



Overview: Federal Automated Vehicles Policy (US DOT/NHTSA)

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October 26, 2016



Data

613,501

Lives Saved by Vehicle Safety Technologies and Associated
Federal Motor Vehicle
Safety Standards, 1960-2012
(DOT HS 812 069 - Published in Jan, 2015)



Most Recent US Fatality Data (2013-2015)

| | 2013 | 2014 | 2015 | % change (14-15) |
|-------------------------------|---------------|---------------|---------------|---------------------|
| Passenger Vehicle Occupants | 21,132 | 21,050 | 22,241 | +6.6% |
| Large Truck and Bus Occupants | 691 | 656 | 667 | +1.7% |
| Motorcyclists | 4,668 | 4,594 | 4,976 | +8.3% |
| Pedestrians | 4,735 | 4,910 | 5,376 | +9.5% |
| Pedalcyclists | 743 | 729 | 818 | +12.2% |
| Total* | 32,719 | 32,744 | 35,092 | +7.2% |

9,874 passenger vehicle occupants unrestrained
10,265 killed in drunk driving crashes

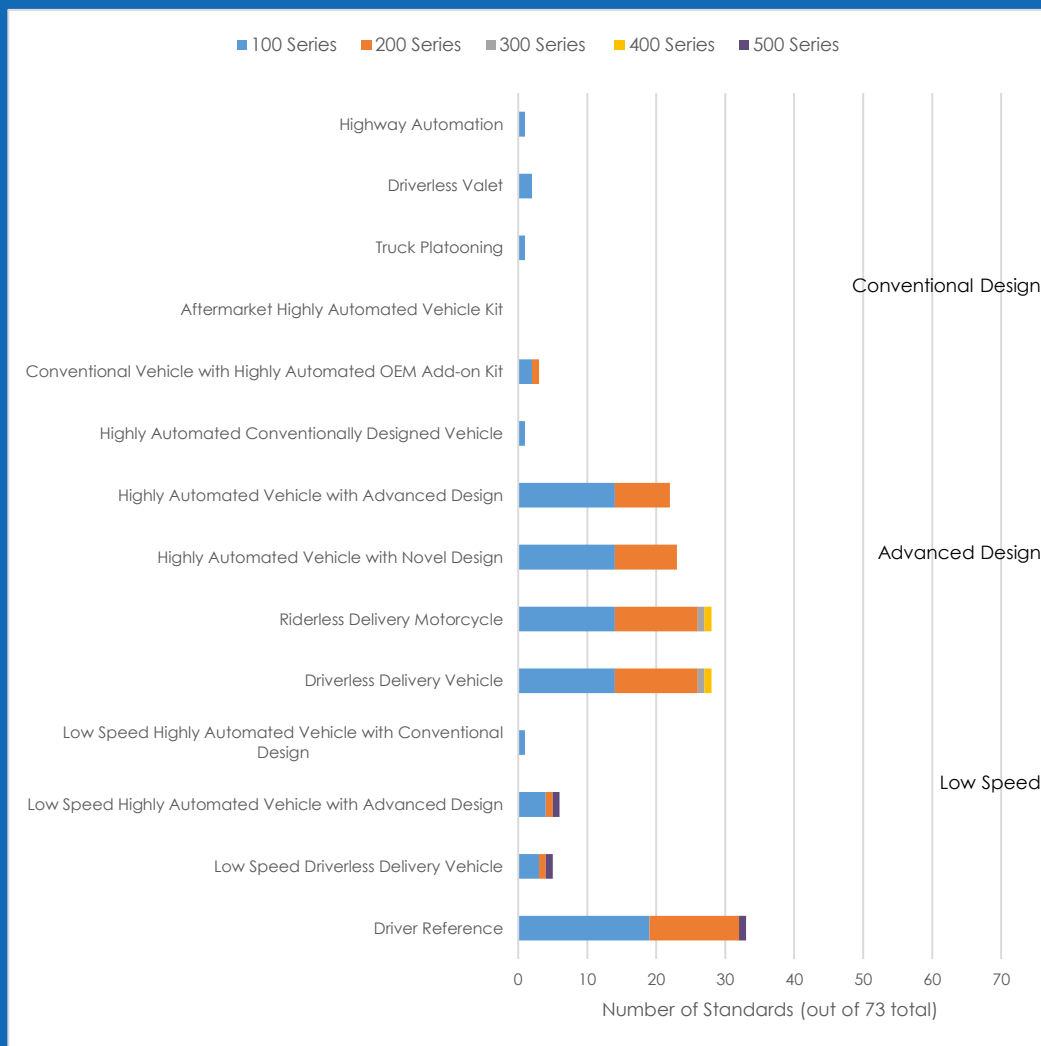


January 2016 USDOT/NHTSA Announcement:

- Accelerate Vehicle Safety Innovations:
 - Focus on:
 - Vehicle Guidance
 - Model State Policy
 - Current regulatory tools
 - Identify potential new tools and authorities



Do Current Regulations Need to Change?



Review of Federal Motor Vehicle Safety Standards for automated vehicles,
http://ntl.bts.gov/lib/57000/57000/57076/Review_FMVSS_AV_Scan.pdf



Public Input:

- Public Meetings
 - April 8 (USDOT, Washington, DC)
 - April 27 (Stanford, CA)
 - Participation
 - In-person attendance
 - Technical remarks by attendees
 - Written comments
- Many additional stakeholder meetings
- Agency sought input on several topic areas



Result:

- *Federal Automated Vehicles (FAV) Policy*

- Released September 2016

www.transportation.gov/av

- 60-day public comment period

- Request for Comments (RFC) published on Sept 23, 2016

- Docket No. NHTSA-2016-0090 (Document No. 2016-22993)

- Comment period closes November 22, 2016





FAV Policy - Main Sections

- Vehicle Performance Guidance for Automated Vehicles
- Model State Policy
- NHTSA's Current Regulatory Tools
- New Tools and Authorities

Levels of Automation

- Adopts SAE International definitions (SAE J3016)



FAV Policy: Vehicle Guidance - 15 Safety Areas

- Data Recording and Sharing
 - Privacy
 - System Safety
 - Vehicle Cybersecurity
 - Human-Machine Interface
 - Crashworthiness
 - Consumer Education and Training
 - Registration and certification
 - Post-Crash Behavior
 - Federal, State, and Local Laws
 - Ethical Considerations
 - Operational Design Domain (ODD)
 - Object and Event Detection and Response (OEDR)
 - Fall Back Minimum Risk Condition
 - Validation Methods
- Crosscutting Areas
- System Specific Areas



FAV Policy – Safety Assessment Letter

- Outlines how manufacturers/other entities meet the 15 safety areas
- Additional letters if hardware or software changes materially change one or more of the 15 areas
- Letter is voluntary
 - HAVs (SAE L3-L5)
 - L2



FAV – Next Steps

- FAV Policy Document is a first step, significant additional public input and work tasks ahead!
- Many next steps envisioned, including:
 - Request for Comments RFC (published)
 - Public workshops/ other stakeholder engagement
 - Work plans for certain areas in vehicle guidance and state model policy sections
 - Education/outreach
 - Notice and Comment on potential changes to regulatory tools and authorities



For More Information

USDOT Public Website for FAV Guidance:

www.transportation.gov/av