Rural Speed Pilot Project
Speeding is a Major Problem in Roadway Safety

- 10,111 speeding-related fatalities in 2016
- 27% of all traffic fatalities involve speeding
- Around half of all speed-related fatalities are on rural roads
- Speeding increases the likelihood of a crash, and increases its severity

Source: FHWA Website
Project Goal - Find Patterns of Risk Using Speed Data

- Find heightened risk in traffic speed patterns to inform policy and decision making
- Dream deliverable: provide a tool to identify speed risk at the roadway segment level for State and local governments to use
- Identify where to invest in engineering, education, and/or enforcement to reduce speeding
Probe Data Provides a New Opportunity to Better Understand Speed Safety Risk

- NPMRDS = National Performance Management Research Data Set, which is purchased by the Federal Highway Administration
- Anonymized data from GPS-enabled devices that gets average traffic speeds along the National Highway System every few minutes
- Purchased for measuring highway congestion

Source: FHWA Website
Rural Speed Pilot Details

- Integrate crash data, roadway attributes, traffic volumes, and speed information
- Connect crashes to the traffic speeds on the roadway using time, and determine crash rates at the segment level
- New twist to prior research: NPMRDS data
- North Carolina, Ohio, and Washington State case studies
- Quantify the effects the speed differential (travel speed versus posted speed limit) and speed variation over time have on outcomes
North Carolina NPMRDS and Crash Data, 1-hour time bins, 10/01/2015

Time: 17:00-17:59
Average speed
- >70 mph
- 56 - 70 mph
- 41 - 55 mph
- 20 - 40 mph
- <20 mph
- No data

Injury severity
- Fatal
- Non-fatal
- Property damage only
- No data
North Carolina NPMRDS and Crash Data, 1-hour time bins, 10/01/2015
The Pilot Continues

- First iteration completed
- Very preliminary results show correlations between speed and crash rates
- Second iteration continues