

Statement of Ted Leonard
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To the Joint Senate and House Transportation Committee Hearing
On Autonomous Vehicles
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Autonomous vehicle (AV) technology has the potential to improve safety, mobility and convenience for motorists. AAA supports the continued advancement of technologies leading to the development, testing and use of AV systems. Government and safety experts estimate that connected and automated vehicles could prevent up to 80 percent of today's crashes.

The terms "autonomous vehicles" and highly automated vehicles refer to not only fully self-driving cars but also a range of different technologies, some of which are already on the Commonwealth's roads. Vehicles equipped with adaptive cruise control, automatic emergency braking or lane keeping technologies are building bricks toward more advanced systems. The evolution of AVs will be gradual. Fully self-driving vehicles, operating without human interactions, are years away from being a common sight on our roadways. The process will take time, for a number of reasons, including: the development of the technology, the long turnover as consumers buy new cars (the average vehicle age is 11.5 years old); technical and human factors challenges; and the need to set insurance liability and appropriate laws. We will likely see a mix of vehicles with differing levels of automation on our roads for decades.

Consumer acceptance will be crucial to the successful deployment of AVs. A recent AAA survey found that three out of four U.S. drivers reported feeling "afraid" to ride in a fully self-driving car. Despite this significant fear, drivers who own vehicles equipped with semi-autonomous features were 75 percent more likely to trust the technology than those without it, suggesting that gradual experience with these advanced features may ease consumer fears. Among drivers who want AV technology in their vehicles, AAA found the primary motivation to be *safety* (84 percent), followed by *convenience* (64 percent), *reducing stress* (46 percent) and *wanting the latest technology* (30 percent). Businesses and government may bolster consumer acceptance and interest by maximizing transparency about AVs. This includes helping consumers better understand how they operate, their benefits and limitations and the various impacts on society.

As autonomous technology becomes more prevalent, AAA anticipates a number of long-term challenges to the automotive, legal and business environments, reparability, liability and ownership models. Current motor vehicle laws never envisioned a vehicle that can drive itself. If a vehicle causes a crash in autonomous mode who is liable – the "operator", the vehicle owner, their insurance company, the automaker that built the vehicle or the company that developed the AV software? Current driver training and education programs need to continue to keep pace with vehicle technology and include instruction on the operation and use of autonomous features. Looking forward, driver training providers will need to further educate in the skills necessary to operate AVs and interact with the specific vehicle's operation as they become more common.

Time and transparency will lead to trust and acceptance of autonomous vehicles.