

Research Problem Statement Update

TRB Safety Performance and Analysis Committee

August 2022

Research Problem Statements from the Our Committee Funded in FY23 NCHRP Program

- SPFs for Horizontal Curves

Funded Projects for AASHTO Committee on Safety FY 2023

Practical Approaches to Quantifying Safe System Concepts

Incorporating Safe System Approach into the NCHRP 500 Series

Safety Performance Functions for Horizontal Curves

Pedestrian Crossing Spacing Guidance

Integrated Strategies for Managing High Travel Speeds

Understanding the Impacts of Operational Changes on Safety Performance

Enhancing Highway Safety Manual Guidance on Pedestrian and Bicyclist Countermeasures (CMF/SPF Development)

Institutionalizing Safe Systems and Safety Culture in the Transportation Planning Process

Improved Method to Link Crash, Emergency Medical Service, and Trauma Registry Data to Expand Safety Data Analyses and Safety Program Development

Research Problem Statements Provided to AASHTO Committee on Safety in April 2022

- Intersection Crash Prediction Models for Future Editions of the HSM (Lead Author: Darren Torbic)
- Practical Application Guide to the HSM (Lead Author: Tim Barnett)
- Safety Performance Effects of Traffic Signal Control Technology and Timing Practices (Lead Author: Jerry Roche)
- Pavement Friction and Safety Performance Integration (Lead Author: Priscilla Tobias)
- Developing SPFs and CMFs for Weather-Related Crashes (Lead Author: Tim Barnett)
- Safety Performance of Intersection Right-Turn Lanes (Lead Author: Jason Hershock)

Research Problem Statements Provided to AASHTO Committee on Safety in April 2022

- Modernizing the Network Screening Process Using Machine Learning and Artificial Intelligence (Lead Author: Jonathan Wood)
- Commercial Motor Vehicle Safety Performance Models (Lead Author: Tim Barnett)
- Frontage Road Safety Performance Functions for the HSM (Lead Author: Tim Barnett)
- Safety Performance Effects of Ramp Metering (Lead Author: Jerry Roche)
- Developing SPFs and CMFs for Light, Medium, and Heavy Rail and Roadway Interfaces (Lead Author: Tim Barnett)

Research Problem Statements Provided to AASHTO Committee on Safety in April 2022

- The AASHTO Safety Committee will be reviewing these statements (and others) again in the near future to decide which to submit for the FY24 NCHRP program
- TRB SPA Committee authors have been asked to put their research problem statements into the required format for further consideration (due to Doug Harwood by Monday 8/23/2022)
- Research problem statements will be resubmitted to AASHTO next week
- This completes our role in helping to generate the FY 2024 program

Next Steps

- Need to brainstorm potential research topics for next year

QUESTIONS?