conducted under the study.

WHAT IS OUR GOAL?

The study's objectives are (1) to advance ongoing efforts by lead states to implement the HSM and (2) to expand implementation to all states. This study would be coordinated with other ongoing and planned implementation activities sponsored by AASHTO, Federal Highway Administration (FHWA), and Traffic Research Board, including NCHRP Project 17-50 "Lead States Initiative for Implementing the HSM." It will also be coordinated with projects that develop content for future editions of the HSM, including NCHRP Project 17-45 "Enhanced Safety Prediction Methodology and Analysis Tool for Freeways and Interchanges," NCHRP Project 17-54 "Consideration of Roadside Features in the HSM," and Transportation Pooled-Fund Study TPF-5(099) "Evaluation of Low-Cost Safety Improvements."

WHAT IS THE BENEFIT?

The HSM provides methods to integrate quantitative estimates of crash frequency and severity into planning, project alternatives analysis, and program development and evaluation, allowing safety to become a meaningful project performance measure. HSM will support states' progress toward federal, state, and local safety goals to reduce fatalities and serious injuries. As public agencies work toward their safety goals, the quantitative methods in the HSM can be used to evaluate which programs and project improvements are achieving desired results; therefore, agencies can reallocate funds toward those with the greatest benefit.

WHAT IS THE PROGRESS TO DATE?

FHWA hosted the quarterly meeting of the TPF on February 17, 2026. Notable updates discussed include:

- Wisconsin presented on the status of their calibration of HSM Part C SPFs, while Kansas presented on their high-risk rural intersection program.
- The contractor provided an update on deliverables from the Applications of DDSA project.
- Washington noted they are nearly complete with updating the HSM Part C Spreadsheets to include the HSM2 models.
- Northeastern Megalopolis SPFs will be completed this summer.
- The contractor provided an update on current research topics, while reiterating the request for additional focus group members.
- The Contractor met with several focus group members to refine the scope of work for several research topics.

Research topic activities by the TPF and the contractor are as follows:

- 2023-1 – HSM2 Part C Reference Guide – developed and finalized work plan and issued notice to proceed. Submitted a request to AASHTO through the focus group for use of draft HSM2.
- 2023-4 – Scale and Scope of Safety Assessments Quick Reference Guide –developed and finalized work plan and issued notice to proceed. Developed draft outline for the guide.
- 2024-9 – Test HSM2 Part C Spreadsheet Tools – developed and finalized work plan and issued notice to proceed. Informed WSDOT the team is ready to test the tools.
- 2024-11 – HSM2 Leadership Training – developed and finalized work plan and issued notice to proceed. Met with focus group and other



TPF members to determine key themes and messages for the presentation. Developed draft outline of presentation.

- 2026-1 – CMF Shortlist – developed and finalized work plan and issued notice to proceed. Reviewed several State preferred CMF lists. Solicited and summarized web traffic from the CMF Clearinghouse.
- 2026-2 – HSM2 Implementation Discussion Series – developed and finalized work plan and issued notice to proceed. Met with focus group to determine topics for the meetings. Solicited availability for the first meeting.
- The contractor developed draft work plans for the following research topics and is working with the focus groups to finalize those work plans and receive notice to proceed:
 - 2021-1 – Develop HSM Data Dictionary.
 - 2023-2 – Incorporate the Safe System Approach in Data Driven Safety Analysis.
 - 2024-2 – Improving Calibration.
 - 2024-5 – Exploring EMS Applications in the HSM2.

Applications of DDSA

- Continued revisions of Communications Guide based on FHWA feedback.
- Provided updates to PFS members on status of Task 2.1 memorandum and Task 3 report. Obtained feedback from PFS members on thoughts for having a State publish each of the documents, rather than FHWA.
- Scheduled meetings to discuss the Task 2.1 memo and Task 3 report with Working
- Group members to decide on publication and process for doing so.