**TPF-5(255) HSM Implementation Pooled-Fund Study**

**SPF Development and Calibration Small Group**

**April 30, 2014**

**Summary of Discussion**

**Attendees**

Kevin Haas, Oregon DOT

Howard Lubliner, Kansas DOT

John Milton, Washington State DOT

Brian Porter, Wisconsin DOT

April Renard, Louisiana DOTD

Ida van Schalkwyk, Washington State DOT

Chris Speece, Pennsylvania DOT

Derek Troyer, Ohio DOT

Matt Warren, Oklahoma DOT

Clayton Chen, FHWA

Dave Engstrom, FHWA

Ray Krammes, FHWA

Esther Strawder, FHWA

The **objective** of the meeting was to discuss alternative methods/forums for sharing information on States’ SPF development and calibration efforts, including

* What information/support is currently available?
* What information/support would you like?
* What are alternative methods/forums for sharing information?

To provide context, Pooled-Fund State representatives prioritized future efforts as follows:

1. Peer exchanges
2. Guide on the scale and scope of HSM applications
3. Survey of HSM implementation
4. Guide on how to evaluate SPF performance
5. Resource gap assessment to identify needs
6. **SPF (development and) calibration**

SPF development and calibration ranked 6th and, therefore, was not targeted for funding. However, Ray has been exploring low- or no-cost ways of exchanging information on States efforts and results in this area.

By way of background, before moving on to the primary questions, the following summarizes information currently available on SPF development and calibration:

* Safety Performance Function Decision Guide: SPF Calibration versus SPF Development [TPF-5(255)] <http://safety.fhwa.dot.gov/rsdp/downloads/spf_decision_guide_final.pdf>
* Safety Performance Function Development Guide: Developing Jurisdiction-Specific SPFs [TPF-5(255)] <http://safety.fhwa.dot.gov/rsdp/downloads/spf_development_guide_final.pdf>
* Highway Safety Manual, Volume 2, Appendix A.1 Calibration of the Part C Models
* User’s Guide to Develop Highway Safety Manual Safety Performance Function Calibration Factors [NCHRP]
	+ [http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-07(332)\_FinalGuide.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-07%28332%29_FinalGuide.pdf)
	+ Spreadsheets <http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=3287>

In addition, technical support is available through the FHWA Roadway Safety Professional Capacity Building Program, “Peer-to-Peer” Technical Assistance (<http://rspcb.safety.fhwa.dot.gov/technical.aspx>) under the topic: Data and Analysis Tools.

A number of States have completed or ongoing/planned SPF calibration and/or development efforts:

* Completed: AL, FL, IL, KS, MD, NC, OK, OH, OR, UT, VA, WA
* Ongoing Planned: AR, LA, MI, MO, OH, PA, WI

The following summarizes Pooled-Fund Study representatives input on the 3 questions:

**What information/support would you like?**

* Case studies/narrative on why chose to develop rather than calibrate.
* Whether or not the State considered/evaluated the need for/developed/calibrated Regional SPFs?
* How prioritize which did first? How target certain areas (to improve predictive models)?
* How other States handling overdispersion? Strictly HSM model (issues)?
* How are States sustaining/maintaining SPFs? Mechanisms to update … DOT staff? Support contract?
* How SPF development morphed into policy across agency? Planning? Access management, design standards? [for example, OK used for developing systemic improvement programs; WA sustainable safety (planning to operations); OR access management]
* Outcomes of comparisons between own SPFs versus calibrated SPFs?
* Methods for validating developed SPFs? (WA does)

**What are alternative methods/forums for sharing SPF information?**

* Summer FHWA Intern (Cost = $0)
	+ Review, compile (and summarize?) posted literature
* Post links (and summary?) to:
	+ TPF-5(255) web site (Cost = $0)
	+ AASHTO [www.highwaysafetymanual.org](http://www.highwaysafetymanual.org/) (Cost = ?)
	+ FHWA <http://safety.fhwa.dot.gov/rsdp/hsm> (Cost = ?)
* If we want more/better information, contract for it (Cost = $25-50K? From TPF 5-(255))
* Peer exchanges (mini or virtual peer exchange, NCHRP 17-50 lead states peer exchange)
* Examples of Statements of Work, Requests for Proposals, Level of Effort estimates, Contracts for SPF development/calibration work
* NSEL list serv
* TRB Highway Safety Performance Committee post mid-year meeting session?
* AASHTO Safety Management Subcommittee meeting