

# Research Workshop

TRB Safety Performance and Analysis Committee

June 2023

## Last Year's Research Problem Statements

- Last year, our Committee submitted 6 research problem statements for consideration by the AASHTO Committee on Safety (plus one statement that we developed submitted through another Committee)
- Of these, 3 problem statements have been funded by NCHRP for the FY 2024 program

## Funded Problem Statements

- Intersection Crash Prediction Methods for Future Editions of the HSM, \$750K
- Practitioner's Application Guide for the HSM, \$500K
- Light, Medium, and Heavy Rail and Roadway Interface SPF and CMF Development, \$500K

## Unfunded Problem Statements

- Safety Performance Effects of Traffic Signal Control Technology and Timing Practices, \$750K
- Advancing Safety Performance Integration Through Pavement Friction Management Techniques, \$800K
- Development of Weather-Related SPFs and CMFs, \$500K
- Development of Commercial Motor Vehicle SPFs and CMFs, \$500K

## 2018 Problem Statement

AASHTO has asked whether our Committee would like to resubmit this research problem statement from 2018:

- Topic: Crash Prediction Methods for Work Zones

## This Year's Research Problem Statements

- Topics identified in on-line brainstorming session in August 2022
- Topics rated in poll at the annual meeting in January 2023
- Poll questions asked for the following ratings:
  - Please rate the overall importance of conducting research on this topic.
  - Do you believe that State DOTs will consider completion of research on this topic to be a key priority?

# Summary of Ratings

Topic	Importance	State Priority
Effects of Signalization on Safety of Intersections and Ramp Terminals	41	42
Development and Refinement of Motorcycle Crash Modification Factors and Functions	38	37
HSM Predictive Method Definitions and Picture Book	34	33
Effect of Type of Jurisdiction in Crash Prediction Modeling	31	32
Developing and Validating SPFs that Combine Multiple Existing SPFs	28	28
Crash Prediction Method for Pedestrian Crashes at Roundabouts	4	4
Equity Considerations and Application of Socioeconomic Factors in Safety Management	32	3

## Breakout Groups

- Three breakout groups
- Each group to look at 2 or 3 research topics
- Recommend whether our Committee should submit each topic to AASHTO

## Breakout Groups

Edit existing problem statement text into separate stand-alone paragraphs that address the following issues:

- Title of proposed research (limit: 120 characters) – doesn't have to be the same as the current title
- Description of the issue or challenge to be addressed (limit: 1000 characters)
- Objective/products of the research and the intended audience (limit: 1000 characters)
- Relevance and priority of the research need (limit 1000 characters)
- Relevant completed and ongoing research with an overview of the gap(s) the proposed research would fill (limit: 1000 characters)
- TRB Committee contact(s): name and e-mail address

# Breakout Group #1--Intersections

Group Leader: Mike Dimaiuta

- Effects of Signalization on Safety of Intersections and Ramp Terminals
- Crash Prediction Method for Pedestrian Crashes at Roundabouts

## Breakout Group #2—Safety Analysis Methodology

Group Leader: Ingrid Potts

- Developing and Validating SPFs that Combine Multiple Existing SPFs
- Effect of Type of Jurisdiction in Crash Prediction Modeling

## Breakout Group #3—Other Safety Issues

Group Leader: Darren Torbic

- HSM Predictive Method Definitions and Picture Book
- Development and Refinement of Motorcycle Crash Modification Factors and Functions
- Equity Considerations and Application of Socioeconomic Factors in Safety Management

Questions?