



*North Carolina Wrong Way Driver  
Crash Initiatives*



# *California Wrong Way Driver Crash Initiatives*



Lowered “Do Not Enter” and “Wrong Way” Sign Package





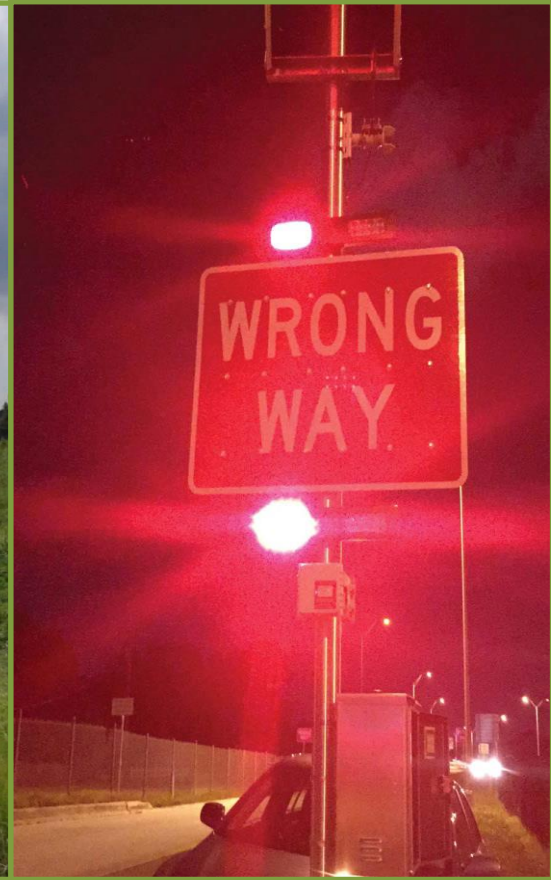
# *Texas Wrong Way Driver Crash Initiatives*



- “Wrong Way” Advisory / Blinker-sign with Radar Detection
- Reflective Tape on Sign Posts
- Reflective Pavement Markings



# *Florida Wrong Way Driver Crash Initiatives*



“Wrong Way” Signs with Rectangular Rapid Flashing Beacons





# *New York Wrong Way Driver Crash Initiatives*



Double-posted “Do Not Enter” and “Wrong Way” Signs on an Exit Ramp  
(Courtesy of the New York State Department of Transportation)

# *Washington State Wrong Way Driver Crash Initiatives*



Wrong Way ITS System on an Exit Ramp

# National Cooperative Highway Research Program



**NCHRP 03-117 [Active]**

**Traffic Control Devices and Measures for Deterring Wrong-Way Movements**

The objectives of this research are to:

- (1) Determine the type(s), number and location(s) of traffic control devices required on freeway and expressway ramps, cross streets, frontage roads, intersection approaches, and emergency cross-overs in order to improve safety and deter wrong-way movements
- (2) Evaluate the impact of varying median widths on wrong-way movement signing and marking requirements on low- and high-speed rural and urban highways
- (3) Identify inconsistencies in the Manual on Uniform Traffic Control Devices (MUTCD) pertaining to median widths used to determine whether medians are treated as one or two intersections for traffic control purposes, and
- (4) Propose for the adoption to the Regulatory and Warning Technical Committees of the National Committee on Uniform Traffic Control Devices (NCUTCD) and to the NCUTCD appropriate definitions, text, and figure changes where applicable in Parts 1, 2, 3 and 4 of the MUTCD

Project Data	
<b>Funds:</b>	\$300,000
<b>Staff Responsibility:</b>	Lori L. Sundstrom
<b>Research Agency:</b>	Texas A&M Transportation Institute
<b>Principal Investigator:</b>	Melisa D. Finley
<b>Effective Date:</b>	5/11/2015
<b>Completion Date:</b>	9/11/2017



**STATUS:** Research is in progress.

# North Carolina Freeway Wrong Way Driver Crashes

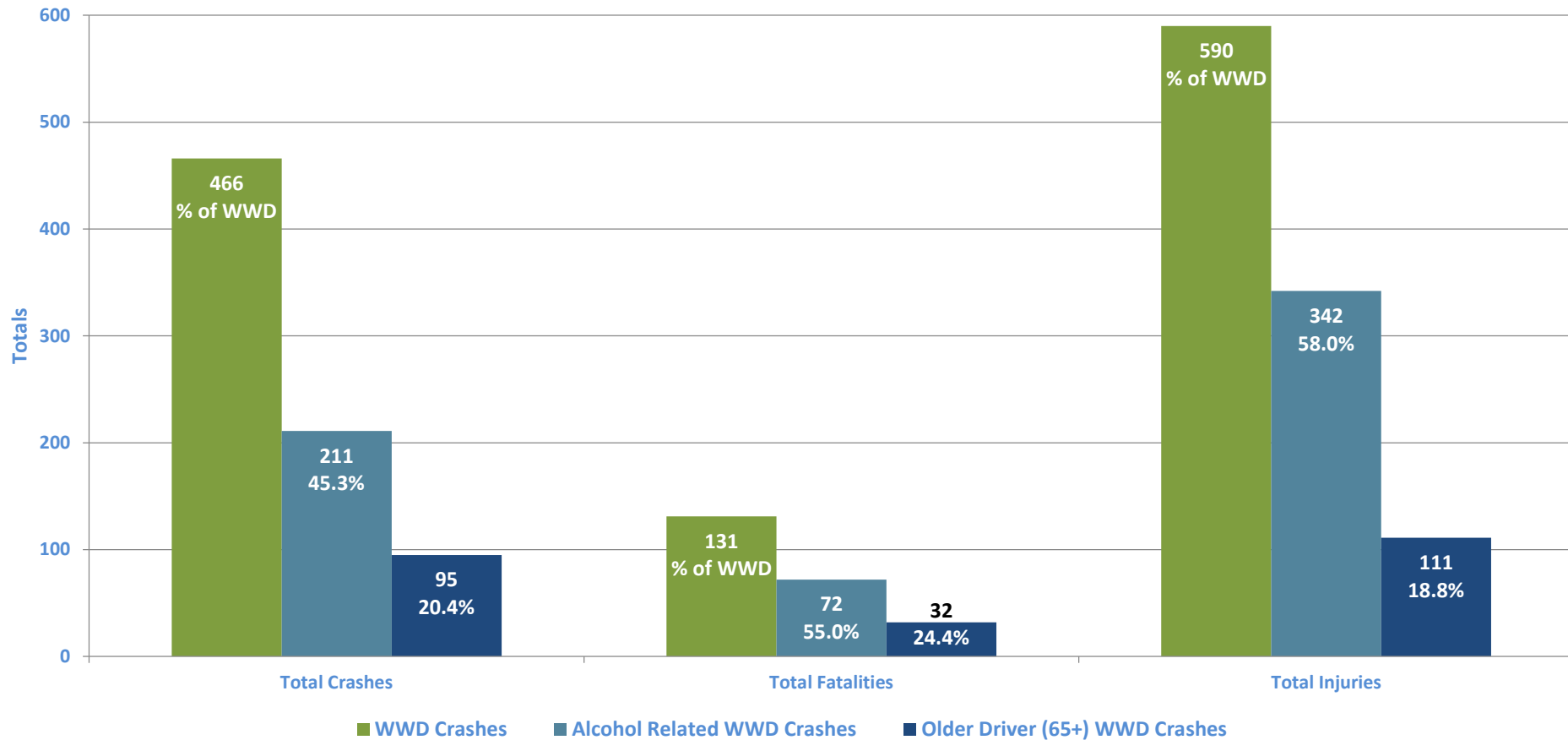


- WWD Crashes account for 0.2% of all freeway crashes
- WWD Total Fatalities account for 5.8% of all freeway total fatalities
- WWD Total Injuries account for 0.4% of all freeway total injuries





# North Carolina Freeway Wrong Way Driver Crashes



- 45.3% of all WWD Crashes were Alcohol Related
- 20.4% of all WWDs were 65 years of age and above
- 55% of WWD Total Fatalities were Alcohol Related
- 58% of WWD Total Injuries were Alcohol Related



# *North Carolina Wrong Way Driver Crash Initiatives*



Side-by-side Ramps at Lake Boone Trail and I-440 Inner Beltline, Wake County



# *Current Activities*

## Collecting video at various interchange ramps

- Ramps that were recommended by local division, Law Enforcement
- Reviewing video to see if we can find evidence of near mistakes or wrong way moves

## Developing two pilots

- Reflective Tape on all sign post in various counties.
- Using the Backs of other signs for additional message.





## *Reflective Tape*

Based upon the research showing high recognition by the target driver.

We will select various counties across the state. This will give us a control group for comparison purposes.

We will install on all WRONG WAY and DO NOT ENTER sign post at all interchanges in the selected counties.



## *Additional Signing Opportunities*

Will be using existing signs so there will not be additional mowing obstacles

Will be using a high visibility sheeting

Will install reflective tape on post of red signs.

Will be providing direct guidance “TURN AROUND”

Selecting interchanges based upon recommendations from field staff and law enforcement.

We will collect before and after video data at all sites.



# *North Carolina Wrong Way Driver Crash Initiatives*



I-95 SB Ramp (Exit 44) and SR 2341 (Claude Lee Rd)  
Cumberland County





# QUESTIONS?

