

TRB Safety Performance and Analysis Committee
(ACS20)

User Liaison Subcommittee

Meeting

October 5, 2021

11 am - 1 pm EST

Agenda

- **Welcome and Meeting Objectives (5 min)**
- **ACS20 Committee Co-Chairs Update (Kim Eccles/Karen Dixon) (5 min)**
- **TRB Annual Meeting – ULSC Meeting (Mike Dimaiuta) (5 min)**
- **FHWA Update (Jerry Roche) (10 min)**
- **NCHRP 17-71A - Highway Safety Manual 2nd Edition (Stephen Read/Bonnie Polin) (5 min)**

Agenda

Working Groups - Updates and Discussions on On-going/Paused ULSC Initiatives (50 min)

- Permanent Working Groups:
 - Policy and Legal Aspects (*Priscilla Tobias*)
 - International Safety Research (*Jennifer Ogle*)
- Temporary Working Groups:
 - TRB 2022 Workshop (*Kim Kolody*)
 - HSM Part C Tools (*Bonnie Polin/Mike Dimaiuta*)
 - Practical Application of the HSM (*Tim Barnett*)
 - Road Safety Training for Local Agencies (*Cong Chen/ Tim Colling*)
 - HSM User Discussion Forum (*Daniel Carter/Tariq Shihadah*)
- Paused Temporary Working Groups:
 - HSM Website (*Stephen Read*)
 - HSM FAQs (*Jake Farnsworth*)

Agenda

- **Future New Initiatives (10 min)**
 - HSM Glossary of Terms/Style Guide (Derek Troyer)
 - HSM Part C Informational Guide (Khalid Jamil)
- **Research and Synthesis Topics Update (10 min)**
- **Other Topics (20 min)**

ACS20 Committee Co-Chairs Update

TRB 2022 Annual Meeting

- Date/time/duration/location of ULSC meeting TBD
- Agenda likely to include:
 - Update on ULSC activities (Working Groups)
 - Updates from FHWA, AASHTO, etc.
 - Research topics
 - Ideas for new initiatives
- Suggestions for other topics are always welcome!

FHWA Update

Jerry Roche, PE
Office of Safety
jerry.roche@dot.gov

CMF Clearinghouse Rating Criteria Updated

The CMF Clearinghouse transitioned to the CMF rating criteria developed as part of the NCHRP 17-72 project for the 2nd edition of the Highway Safety Manual on February 15, 2021.

Converting NCHRP 17-72 Ratings to Star Rating

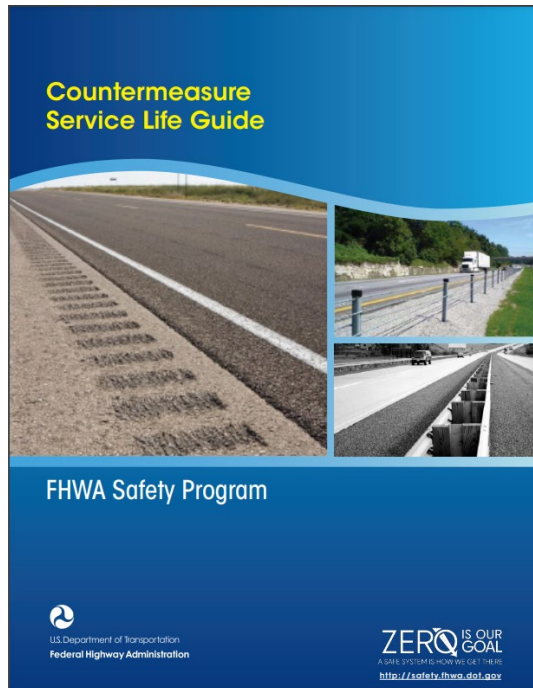
NCHRP 17-72 Rating Score	Star Rating in CMF Clearinghouse
135-150	5 star
110-134	4 star
75-109	3 star
35-74	2 star
0-34	1 star

Changes to Current CMF Star Ratings

NCHRP 17-72 Rating Score	5 Star	4 Star	3 Star	2 Star	1 Star
1 Star (0-34)	3	21	116	341	215
2 Star (34-74)	1	89	639	666	59
3 Star (75-109)	67	485	1903	264	25
4 Star (110-134)	91	954	988	11	4
5 Star (135-150)	137	210	56	0	0

<http://www.cmfclearinghouse.org/>

Countermeasure Service Life Guide



Source: FHWA

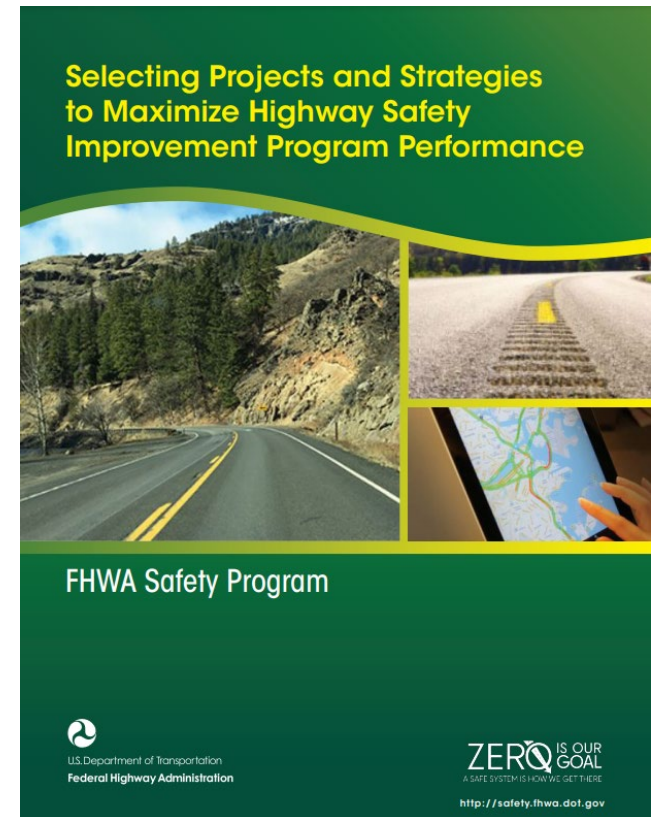
Funded by the HSM Implementation Pooled Fund, TPF-5(255)

- Establishes typical values for the number of years that a countermeasure will have a noticeable effect on crashes
- Provides background information on factors that can impact countermeasure service life and analytical considerations when conducting BCA
- Provides examples using service life as part of a BCA

https://safety.fhwa.dot.gov/hsip/docs/FHWA-SA-21-021_Countermeasure_Serv_Life_Guide.pdf

Selecting Projects and Strategies to Maximize HSIP Performance

- Outlines opportunities throughout the safety management process to maximize lives saved and injuries prevented
- Proposes two new methods: BCA (KA) and Countermeasure Score
- Case Studies on new methods included

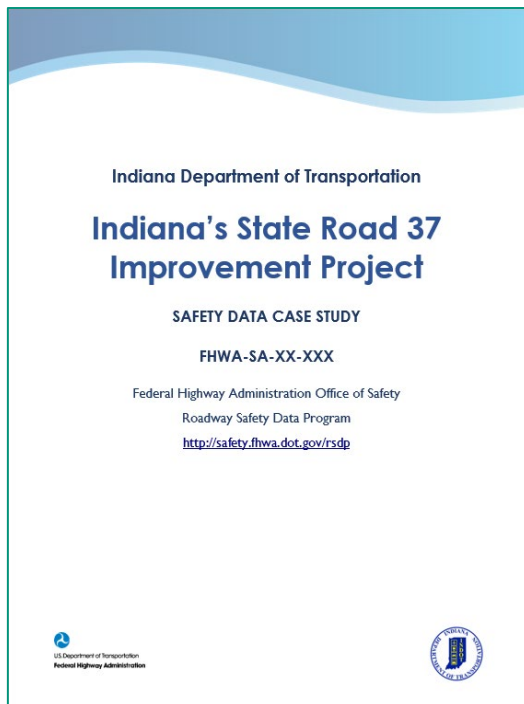


Source: FHWA

https://safety.fhwa.dot.gov/hsip/docs/FHWA-SA-20-001_Maximizing_HSI_Performance_508.pdf

Data and Analysis Case Studies

- 35 Current Case Studies
- 18 currently under development
- Template for new case studies provided by User Liaison Subcommittee ACS20(2)
- Various applications, methods, tools, and facility types
- HSM Implementation Pooled Fund Members ranked and prioritized potential case studies



Source: FHWA

https://safety.fhwa.dot.gov/rsdp/safety_casesudies.aspx#hsm

EDC Safety Summit Series

September 8, 2021, 10:00 AM - 2:00 PM (Eastern)

Data-Driven Safety Analysis (DDSA)

Time	Event	Details
10:00 - 10:10	Opening Remarks	Tom Everett, Executive Director Federal Highway Administration
10:10 - 10:30	Overview of Data-Driven Safety Analysis (DDSA)	<ul style="list-style-type: none"> Turning Data into Information: Where we've been and where we're headed <ul style="list-style-type: none"> Jerry Roche, DDSA Program Manager, FHWA Office of Safety
10:30 - 12:30	Incorporating Equity into Data-Driven Safety Analysis	<ul style="list-style-type: none"> Incorporating Equity Data into Crash and Risk Based Approaches to Safety <ul style="list-style-type: none"> Kirsten Johnson, Highway Safety GIS Specialist, Massachusetts DOT Jennifer Inzana, Highway Safety Data Engineer, Massachusetts DOT Peer Networking Break SPACE – the New Frontier: Suitability of Pedestrian & Cyclist Environment <ul style="list-style-type: none"> Sonja Piper, Bicycle and Pedestrian Safety Engineer, Minnesota DOT Eric DeVoe, Senior Researcher and Data Wrangler, Minnesota DOT Incorporating Equity into Project Decision Making <ul style="list-style-type: none"> Kevin Murphy, Manager – Office of Safe Streets, Delaware Valley Regional Planning Commission
12:30 - 12:45	BREAK	
12:45 - 1:45	Facilitated Breakout Conversations	<ul style="list-style-type: none"> Breakout Topic A – Network Screening: Implementing Predictive and Systemic Approaches Breakout Topic B – Data Access, Analysis Tools, and Assistance for Local Agencies Breakout Topic C – Crash Modification Factors: Methods and Tools to Help Select the Most Appropriate CMFs Breakout Topic D – Conducting Project-Level Safety Analysis: Quantitative, Qualitative, and the In-Between
1:45 - 2:00	Closing Session	<ul style="list-style-type: none"> Resources, Funding, and Technical Assistance Opportunities

High level metrics:

Total registration	1,549
Total attendance	1,248 (81%)
Content Views	12,922
Video Views	3,801
Downloads	7,593
Auditorium Entries	4,920
Average Duration 9/1-9/30	15:01:41

Signups vs. Attendance, per series:

September 1:	624 / 575
September 8:	928 / 520
September 15:	887 / 456
September 22:	1,181 / 576
September 29:	962 / 571

Proven Safety Countermeasures

*****Coming Soon*****

- Updating existing and adding NEW countermeasures!
- Adding a tool to help filter countermeasures by focus area, crash type, problem identified, and area type



[Roadside Design Improvement at Curves](#)



[Reduced Left-Turn Conflict Intersections](#)



[Systemic Application of Multiple Low Cost Countermeasures at Stop-Controlled Intersections](#)



[Leading Pedestrian Interval](#)



[Local Road Safety Plan](#)



[USLIMITS2](#)



[Enhanced Delineation and Friction for Horizontal Curves](#)



[Longitudinal Rumble Strips and Stripes on Two-Lane Roads](#)



[Median Barrier](#)



[Safety Edge_{SM}](#)



[Backplates with Retroreflective Borders](#)



[Corridor Access Management](#)



[Dedicated Left- and Right-Turn Lanes at Intersections](#)



[Roundabouts](#)



[Yellow Change Intervals](#)



[Medians and Pedestrian Crossing Islands in Urban and Suburban Areas](#)



[Pedestrian Hybrid Beacon](#)



[Road Diet](#)



[Walkways](#)



Source: FHWA

<https://safety.fhwa.dot.gov/provencountermeasures/>



Version 17.0.0 (September 23, 2021) now available

- Major enhancement: Implementation of crash prediction models for intersections not in HSM1 (based on NCHRP 17-68).
- Download for free from FHWA IHSDM website:
<https://highways.dot.gov/research/safety/interactive-highway-safety-design-model/interactive-highway-safety-design-model-ihsdm-overview>
- ***“IHSDM 2021 – New Intersection Models Support Data-Driven Safety Analysis (DDSA)”*** webinar on Monday October 18 (1:00 – 2:30 pm ET): register at
<https://connectdot.connectsolutions.com/e2bcd9ieww19/event/registration.html>

NCHRP 17-71A: Highway Safety Manual 2nd Edition

Committee on Safety: technical publications and outreach — HSM 2 activities

Stephen W. Read, P.E. Virginia DOT

ACS 20 ULSC Oct 05, 2021



HSM2 17-71A On-going Support

- Added HSM Steering Committee individuals to 71A Panel
- Requested time and funding extension for priority chapter contents
- Preparing for AASHTO HSM2 comments compilation

Future HSM2 Efforts

- Simplified review process
 - Stakeholder involvement in reviewing HSM2 materials was extremely valuable, hope to recreate
 - Limited review planned – with ACS20 volunteers
 - Reduce load and impact on project schedule
- Moving forward
 - 17-71A Panel, with HSM Steering Group input, will determine ACS20 and AASHTO reviewers and input requested
 - Good response from ACS20, not so much from states

HSM2 17-71A Tentative Reviews

- Blocks of chapters will be reviewed at the end of:
 - Oct 2021
 - Feb 2022
 - June 2022
 - Oct 2022
 - Feb 2023
 - May 2023 (Panel Only)
- Final AASHTO publication review and balloting in 2024

Future HSM Research Needs

HSM research:

- **NCHRP projects funded but beyond 17-71A HSM2 inclusion period**
- **Steering Comm discussed research needs and requested funds to look forward and develop a HSM roadmap**
- **Continue HSM research gap assessment with ACS20**

HSM2 Steering Committee and Tech Safety Publications Sub-Committee

Thank you to our dedicated Steering Group members!

Working to clarify longer term role and scope of committees

- Stephen Read, Chair (Virginia DOT) *
- Bonnie Polin, Co-Chair (Massachusetts DOT) *
- Dennis Emidy (Maine DOT)
- Brad Foley (Maine DOT)
- Jason Hershock (Pennsylvania DOT) *
- Trey Jesclard (Louisiana DOT)
- Jason Siwula (Kentucky TC)
- Alan El-Urfali (Florida DOT)
- Trey Tillander (Florida DOT)
- Derek Troyer (Ohio DOT) *
- John Milton (Washington DOT) *
- Kelly Hardy (AASHTO) *

* 17-71A Panel Member

Thank you.

Questions?

Stephen Read – Virginia DOT

stephen.read@vdot.virginia.gov

Bonnie Polin – Massachusetts DOT

bonnie.polin@state.ma.us

Kelly Hardy – AASHTO

khardy@ashto.org



Working Groups - Updates and Discussions on On-going/Paused ULSC Initiatives

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Policy and Legal Aspects

- Liability Neutral Roadway Safety Document
 - Publication: *Guidelines for Drafting Liability Neutral Transportation Engineering Documents and Communication Strategies*
 - Webinar: Joint AASHTO-TRB (Kelly Hardy/Priscilla Tobias)
- HSM2
 - Glossary of Terms
 - Style Guide/Terms of Use
 - Consideration of Tort Liability Implications

International Safety Research

- Synthesis statement submitted to NCHRP was not approved for this year; now refining the statement of work for future submissions
- Creating a list of international safety meetings and research studies – will share at the 2022 TRB Annual Meeting
- Considering the local agency training materials developed in the past for potential adaptation to suit jurisdictions with very limited data availability
- Planning meeting in the Fall to work on the synthesis statement of work and the local agency training
- Stephen Read suggested approaching SafetyCube (Safety CaUsation, Benefits and Efficiency) funded by the European Commission and completed in 2020; a potential presentation at TRB 2022 Annual Meeting at the ACS20 Main Committee meeting; Jennifer will coordinate with Kim/Karen

TRB 2022 Workshop Planning

▶ **Making Safe System a Reality: Planning to Implementation**

- ▶ The Safe System (SS) approach is critical for saving lives.
- ▶ This will explore SS using real-world applications and breakout discussions to define SS for all users, discuss barriers (e.g. data, measures, equity, funding, legal implications) and opportunities for SS coordination (e.g. HSM, Greenbook) and implementation, share lessons learned, and identify research needs.
- ▶ This builds on a series that has engaged 500+ agency leaders, practitioners and academics and aligns with Committee Strategic Plans.

TRB 2022 Workshop Planning: Partnership and Collaboration

- ▶ 2022 TRB AM Workshop Sponsors and Co-Sponsors
 - ▶ **ACS10: Transportation Safety Management Systems**
 - ▶ **ACS20: Safety Performance and Analysis**
 - ▶ AKD10: Performance Effects of Geometric Design
 - ▶ ACH10: Pedestrian
 - ▶ ACH20: Bicycle Transportation
 - ▶ A0040C: Rural Transportation Issues Coordinating Council
 - ▶ ACS30: Traffic Law Enforcement
 - ▶ ACS40: Occupant Protection
 - ▶ ACS60: Truck and Bus Safety
 - ▶ ACS50: Impairment in Transportation

HSM Part C Tools

- The Working Group prepared an *HSM Part C Analysis Tools Survey*, to understand the needs of safety practitioners related to the HSM Part C or site-specific predictive analysis tools. This is a joint effort from the AASHTO Committee on Safety and TRB ACS20.
- Survey went out to all AASHTO COS members on 9/28/21.
- 9 responses received so far. Will send a reminder...
- Hope to have the results compiled in advance of the TRB Annual Meeting.
- Volunteers:
 - Bonnie Polin, Brian Frazer, Daniel Carter, David Petrucci, Derek Troyer, Jacob Farnsworth, Jennifer Ogle, Jerry Roche, Kelly Hardy, Mike Dimaiuta

HSM Part C Analysis Tools Survey

Highway Safety Manual Part C Analysis Tools Survey

The survey is being conducted to understand the needs of safety practitioners related to the HSM Part C or site-specific predictive analysis tools. This is a joint effort from the AASHTO Committee on Safety and TRB ACS20 Safety Performance and Analysis Committee.

If your agency has more than one tool to conduct site-specific analysis, you may submit the survey more than once.

Name*

First Name

Last Name

Email*

Agency*

Work Unit*

Safety ▾

- Safety
- Planning
- Design
- Traffic
- Operations
- Maintenance
- Other

Analysis Methodology

Do you use site-specific predictive analysis procedures from or similar to Part C of the HSM?*

- Yes
 No

Select which best describes the predictive models used by your agency.

- Uncalibrated HSM Part C Models
 Calibrated HSM Part C Models
 Agency developed site-specific models
 Other:

Does your agency use site types not included in Part C? Please describe and indicate if these are also calibrated.

(NCHRP 17-62, 17-68, 17-77)

HSM Part C Analysis Tools Survey

Analysis Tool

What is the name of the tool?

Which of the following best describes the method used in the analysis tool?

- SPFs Only
- SPFs plus HSM CMFs
- SPFs plus state specific CMFs
- Other:

Which of the following best describes the tool used to support the analysis method?

- Interactive Highway Safety Design Model (IHSDM)
- In-house built analysis software application
- Other Commercial-off-the-shelf (COTS) analysis software application
- HSM Spreadsheet Tools (accessible from HSM website)
- Modified HSM Spreadsheet Tools
- Spreadsheet from other state/source
- In-house built spreadsheet
- Other:

What process does this tool support?

- Project Selection
- Design Exception
- Intersection Control Evaluation (ICE)
- Countermeasure Selection
- Other:

If an agency-specific tool (software or spreadsheet) is used, please describe the reasoning it was developed.

During the development of the agency-specific tool, did you use the HSM Spreadsheet Tools (accessible from HSM website) tools as a starting point or to test agency specific tool?

- Yes, starting point
- Yes, testing tool
- No
- NA
- Other:

Are CMFs included or can they be added to the tool selected above?

- Yes
- No
- NA

HSM Part C Analysis Tools Survey

If publicly available, please provide a link to the tool.

If publicly available, please provide a link to the training material.

Do you use CMFs to understand site-specific performance?

- Yes, included in the SPF tool
- Yes, included in a separate tool
- No
- Other:

Does your agency have a list of approved CMFs for use in site-specific analysis?*

- Yes
- No

Are there other tools at your agency that help support site-specific safety analysis? Please describe or you may submit a separate survey response.

Submit Form

Practical Application of HSM (1)

Research Topics submitted and considered by AASHTO Committee on Safety

- Developing Safety Performance Functions and Crash Modification Factors for Weather Related Crashes
- Developing Safety Performance Functions and Crash Modification Factors for Light, Medium, and Heavy Rail and Roadway Interfaces

Items for Possible Synthesis:

System Planning

- Simplified network screening methods: finding target crash patterns, selection of sites, and prioritizing expenditures.

Project Planning and Preliminary Engineering

- Analysis of target crash patterns and frequencies for a project (existing and predicted patterns considering design alternatives). What is the impact of the design? Will there be an increase/decrease in crashes and of what type? Is there a positive reduction in crashes? How to consider safety versus operational improvements?

Design and Construction

- Application of HSM to support implementation of Safe Systems, Practical Solutions/Design, Vision Zero, and other crash reduction/elimination approaches.

Practical Application of HSM (2)

Items for Possible FHWA or another Agency Developing:

System Planning

- Practices to integrate HSM into policies and design criteria choice for planning alternatives and transportation facility design (e.g., application/implementation of 17-81 Safety Planning research).
- Simplified methods for systemic safety countermeasure selection and prioritization.

Project Planning and Preliminary Engineering

- Methods for the selection of the combination of safety countermeasures, i.e., greatest crash reductions, most economical, etc.

Design and Construction

- Assess impact of design exceptions and modifications during construction.
- Guidance on the application of HSM in work zone designs. Follow-on to work performed under NCHRP Project 17-61, *Estimating the Safety Effects of Work Zone Characteristics and Countermeasures: A Guidebook*. May be design or operations guide on using the HSM in Work Zone Layouts/Designs.

Operations and Maintenance

- Consideration of HSM methodologies in operations and maintenance (some CMFs exist, but how best to apply both SPFs and CMFs to operations and maintenance activities):
 - Signal operation and ITS applications.
 - Enforcement operations, roaming service patrols, etc.

Practical Application of the HSM

- Even though part of the items listed could be covered under the RNS to be discussed later, several items could still be pursued as Synthesis or other works:
 - Simplified network screening methods
 - Practices to integrated HSM
 - Analysis of target crash patterns and frequencies for a project
 - Methods for the selection of the combination of safety countermeasures
 - Application of HSM for work zone design

Summary of items posted on:

<https://alabama.box.com/s/4usubomn4kro9rr0fb0opbhvt85xgzer>

For editing access, please email me at: tebarnett1@ua.edu

ACS20 User Liaison Subcommittee Local Agency Training Work Group

October 5, 2021

Tim Colling, Michigan Tech
Cong Chen, University of South Florida



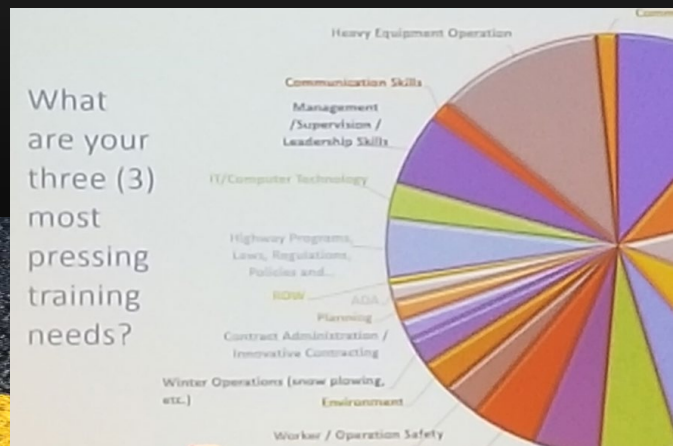
Last meeting.....

Problem: Need to determine local agency training demand and compare to supply to find gaps.

Goal: Investigate and secure survey data regarding local agency needs for training.

Sources:

- FHWA Center for Local Aid Support – Previous comprehensive survey
- AASHTO Local Roads Subcommittee – In process survey
- LTAP Centers – Conduct a new survey



Best set of Data: AASHTO Survey

Survey completed August 2021

Received for use on September 23, 2021

264 Total Responses

198 Local Agency Specific

AASHTO Local Roads Subcommittee

Thursday, August 19, 2021

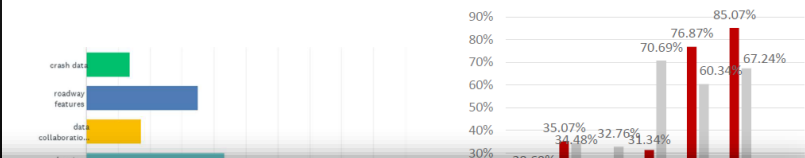
Q6: What are your top local road safety areas of focus? (drag and drop answers to rank from highest priority at the top to lowest priority at the bottom)

Answered: 196 Skipped: 68

OVERALL	LOCAL AGENCIES	STATE AGENCIES
1. Speed 7.30	1. Speed 7.55	1. Roadway departure 7.51
2. Roadway departure 6.66	2. Intersection crashes 6.53	2. Speed 6.70
3. Intersection crashes 6.49	3. Roadway departure 6.27	3. Pedestrian crashes 6.66
4. Pedestrian crashes 6.16	4. Pedestrian crashes 5.90	4. Intersection crashes 6.44
5. Intersection crashes 5.13	5. Intersection crashes 5.20	5. Pedestrian crashes 4.81
		6. Roadway departure 4.79
		7. Pedestrian crashes 3.95
		8. Roadway departure 3.07
		9. Pedestrian crashes 1.78

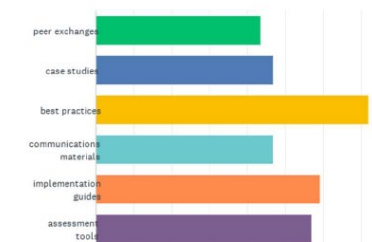
Q10: What challenges are you facing when addressing local roads? (select multiple answers)

Answered: 192 Skipped: 72



Q14: What support materials or resources would help you advance local road safety in your state? (select multiple answers)

Answered: 186 Skipped: 78



ANSWER CHOICES	RESPONSES
peer exchanges	81
case studies	87
best practices	134
communications materials	87
implementation guides	110
assessment tools	106
other (please describe)	16
Total Respondents:	186

Next Steps

- Need to digest the data, specifically written comments.
- Need to further understand the context of the survey and its coverage.

Initial concern: Training does not specifically seem to be called out as an option for a response.

Initial AASHTO comments: results point to “lack of awareness of resources”.





HSM User Discussion Forum (1)

- New temporary working group created to explore options for replacement of existing HSM form
 - The page is no longer active
 - There is still a need for an authoritative repository of HSM user knowledge and interactions
- Considering four main options:
 - Modernized online **discussion forum** (e.g., Discourse.org)
 - Periodic **technical blog** on prevalent topics and questions
 - Modernized and updated searchable **FAQ page**
 - Periodic short **digest email** on prevalent topics

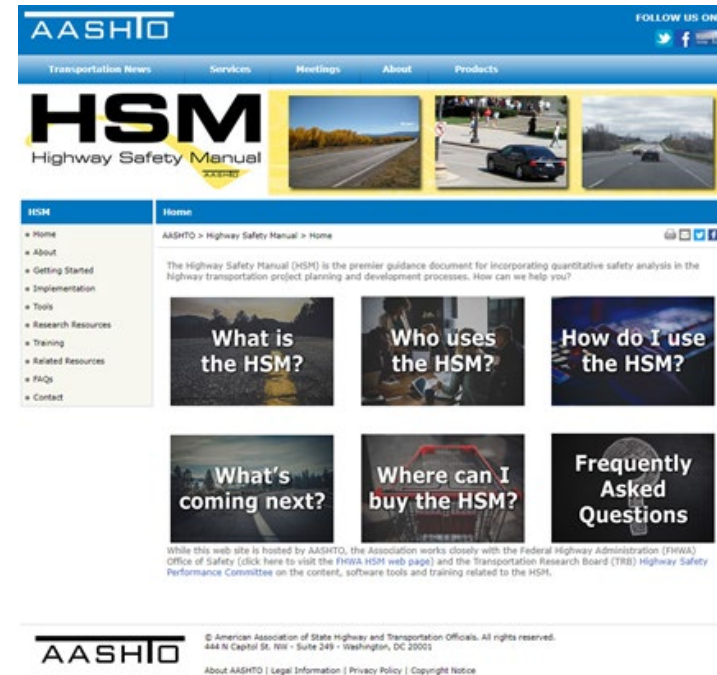
HSM User Discussion Forum (2)

- Primary considerations...
 - What do users want right now? What will they need when HSM2 is released?
 - What are HSM users currently doing to answer their questions?
 - How can we meet their needs with modern, user-friendly, interactive solutions?
 - What caused the previous forum to lose interest?
- Looking for volunteers!
 - Daniel Carter (NCDOT): dlcarter4@ncdot.gov
 - Tariq Shihadah (Jacobs): tariq.shihadah@jacobs.com

HSM Website (...holding pattern)

- Have HSM2 NCHRP work plan with chapter and research inclusion decided. Decision on request for additional funds and/or timeline for difficult chapters will follow.
- What's coming (HSM2) slides may need refresh with new work plan
- ULSC continued support and input:
 - Input on redesign for HSM2
 - Ideas for “restarting” the User Discussion Forum (www.hsmforum.org)
 - Google sheet to facilitate your input/ideas:

<https://docs.google.com/document/d/1Hua72zgDVapbzYRIKgE45UuHWOIuQJQll0gvxCBnRY4/edit>



HSM FAQs

- Latest Edition – June 2018
- Minor Updates Needed
 - New information related to HSM2
 - Changes with CMF Clearinghouse Star Ratings



HSM	FAQs
<ul style="list-style-type: none">• Home• About• Getting Started• Implementation• Tools• Research Resources	<p>AASHTO > Highway Safety Manual > FAQs</p> <p>These Frequently Asked Questions (FAQs) are based on the knowledge and experience of the developers and practitioners of the Highway Safety Manual, as well as various publications and websites, including the Highway Safety Manual discussion forum, the Federal Highway Administration's Crash Modification Factor Clearinghouse, and more. FAQs are sourced from the Highway Safety Manual Frequently Asked Questions compendium, developed by the Transportation Research Board – Highway Safety Performance Committee's (ANB25) User Liaison and Technology Facilitation Subcommittee. A PDF of the latest version of this document (June, 2018) can be found here.</p>

Future New Initiatives

- **HSM Glossary of Terms/Style Guide (Derek Troyer)**
- **HSM Part C Informational Guide (Khalid Jamil)**

HSM Glossary of Terms/Style Guide

- NCHRP 17-71A is developing a glossary of terms and a style guide, aiming to have a consistent way in presenting our work across states and other jurisdictions; as well as for future HSM editions and other research publications.
- Derek Troyer requested TRB members to contribute to the work as there may be additional terms that need to be added
- To be finalized when 17-71A is completed – the contractor will develop it before chapters are written and will maintain during the project
- After the completion of the project, AASHTO may ask the ULSC to maintain it
- The ULSC Policy and Legal Aspects working group would have a role to play throughout the development as well as later on – Priscilla Tobias will coordinate with AASHTO and NCHRP 17-71A, and we will look to create a small group of volunteers (researchers represented) so that it goes beyond HSM2

HSM Part C Informational Guide (Khalid Jamil)

- Background**
- Goal**
- Purpose and Scope**
- Organization**

Research and Synthesis Topics Update

- Overview of process and timeline
- Research Topic Statements
- Synthesis Topics

Research Topic Statements submitted by ULSC

- Practical Approaches to Quantifying Safe System Concepts
(Bonnie Polin)
- Pavement Friction and Safety Performance Integration *(Priscilla)*
- Safety Performance Functions for Curves *(Priscilla)*
- Applications Guide to the Highway Safety Manual *(Tim Barnett) – RNS submitted*
- Safety Performance Functions and Crash Modification Factors for Weather Related Crashes *(Tim Barnett) – RNS submitted*
- Developing SPFs and CMFs for Light, Medium, and Heavy Rail and Roadway Interfaces *(Tim Barnett) – RNS not submitted*

Synthesis Topics

- **Submitted before Feb. 17 deadline (not selected)**
 - Transferability of Safety Performance Measures (CMFs, SPFs, and CFs) (*Jennifer Ogle*)
- **Submitted after Feb. 17 deadline**
 - Assessment of Participatory Budgeting to Achieve Equitable Traffic Safety Outcomes (*Tariq Shihadah*)
 - A Synthesis on Artificial Intelligence (AI) Applications in Quantitative Roadway Safety Analysis (*Mohamad Banihashemi/Mouyid Islam*) - submitted via ACS20 Analytical Methods SC

Other Topics

- Collaboration with other ACS20 subcommittees and other TRB committees
- Ideas for new ULSC initiatives
- Next ULSC meeting

Thank you!