NETC Project: Applying SHRP2/ Naturalistic Driving Study Data

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June 6, 2016

About New England Transportation Consortium

- Six New England state DOTs and land grant universities engaged – leveraging resources and technical expertise
- Conduct research of common need to the DOTs
- Operates in similar fashion to NCHRP - oversight committee for the program and technical committees on project level
- Technical committee defines the project scope of work based on funded research problem statement
- Research conducted by New England land grant university
Naturalistic Driving Study

BACKGROUND:

- Over 3,400 volunteer participants
- Six sites across the U.S.
- Each participant’s vehicle heavily instrumented with cameras and sensors
- Data collected continuously from all trips taken by each participant over 1-2 years
- Resulting in a dataset that includes 2 petabytes of data covering 5.4 million trips

SHRP2 Safety Research

- Three-phase implementation process to use the SHRP2 Safety Naturalistic Driving Study; Phase 2 is now underway.
- **Nine teams from eight states** are researching these important safety concerns:
  - Pedestrian Safety
  - Roadway Departures
  - Speeding
  - Work Zones
  - Horizontal and Vertical Curves (Rural Roads)
  - Interchange Ramps
  - Adverse Weather Conditions
  - Roadway Lighting
The New England Project

- Coordinated by MaineDOT Safety Office
- Supported by other NE State counterparts – data-driven leading consensus safety needs
- Kicked Off in June 2015
- Original Project: NETC 15-2 “Using the New SHRP2 Naturalistic Driving Study Safety Databases to Examine Safety Concerns for Teens and Older Drivers”
- Engaged NDS data experts from FWHA & others to provide guidance and insight (a terrific resource)

Defining the Project

- Proof of Concept aspect
- Task 1: Develop a realistic scope of work that would translate to an RFP
- This effort consisted of a series of:
  - RFP Drafts
  - NE team & NDS data expert discussions
    - State crash data analysis comparisons to determine key issues
    - MA screened locations for appropriateness
Defining the Project

- Project scope re-defined -
  ‘To evaluate...the behaviors of drivers 65 years old and older when making left turns at signalized intersections.’ (much narrower scope than original)

- Why older drivers? Mature drivers over-represented in most New England states’ crash data (especially at signalized intersection crashes/LEFT turn maneuvers)

- NDS data will help better understand the decision process of an older driver. Findings will help enhance safety/reduce crashes.

What’s Next:

Next Project Steps:
- RFP developed and issued by NETC
- Research contractor selected
- Consultant & NETC team - Refine this study’s scope, determine relevant data, methodologies & limitations.

Project Outcomes:
- Better understand available data and linkages
- Better understand crash causal factors
- Data-driven recommendations — Design & Behaviors.
- Possibly define scope for a Phase 2
THANK YOU

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