

Background and Context

Autonomous vehicles (AVs) present an opportunity to transform our transportation sector on a scale unseen since the invention of the car itself. Beyond the significant societal benefits such as dramatic improvements in roadway safety and greater mobility for all Americans, AV technology can serve our economic and national security goals by enabling fuel efficiency gains and serving as a market-driven accelerator for alternative fuel platforms such as electric and hybrid vehicles. AVs can precipitate a shift away from the transportation sector's outsized dependence on oil and provide new options to power our vehicle fleet.

In September 2016, the Obama administration published a federal automated vehicle policy (FAVP) via NHTSA that took initial steps towards a unified regulatory framework for AVs. However, the current policy lacks the legal stature and clarity needed to properly advance this technology. As a result, states have moved to fill the void, creating a patchwork of AV regulations that threatens to hinder development and allow other countries to close the gap on American AV leadership.

While the Trump administration announced that it would reevaluate the FAVP in February 2017, Congress has stepped in to introduce comprehensive, bipartisan legislation to advance self-driving technology.

Overall analysis

SAFE has advocated for strong legislation that would 1) create certainty for developers by creating a federal framework for AV regulation, 2) remove obstacles to AV deployment resulting from state overregulation, 3) creating a pathway to deployment for innovative vehicle designs not anticipated by current regulations, and 4) ensuring that the benefits of AVs reach vulnerable and underserved segments of society.

This legislation makes advances on each of these fronts, and therefore represents a significant improvement over the status quo. SAFE supports the legislation as it advances in the House, but has reservations about elements of some provisions as they currently stand. We look forward to continuing its advocacy mission and engagement with stakeholders and legislators to allow AV technology to reach its full potential to benefit society.

Below, we review some of the key provisions of H.R. 3388 (The SELF DRIVE Act), analyze its potential impacts, and, where warranted, offer suggestions for improvement.

A. Analysis of Key Provisions of H.R. 3388¹

Pre-emption

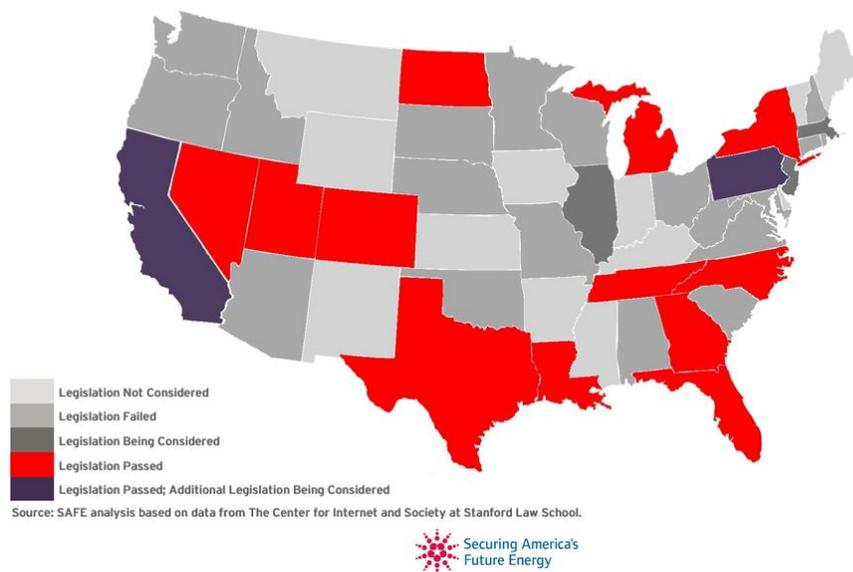
Section 3

The legislation enjoins states or localities from regulating the design, construction or performance of Highly Autonomous Vehicles. The ability for states to regulate licensing, liability, and congestion management, among other areas traditionally regulated by states, is explicitly preserved.

A bipartisan approach to preemption will mitigate a patchwork of state regulations that would needlessly burden AV introduction. SAFE has been active at the state and federal level in advocating for a single, unified national framework to foster AVs, which is not possible if states can create their own set of regulations.

We note our concern that the legislation potentially allows states to license AV “drivers”, which could potentially place obstacles to innovation, including by preventing shared, on-demand business models that are critical to reduced oil consumption, or by impeding the potential for autonomous transportation for people with disabilities, older Americans, and other underserved populations. To remove ambiguity, we recommend including language to prevent licensing authority from being misused by states to prevent mobility access for the disability community, particularly in higher levels of autonomous vehicles, “L4s” and “L5s.” AVs fundamentally conflate the distinction between vehicle and driver, requiring a modern regulatory approach to licensing that prevents licensing rules from dictating vehicle design and usage.

Thirty-seven states have considered legislation regulating autonomous vehicle (AV) technologies, of which 14 states have passed such measures. In the absence of a uniform federal framework, a jumble of state legislation impedes AV testing and deployment.



¹ As unanimously advanced by the House Energy and Commerce Committee on July 27, 2017

Federal Safety Standard

Section 4

This section would instruct NHTSA to issue a final rule requiring the submission of a safety assessment certification within 2 years of enactment and sets up periodic reviews of this requirement. In the interim, the legislation requires the submission of the Safety Assessment Letters introduced by the FAVP. Concurrently, the legislation would require NHTSA to formulate a safety and rulemaking roadmap, and begin the rulemaking process within 1.5 years.

This provision fills the vacuum created by the absence of a federal standard for AVs. The absence of such a standard creates uncertainty for developers and contributes to reduced public confidence in AV safety.

The greater need is for a modern AV regulatory framework that is based on performance standards. The use of the SAL as an interim tool is appropriate so long as it does not create an undue burden on AV developers. We look forward to working with NHTSA, Congress, and stakeholders to ensure that the results of this rulemaking timeline provide a clear pathway to AV deployment. By instructing NHTSA to create a standard, and using the safety assessment letter (SAL) as an interim regulation, Congress is beginning to fill out the regulatory framework for AVs.

Exemptions

Section 6

The bill would allow NHTSA to grant AV developers exemptions from FMVSS for up to 100,000 vehicles per year, up from the current cap of 2,500, as a means to enable AV deployment and data gathering capabilities as the technology is perfected. The allowance is staggered, increasing the cap in the first year to 25,000, in the second year to 50,000 and in the third and fourth year to 100,000. The section also extends the duration of exemptions from 2 to 5 years. However, no exemptions for AVs from crashworthiness standards can be issued until DOT issues the safety certification rule referenced in Section 4, with certain limited exceptions.

Exemptions are necessary to permit transformative and innovative vehicles on the road, and the process requires an extensive vetting by NHTSA before any exemptions can be issued. As a result, exempted AVs will be amongst the most vetted vehicles allowed on the road and SAFE recommends expediting the exemption application and approval process without unnecessary delay.

While the expansion of exemptions is positive, **the provision needlessly excludes from these improvements exemptions sought for low emissions vehicles**, leaving in place the existing low cap and short duration period and creating unnecessary policy space between AVs and alternative fuel vehicles, [despite research that demonstrates their natural market-driven connection](#).

Moreover, the provision creates an aggregate cap on exemptions for each OEM. While SAFE strongly believes that AVs will serve as a powerful integrator for electric, hybrid and other alternative drivetrain vehicles, experts anticipate a “mixed fleet” for decades to come. Creating an aggregate cap on

exemptions puts potentially breakthrough, non-autonomous low emissions vehicle technology in direct competition against experimentation with AV and other technology categories.

Expanding the grounds for exemptions to include the development of AVs is an important step and will allow developers to create novel vehicle designs to promote innovation, increase energy efficiency, enable fuel choice, and improve disability accessibility. SAFE has advocated for a more flexible exemption process, including [promoting](#) the nexus between AVs and improved transportation independence for people with disabilities, seniors and others.

The expansion of exemptions to cover AVs represents important progress. However, excluding low-emission vehicles from the categories that will benefit from this provision lacks justification. In fact, an earlier draft of the bill would have created an additional category for exemptions – increasing mobility access for the disability community. That category should be restored in the legislation.

Beyond these elements, the section requires that crashes involving exempted vehicles be reported and a database of exempted vehicles be maintained. NHTSA must issue guidance streamlining the exemption application process.

SAFE recommends additional steps to further improve the exemption system and suggests that NHTSA commit to an accelerated timeline of six months to process exemption requests.

Leveling the Playing Field

Section 7

This measure would expand AV testing authority – without an FMVSS exemption requirement – to non-OEMs, creating a more level playing field between established automakers and technology companies.

Facilitating innovation requires an open approach with respect to different levels of automation, different business models, and companies from different sectors. The FAST Act authorized this testing ability for OEMs, and this section would expand that allowance to other entities. It is impossible to predict where innovation will come from and SAFE applauds the committee for creating a level playing field for AV testing.

Advisory Committee

Section 9

In this section, Federal Advisory Committees would be established to advise the Secretary of Transportation on issues of importance to the deployment of AVs, including: advancing the transportation independence of people with disabilities, senior citizens or other underserved populations; creating a framework to allow the anonymized sharing of data (“situational information”) between OEMs and others to expedite testing, deployment and fleet learning; the impact of AVs on labor and employment, and the fuel usage impacts of AVs.

Building industry consensus on these issues will be crucial for continuing to develop the AV regulatory framework. SAFE has been [deeply involved](#) in identifying and promoting the potential benefits of AVs to the disability community and [supports Congress](#) establishing formal mechanisms to afford these communities a voice in the policymaking process.

Additionally, fleet learning is a critical element in quickly maximizing the safety benefits that AVs can offer. Whereas human drivers must learn to drive safely from individual experiences or mistakes, data sharing between AVs would allow an experience had by one vehicle to be immediately “learned” by all. The recommendation to create an anonymized data sharing consortium to share information while protecting proprietary information featured prominently in the recommendations of SAFE’s [AV Safety Commission](#).

B. Additional Legislative Ideas

In addition to the ideas put forth by the House legislation other, complementary, policy recommendations could further accelerate the adoption of AVs and maximize their social value.

1. [AV Liability](#)

Background: Without a clearly defined standard of care, AV developers run the risk of letting the “perfect be the enemy of the good” – or even great. Given the growing number of fatalities and injuries on U.S. roadways, the vast majority of which caused by human error, expediting the safe testing and deployment of AVs is in the national interest.

To combat this possibility, the AV industry could be incorporated into an alternative liability structure, with various models existing in the pharmaceutical, nuclear and aviation industries. While there are risks to such an approach, a targeted solution could be crafted that respects the role of the tort system to ensure responsible behavior.

Recommendation: Congress should create a “safe harbor” for developers that can demonstrate that their AV is as safe as the average human driver (or other standard set by Congress, e.g. twice as safe as the average human driver). Under this proposal, which could be implemented on a limited or trial basis (see recommendation #3), if a company is sued for an accident involving an AV, punitive damages could be capped or limited if the company is able to demonstrate, to a reasonable burden of proof, that the AV performed at the level of the standard.

2. [Deployment Communities](#)

Background: A number of underserved communities could strongly benefit from access to AV technology, but are not today a focus during development, testing or deployment. This includes senior citizens, people with disabilities, low-income Americans and rural communities.

Currently, major AV developers are “forum shopping,” working with states or localities offering the most supportive, and regulatory favorable, environment. Public policy, however, has a vested interest in expanding the base of potential deployment communities by encouraging developers to consider specific social-use cases, such as reaching specific populations or testing “first mile-last mile” solutions for underserved areas dependent on public transportation.

Recommendation: Congress should authorize deployment communities on a voluntarily, opt-in basis. For self-selecting communities, Congress could grant AV developers flexibility on either regulatory or liability rules within its boundaries, with the consent of the local community.

These communities would not only serve as a testing ground for AV deployment to benefit the social good, but improve transportation options for the local community and serve as nation-leading laboratory for technological and policy innovation.