UNITED STATES
DEPARTMENT OF TRANSPORTATION

Model Deployment Characteristics

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ITS Connected Vehicle Public Meeting
Moving From Research Toward Implementation

Arlington, VA
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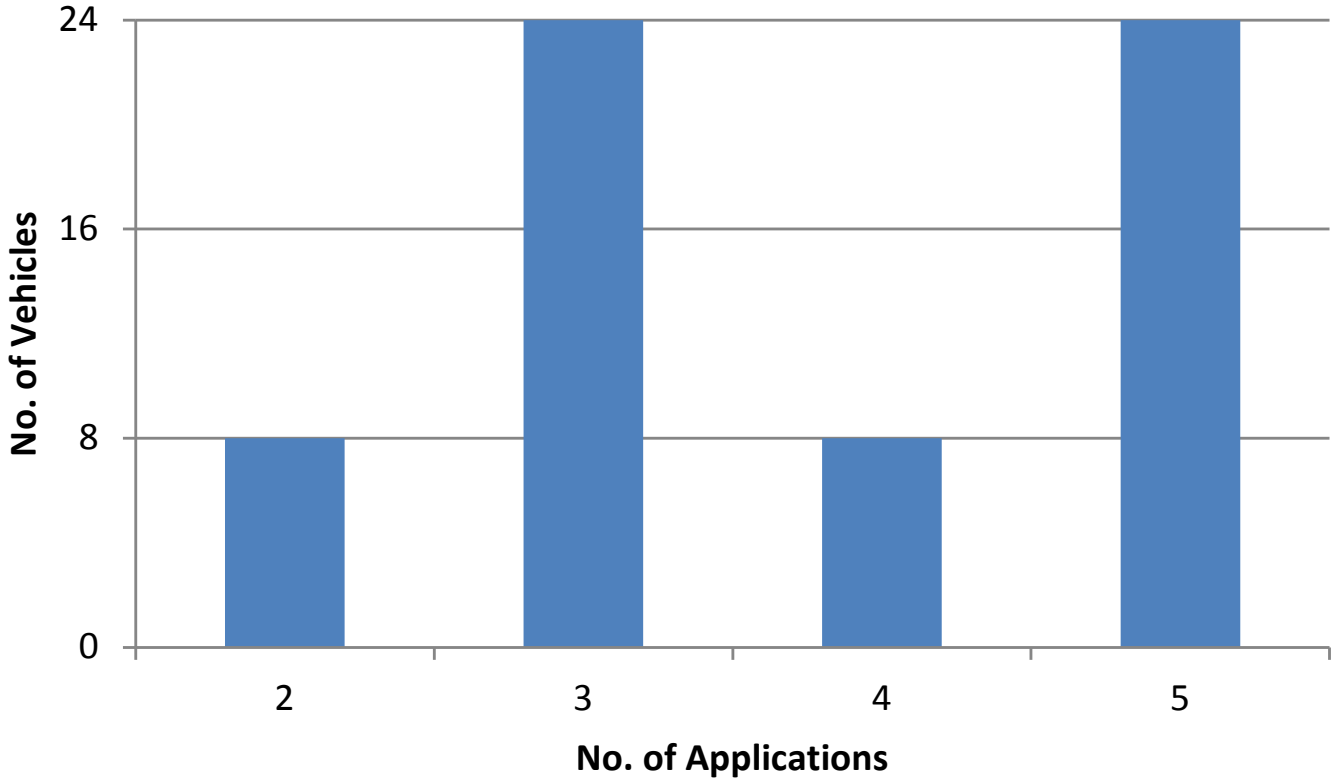
Outline

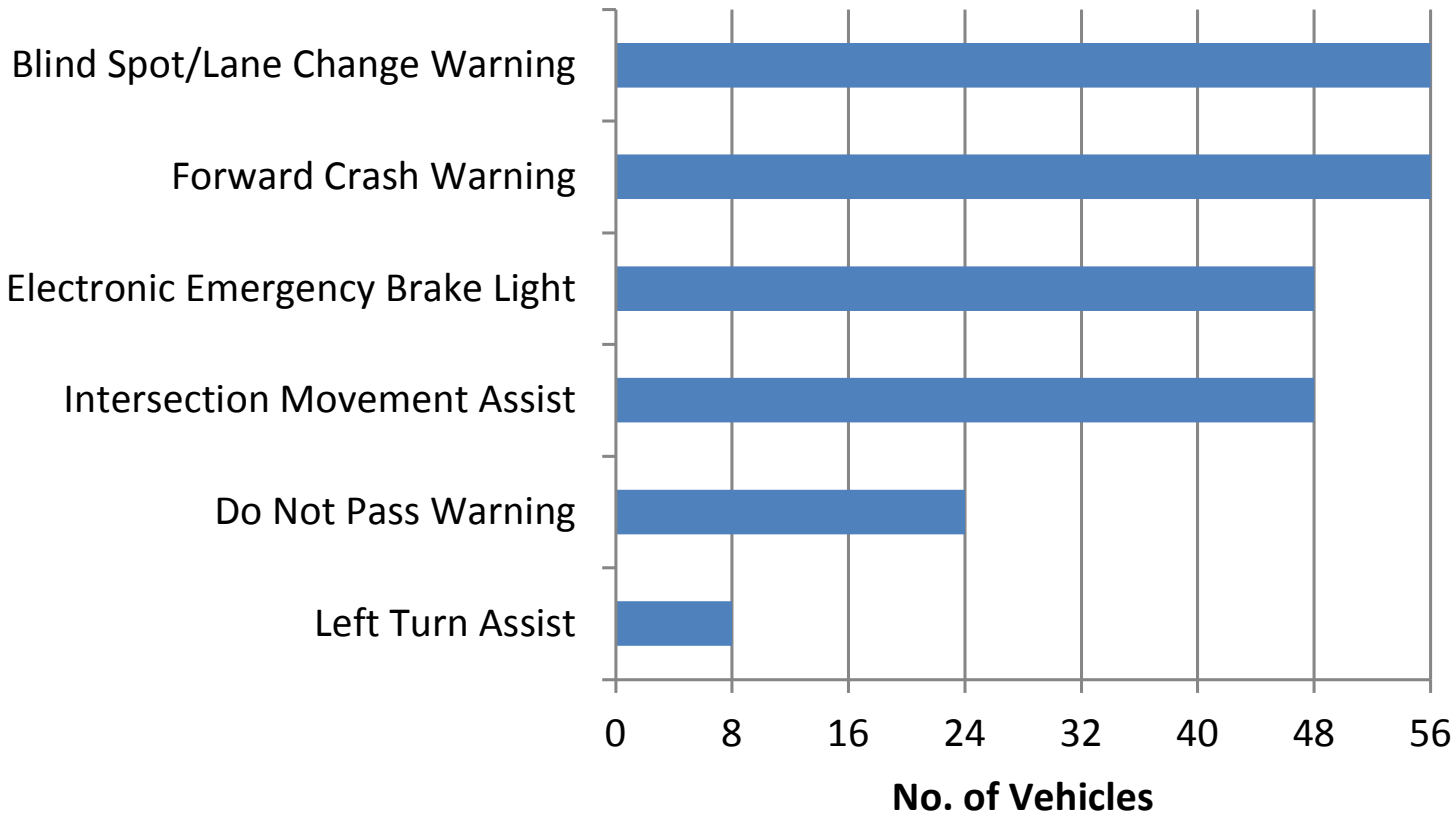
- Integrated Vehicles
- Test Subjects
- Subject Exposure
- Subjective Feedback

Integrated Vehicles by Number of Applications



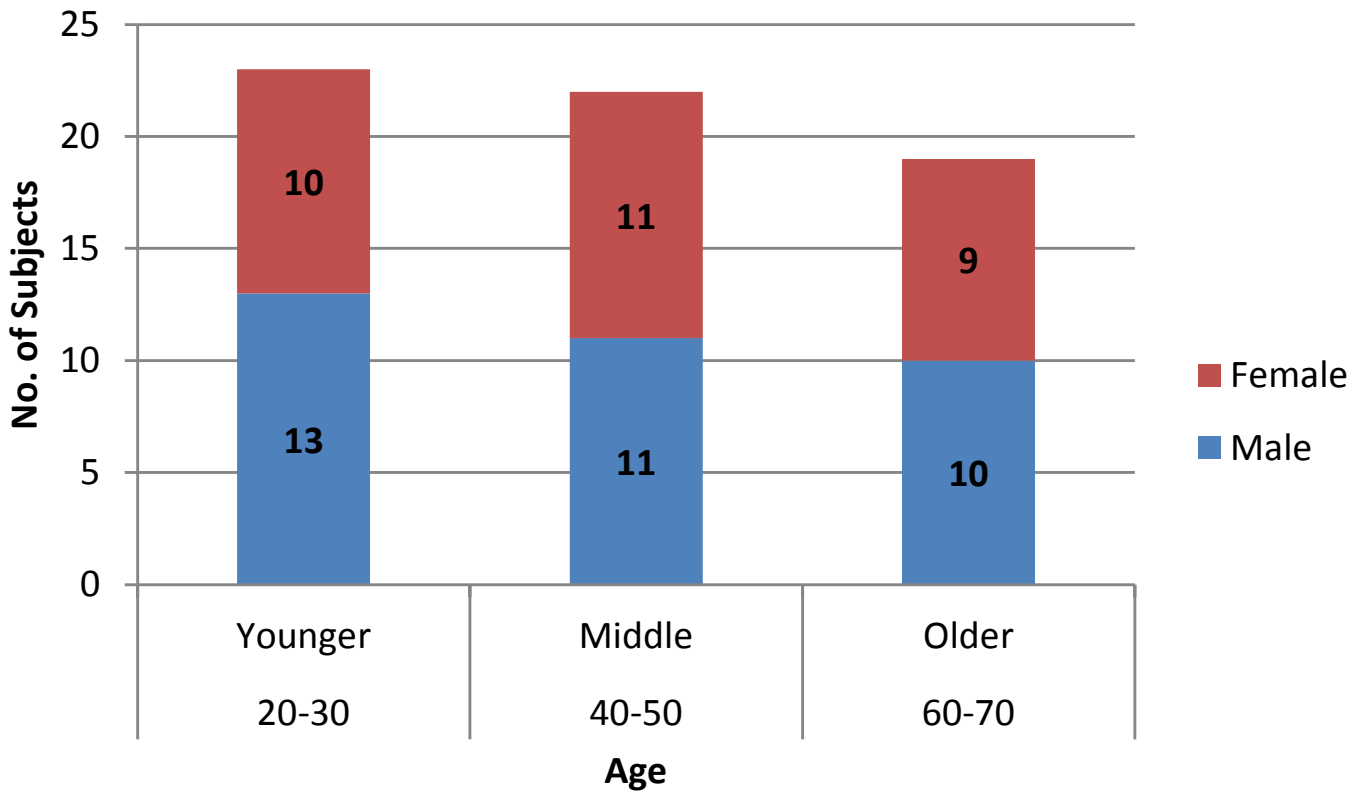
Total of 64 vehicles from 8 OEMs participated in the Model Deployment

Integrated Vehicles by Specific Application



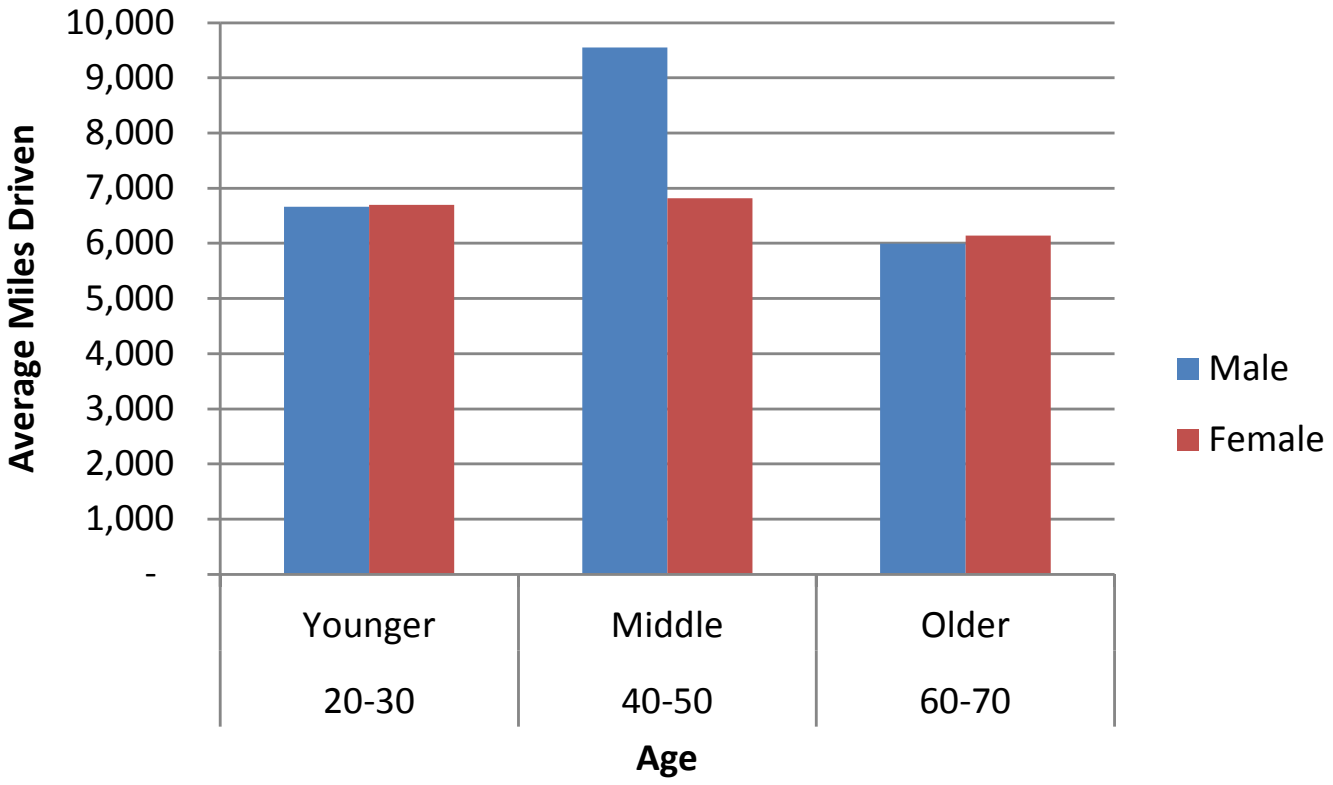
Total of 64 vehicles from 8 OEMs participated in the Model Deployment

Test Subjects by Age and Gender



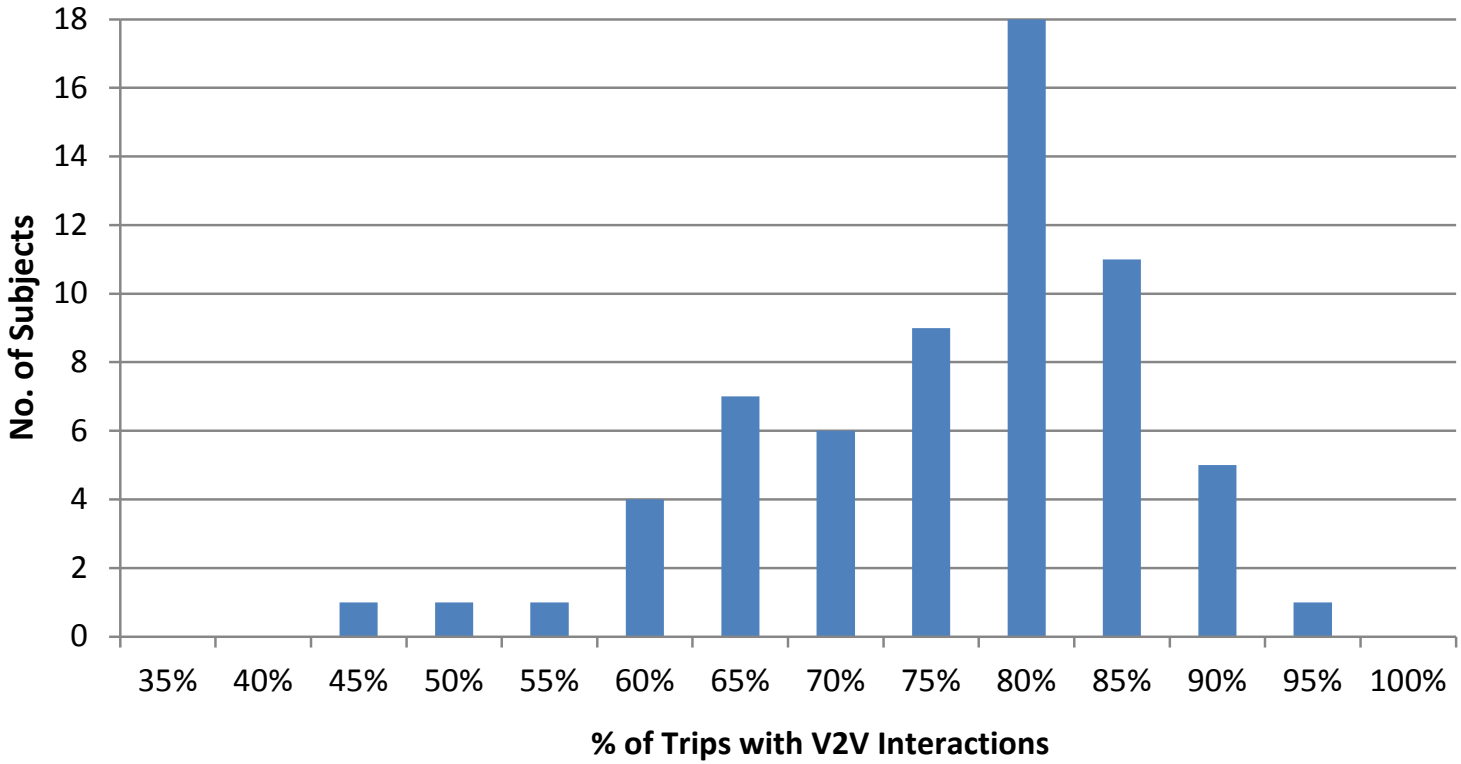
Total of 64 subjects participated in the first six months (round 1)

Miles Driven by Age and Gender

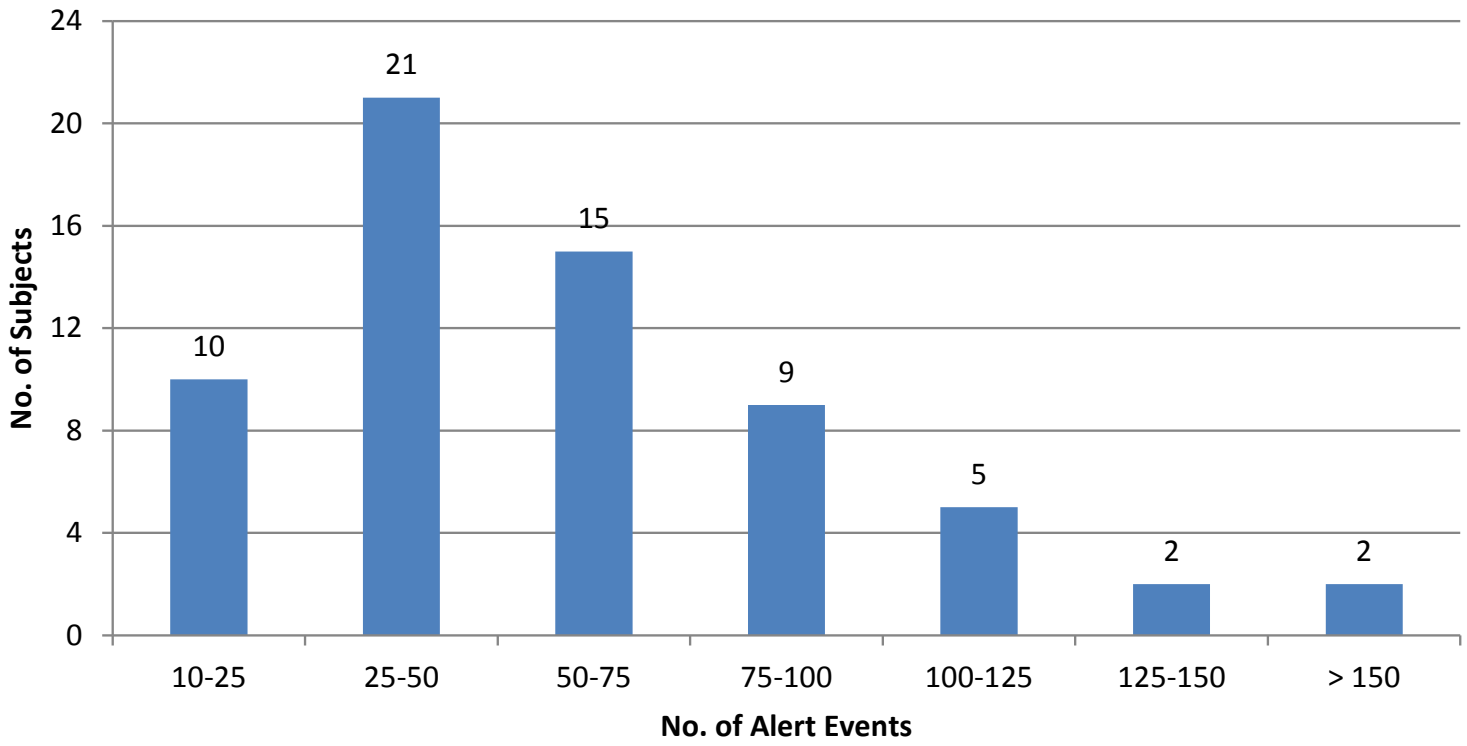


Subjects of integrated vehicles drove about 450,000 miles in six months (round 1)

Test Subjects by Trips with V2V Interactions



Test Subjects by Number of Alert Events



Alert events include cautionary and warning alerts (3,877 total alerts)

Surveys

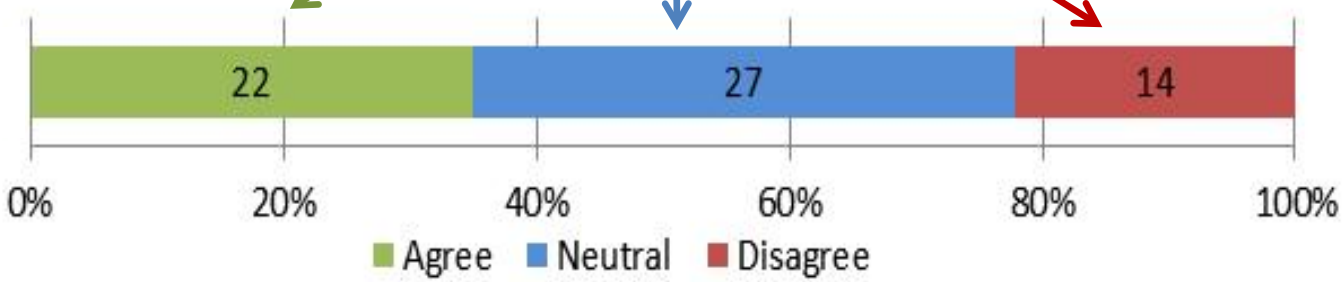
- Key Topics
  - Usability
  - Perceived Safety Benefits
  - Understandability
  - Desirability
  - Security/Privacy

Survey Structure

a. It was clear *why* the system was warning you when it warned you

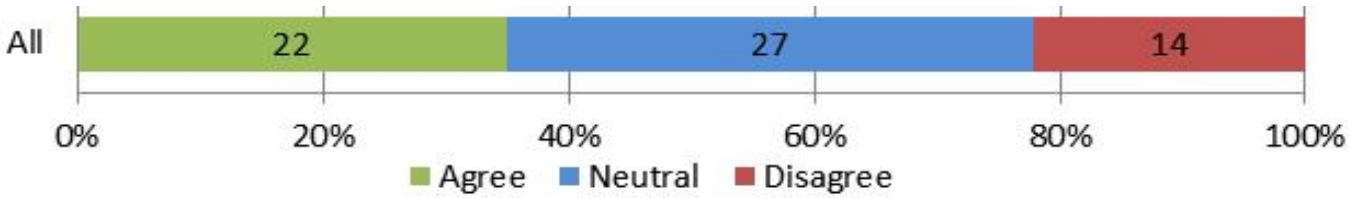
1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

"negative" **"neutral"** **"positive"**

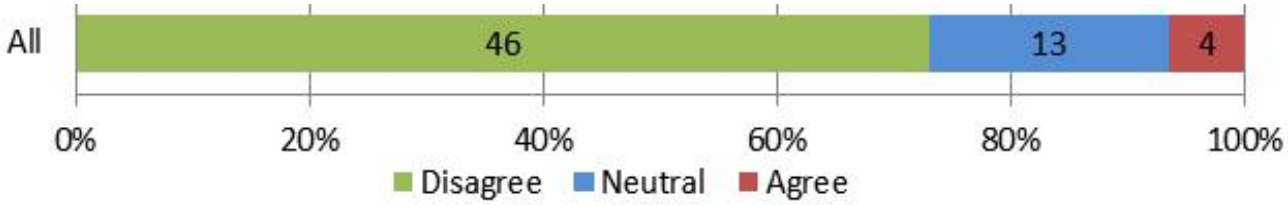


Survey Scale Results

Did the warning system increase your driving safety?

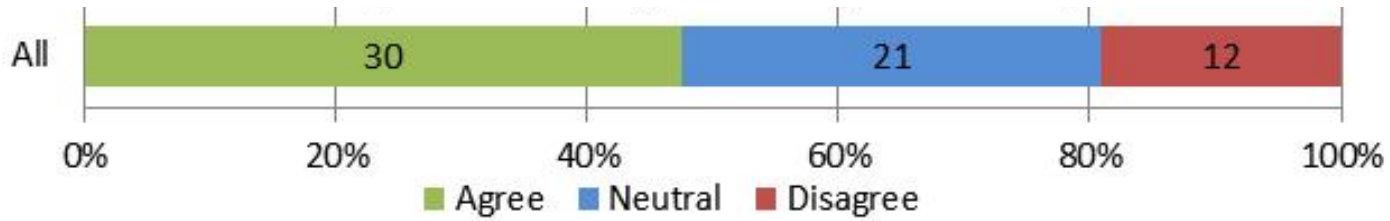


The system will cause drivers to pay less attention to the road

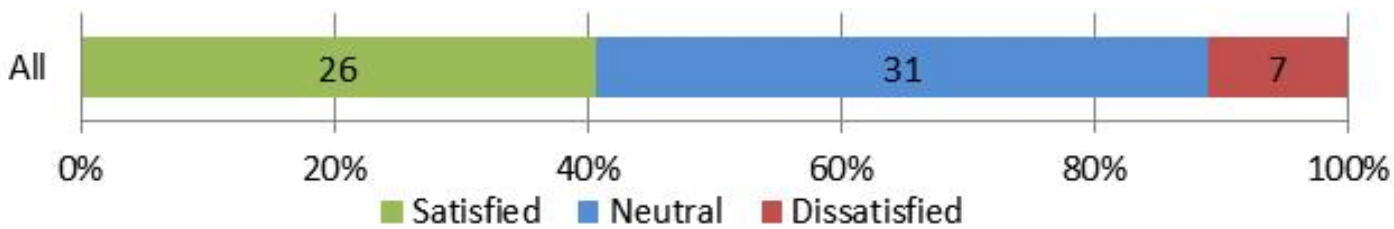


Survey Scale Results

Differentiating the various warning types was easy



Overall satisfaction with the system



Open Ended Responses

What did you like least?

- Invalid warnings:

"The warnings were more distracting than useful in my opinion, and not always clear to what they were warning of"

- Warning confusion:

"When it [the warnings] *would go off it would scare me. I would jump more from the alert system than a possible accident."*

What did you like most?

- Accident prevention/safety:

" I felt utterly safe in this vehicle. I liked the sense of knowing it would warn me."

- Applications:

"When I experienced warnings. They [the warnings] *were accurate and helpful."*

"The coolness factor. Great idea, great technology, and I enjoyed helping test it."