

HSM Implementation Pooled Fund Study
TPF-5(255)
<https://www.pooledfund.org/Details/Study/484>

Quarterly Report
October – December 2019

Participating Agencies: CA, CT, ID, IL, KS, LA, MI, MS, MO, NV, NJ, NC, OH, OK, OR, PA, TX, UT, WA, WV, and WI

Total Funds Committed:	\$1,555,000
Total Funds Transferred to FHWA:	\$1,457,093
Total Funds Obligated:	\$ 888,446
Transferred Unobligated Funds:	\$ 568,647

Activities Accomplished During Reporting Period (October 1 – December 31, 2019):

- During this reporting period, a meeting was held with the TPF-5(255) State Representatives on Oct 15. The purpose of the meeting was for member states to vote on the seven project proposals that had been disseminated on September 15. Three project proposals were selected and are listed below. Descriptions of these projects are attached to this report.
 - HSM Case Studies
 - Development of Data Dictionaries
 - Development of a Safety Countermeasure Service Life Guide
- Completed projects:
 - “Safety Analysis Needs Assessment for PBPD and TSMO” project:
 - Final Report and two practical approaches guides were completed on November 30. These are anticipated to posted to FHWA’s website by March 2020.
- Updates on ongoing projects:
 - No ongoing projects

Activities Planned for Next Quarter (January 1 – March 31, 2020):

- Begin development of Statements of Work for the three project proposals

Descriptions of Selected Projects

Highway Safety Manual Implementation Pooled Fund

Selected October 15, 2019

1. HSM Case Studies – Derek Troyer (OH DOT) and Jerry Roche (FHWA)
 - This effort would share information on the challenges faced by users attempting to implement the HSM to ascertain project-level safety performance and their resolutions (i.e., the decisions made to overcome the challenges. The case studies would serve as a source of “lessons learned” and best practices for situations where we do not have the science (HSM methods/models) and/or the available data to apply the HSM methods in a straight-forward manner. Case studies would include the various HSM-related tools (HSM spreadsheets, ISATe, IHSDM, etc.)

4. Development of Data Dictionaries – Ida van Schalkwyk (WA DOT)
 - Development of data dictionaries with definitions and crosswalks to MIRE-FDE and MMUCC for the HSM2. Data dictionaries describe each data element in a way that makes it clear to the user about what values represent. It usually provides the definition (detailed enough to replicate), data type, units of measurement, etc. For example, in the two-lane rural highway predictive method the number of driveways is an input. No definition is provided as to what it represents or how it should be measured. In the freeway chapter, the input includes median width: folks need to know whether it includes inside shoulders or not. Data definitions vary across the HSM Predictive Method chapters. AADT input values for say, a signalized intersection in the urban arterial intersection chapter: how do those values get calculated? With the MMUCC and MIRE-FDE requirements in MAP-21, crosswalks between data elements required for the HSM Predictive Methods are essential:
 - o Make the connection between what is federally required and DOT business use of the HSM
 - o Helps data stewards understand how the crash, roadway, and volume data they manage influence the business side of DOTs, and supports collaboration on what is needed, how it can be collected, managed and provided to analysts
 - o Assist DOTs I identify how to plan for HSM2 implementation wrt data collection needs, priorities, and reasonable assumptions about data they already have
 - Note: FHWA has an effort going on with NHTSA currently to map the MIRE FDE data elements into NHTSA’s Traffic Records Improvement Program Reporting System (TRIPRS).

7. Development of a Safety Countermeasure Service Life Guide – Jason Hershock (PA DOT)
 - Update/Develop a short guide on countermeasure service life and default values based synthesis of current state values. This would serve as a companion to the crash costs and Safety BCA guides, with the potential to be referenced or incorporated into the HSM 2nd Edition. Current information is available here:

http://www.cmfclearinghouse.org/resources_servlifecrashcostguide.cfm. VA and NC have information to refer to. It would be nice to have an updated FHWA or AASHTO reference that could be modified by the states as necessary. It just looks like every state sort of does their own thing and somethings match up here and there. It could just be a supplement for the cost per crash study that was completed in 2018 by the PFS. Having a new service life guide book would also make it easier to implement with the district offices. I could refer to one consistent guide produced at the national level.

- Note: Two other States expressed support for a project to update the service life document to FHWA at the LCPF TAC meeting.