

Additional Questions for the Record

Subcommittee on Consumer Protection and Commerce
Hearing on
“Autonomous Vehicles: Promises and Challenges of Evolving Automotive Technologies.”
February 11, 2020

Mr. Gary Shapiro, President and CEO
Consumer Technology Association

The Honorable Tom O’Halleran (D-AZ)

1. Can you please elaborate on how self-driving cars are safe and user-friendly for older Americans and those with disabilities?

Self-driving vehicles (SDV) will provide undreamed of independence and mobility for seniors and people with disabilities. A report from the Ruderman Family Foundation estimates that self-driving cars could open two million employment opportunities for people with disabilities.¹ But the positive impact this technology will have on the quality of life for people with disabilities cannot be captured by a number. SDVs will enable seniors to maintain their independence for longer—no more waiting for a family member to drive to a doctor’s appointment or run important errands.

Companies developing self-driving vehicles are designing and developing these platforms with seniors and people with disabilities in mind. CTA and many of our member companies have worked from day one to ensure both disability groups and senior groups are at the table sharing information and ideas on how to ensure their communities will be able to access this life-changing technology.

The Honorable Tony Cardenas (D-CA)

1. What new job opportunities will come from AV manufacturing and deployment?

Self-driving vehicles will create new jobs as the industry will need SDV technicians, IT workers, data analysts, remote operators – and some jobs we don’t yet realize we’ll need! Further, SDV technology will enable millions of seniors and people with disabilities to have access to the job market.

¹ https://rudermanfoundation.org/white_papers/self-driving-cars-the-impact-on-people-with-disabilities/

2. How will impacts to existing occupations vary depending on levels of automation?

Technology and automation will have an impact on the current workforce. Some jobs may eventually no longer be necessary, while new jobs will come into existence. There will likely be a lower demand for professional drivers, or as we have fewer accidents, less of a need for tow trucks or auto repair shops. There could be impacts on the insurance and health care industries. That's why it is important for industries to think ahead and prepare now for the day when most vehicles are self-driving and the number of roadway fatalities and injuries may be close to zero.

3. What occupational barriers must workers overcome to transition successfully to new AV jobs/occupations?

Our industry recognizes the need to plan now to mitigate negative impacts on the job market and prepare our workforce for the transition. CTA and 60 of our members signed the Pledge to America's Workers to add 2.5 million new U.S. worker training opportunities over the next five years.

The Honorable Michael C. Burgess, M.D. (R-TX)

1. Mr. Shapiro the American Association for Justice points out the potential cyber threats by "foreign adversaries" to autonomous vehicles. We must ensure we are doing everything we can to guard against foreign cyber threats.
 - a. Can you explain the potential vulnerabilities that could be exploited by foreign adversaries in autonomous vehicles?

Cybersecurity is top of mind for our members, both in the automotive space and more broadly, with the Internet of Things. To be prepared, we need to be proactive, but also able to respond quickly to new threats. Cyber threats are iterative, and companies are constantly updating their approaches. CTA is working through the Council to Secure the Digital Economy (CSDE) to lead the effort on IoT "baseline" security with NIST. As it relates to self-driving and connected vehicle security, automakers created the Automotive Information Sharing and Analysis Center (Auto-ISAC) and best practices. Auto-ISAC operates as a central hub that allows members to anonymously submit and receive information to help them more effectively counter cyber threats in real time.

- b. Are you worried that if we cede American leadership in autonomous vehicle development, including that blueprints for technology may be held beyond our borders, the threat increases?

As we see from our International Innovation Scorecard², global competitiveness in SDVs, AI, and others is a real concern. While the US is currently at the forefront of self-driving development, the lack of federal legislation to clear the regulatory hurdles could lead to our companies moving testing overseas and provides an opening to foreign governments to take the lead. China has made SDVs a national priority, establishing technology standards and industry guidelines for self-driving vehicles. This was part of a broader effort on the part of the Chinese government to develop the SDV industry as a part of their overall plan to reorient the economy toward a more high-tech industrial model. China is not the only one expanding development. We see testing, pilot programs and updates to regulations across the globe. Toyota will be conducting a ride-hailing pilot in downtown Tokyo with its fleet of “SAE Level-4” self-driving vehicles this summer. Germany has a national strategy for SDVs, and a goal to ‘remain the lead supplier for automated and connected vehicles and become the lead market’ for SDVs. In Canada, Toronto has full-time staff dedicated to SDVs and is working on a pilot for an autonomous shuttle program on public roads.

The Honorable Richard Hudson (R-NC)

1. Last Congress, Mr. Lance, along with Ms. Dingell and Mr. Rush, introduced H.R. 3408, the EXEMPT Act, which passed the House unanimously as part of the SELF DRIVE Act. The EXEMPT Act created a new exemption category for autonomous vehicles and required a developer to submit robust data to demonstrate their autonomous vehicle met or exceeded the safety of traditional vehicles. I am pleased to see this critical issue part of the ongoing discussions this Congress.
 - a. As the head of CTA you understand a thing or two about innovation. I imagine you would agree this technology provides endless possibilities and extraordinary potential for consumer convenience. How do we balance progress and public safety? At this point, how are we doing and what do you think are the most urgent changes that need to be made?

Self-driving vehicles will lead to an enormous reduction in – and perhaps eliminate entirely – roadway fatalities. SDVs will also provide new mobility options for seniors and people with disabilities. I believe we are well on the way to making those possibilities a reality. Every year at CES[®], we see the progress the industry is making in advancing this technology. We also see the roadblocks to this progress—mostly in the form of outdated government rules. The Department of Transportation has done a great job of doing its part to update its approach to allow for innovation, but we haven’t seen the same progress from Congress. CTA supported the SELF DRIVE Act and appreciates the leadership of

² <https://www.cta.tech/News/Press-Releases/2019/January/New-CTA-International-Ranking-Lists-16-Countries-L.aspx>

the House last session. We are hopeful the committee can again come together and advance legislation, this time moving it to the president's desk.

One challenge facing American progress on these technologies is the growing patchwork of laws and rules across the country. Thirty-seven states and the District of Columbia have enacted laws or issued executive orders relating to SDVs.³ Federal and state governments have different roles in the deployment of SDVs – and the expanding patchwork of local rules across the country will only delay SDV testing and hinder America's global leadership. We need a 'technology-neutral' approach to SDV rules to allow new innovators to enter the SDV sector, develop safer technologies and provide greater efficiencies.

CTA recommends the Committee address the following issues in a self-driving vehicles bill:

Rulemakings, including updating existing standards and setting new standards;

- The Federal Motor Vehicle Safety Standards (FMVSS) were created when the driving task was assumed to be performed by a human driver and, as a result, are typically drafted in a way that directly or indirectly refer to vehicle controls being operated by a human. Current FMVSS limit the ability to make significant changes to vehicle design, which can preclude truly innovative approaches to fully self-driving vehicles. NHTSA needs to evaluate the FMVSS and update outdated standards before SDVs can be deployed widely. We must retain flexibility for NHTSA to update existing FMVSS to allow for self-driving vehicles, create new FMVSS, or a combination of both options. Additionally, NHTSA will need to update its test procedures for certifying compliance in a world where humans are not always the direct operators. A timeline from NHTSA detailing what steps the industry will take when will be important for long term planning.

Federal, State and Local Roles and access to courts;

- The federal government's responsibility is vehicle safety and performance standards (FMVSS), recalls and issuing guidance for manufacturers to follow. State responsibilities are regulating insurance and liability, vehicle safety inspection, vehicle registration, human driver licensing requirements and enacting and enforcing traffic laws. Any legislation should follow this division of responsibility and ensure the federal government is solely responsible for regulating vehicle safety and performance standards.
- CTA opposes limiting the use of arbitration, a legal mechanism used to reduce the cost of litigation for both companies and consumers and provide more timely remedies for everyone involved in a dispute. There is no clear public policy reason to narrow it in the context of SDVs, and we should not make changes to the Federal Arbitration Act.

³ <https://www.ghsa.org/state-laws/issues/autonomous%20vehicles>

Testing Exemption Expansion;

- Expand eligibility of the FMVSS testing exemption created in the FAST Act (40 USC 30112) to provide parity among automobile manufacturers (OEMs), suppliers, manufacturers of ADS components, and developers of automated driving vehicles and automated driving systems (ADS).

Deployment Exemptions;

- NHTSA can exempt vehicles from existing FMVSS to allow for deployment of new vehicle designs and safety features, and for the limited sale of such vehicles. Exemptions are now available to vehicle manufacturers on only a temporary basis, typically two-to-three years, and only a small number (2500) of exemptions are available. Expanding NHTSA's exemption authority would allow manufacturers and other entities to gather the data they need to improve safety and performance, while preserving the agency's oversight authority through the terms and conditions of individual exemptions. The exemption process must be available to all petitioners (e.g., traditional OEMs, suppliers, tech companies, and new entrants) on a level playing field.