



ADVOCATES
FOR HIGHWAY
& AUTO SAFETY

Future Interstate Study: Safety

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About Advocates

A coalition of public health, safety, and consumer organizations, insurers and insurance agents.

We promote highway and auto safety through the adoption of safety laws, policies and regulations.

We are a unique coalition dedicated to advancing safer vehicles, safer drivers, and safer roads.

The Road Ahead

- Interstate Highway Safety
- Specific Topics
 - Automated driving and smart highways
 - Equity Issues: Access to safe Interstate mobility
 - Truck Platooning



Interstate Highway Safety

- 35,092 Fatalities in 2015
 - Interstates 4,432 (12%)
 - Rural 1,918
 - Urban 2,424

Interstate Highway Safety

- Fatalities are increasing
 - 37,461 fatalities in 2016 (up 5.6 percent)
 - This is after an 8.4 percent increase from 2014 to 2015

Interstate Highway Safety

- The Role of the Road in Safety
 - Design: curvature, sight distance
 - Laws: speed limits, passing lanes
 - Safety Technology: barriers
 - Maintenance: Pavement condition

Interstate Highway Safety

- What is the common thread...

Interstate Highway Safety

- The Role of the Future Interstate
 - Autonomous Vehicles: sight distances, marking, signage
 - Platooning: grades, bridges, truck size and weight
 - Connectivity: vehicle to infrastructure (V2X)

Interstate Highway Safety

- Facilitate and encourage uniformity in design and implementation across the interstate system.
- Consider the short and long term predictions for safety technology relative to the design and maintenance cycles.
- Review and update design principles as necessary to comport with new analyses (85% speed).

Specific Topics

- Automated Driving and Smart Highways
- Platooning
- Equity

Automated Driving and Smart Highways

- The AVs are coming
 - VMT, fleet size, ownership, congestion
 - Technology requirements
 - Machine vision, conflicting sensors
 - Fleet mix of SAE Levels, humans and machines
 - Big Data



Automated Driving and Smart Highways

- Remember that changing role
 - Interstates as a AV target
 - Uniform, limited access
 - V2X: V2V rulemaking
 - DSRC vs. 5G / LTE



Platooning

- Predicted future freight demands are enormous
- Platooning offered as a solution
 - Fuel savings, reduce congestion
- But what about safety?
 - Reliant on other technologies such as automated braking
 - Interacting with other vehicles (merging, passing)

Platooning

- What about impacts on the road?
 - Truck size and weight interaction
 - Road design
 - Network design
 - Rest Stops, distribution centers, access



Equity

- Accessibility to mobility has been a big selling point for AVs / Smart Roadways
 - Independence
 - Opportunity
- Without controls however
 - Leave most vulnerable stranded



Recommendations

- Support regulation of AV technology
- Support fleet wide adoption of technology presently available
 - ADAS: crash imminent braking, LDW, Blindspot
- Support V2X
- Include interaction of coming safety technology in design of the future interstate
- Get ready for big data

Thank you

- Advocates for Highway and Auto Safety
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