



COMMENTS REGARDING HIGHLY AUTOMATED VEHICLE POLICIES IN PENNSYLVANIA

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Pennsylvania Joint Senate and House Transportation Committees
Hearing: Highly Automated Vehicles Testing Legislation

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Dear Chairman Rafferty and distinguished members of the Senate Transportation Committee:

Thank you for the opportunity to comment today. My name is Brent Skorup and I am a research fellow in the Technology Policy Program at the Mercatus Center at George Mason University. My colleagues and I have examined the policy issues surrounding autonomous vehicles,¹ and my comments here offer a brief summary of our findings. Preliminary estimates suggest that seemingly minor regulatory delays on the mass deployment of highly automated vehicles (HAVs) have dire social effects.² Overly cautious regulation is the primary policy risk and should be avoided.

The speed at which HAVs moved from DARPA-funded prize contests in the desert to picking up passengers on the winding streets of Pittsburgh has been remarkable. The US Department of Transportation's release of its much-anticipated guidelines signals that the public and state lawmakers need to prepare for wide use of HAVs.³ There are fortuitous advances in wireless technology and sensor technology that will make possible mass adoption of HAVs in our lifetimes.

1. Brent Skorup, "Driverless Cars Need Just One Thing: Futuristic Roads," *Backchannel*, October 10, 2016; Adam Thierer and Ryan Hagemann, "Removing Roadblocks to Intelligent Vehicles and Driverless Cars" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, 2014); Clifford Winston and Quentin Karpilow, "A New Route to Increasing Economic Growth: Reducing Highway Congestion with Autonomous Vehicles" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, 2017).

2. "If NHTSA's proposed premarket approval process slows the deployment of HAVs by 5 percent, we project an additional 15,500 fatalities over the course of the next 31 years." Adam Thierer and Caleb Watney, "Comment on the Federal Automated Vehicles Policy" (Public Interest Comment, submitted to the National Highway Traffic Safety Administration, NHTSA-2016-0090, Mercatus Center at George Mason University, Arlington, VA, November 2016), 10.

3. National Highway Traffic Safety Administration, *Federal Automated Vehicles Policy: Accelerating the Next Revolution in Roadway Safety*, September 2016.

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For the realization of mass HAV use, US roadways need to be retrofitted and adapted for HAVs. Just as lawmakers and city planners started laying asphalt, installing streetlights and speed limits, and zoning property to accommodate Henry Ford's cars, so also do roadways, infrastructure, and laws need to be designed with HAVs in mind.

It's welcome news that the state of Pennsylvania permits HAVs on its public roads. Proactive policies will help technology and auto companies test and develop HAVs. Legislative trailblazing in this area has its risks. Pennsylvania lawmakers should ensure that its HAV registration requirements and regulations are easily understood and that compliance is practical. A legal regime for HAVs that is prescriptive, vague, or burdensome will delay HAV development—and the immense social benefits of HAV adoption—perhaps indefinitely.

SOCIAL BENEFITS OF RAPID HAV ADOPTION

Much of the excitement and investment driving HAV development is the potential to save lives and prevent serious injuries. In a typical year, over 35,000 Americans die in auto accidents and millions are injured.⁴ Hopefully someday soon HAVs will eliminate the nearly one-third of auto deaths involving alcohol-impaired drivers.⁵

But HAVs will have benefits beyond safety. HAVs potentially improve many aspects of modern life. They reduce traffic, emissions,⁶ and urban sprawl, and they save millions of households from purchasing an expensive, depreciating asset—a car. A recent University of Texas study estimates that a single shared autonomous vehicle could replace around 11 privately owned vehicles.⁷

Liability insurance will likely change, and likely for the better. Thirty million drivers in the United States lack car insurance⁸ and millions more are underinsured. It appears likely that liability (and insurance premiums) will shift from individuals to HAV companies as HAVs deploy.⁹ This will reduce many social costs—like increased insurance claims and higher premiums—caused by uninsured and underinsured drivers.¹⁰

HAVs will improve quality of life for drivers who don't have (or shouldn't have) a driver's license. Drivers without a license are a problem across the country and strain local court systems. Judge Elizabeth A. Kobly of Youngstown, Ohio, Municipal Court, for instance, reports that "The No. 1 crime in the city of Youngstown is people driving without a license, absolutely without a doubt."¹¹ Many populations—the elderly, the disabled, and those with suspended or revoked licenses—are natural customers for HAVs in rural and suburban areas where public transportation is minimal.

CONCLUSION

As my colleague Adam Thierer and his coauthor Ryan Hagemann recommend, HAV experimentation and iterative deployments should be allowed.¹² Regulatory compliance should be predictable and the laws should be clear. Vague requirements or prescriptive laws requiring near-perfect HAV performance could delay HAVs for years. Policy should focus less on preventing rare, worst-case scenarios and more on enabling the widespread, best-case scenarios—here, life-saving deployment of HAVs to the general public.

We at the Mercatus Center look forward to being a continued resource for the committee in this important policy area.

4. Thierer and Hagemann, "Removing Roadblocks," 15.

5. Ibid.

6. Winston and Karpilow, "New Route to Increasing Economic Growth."

7. Daniel J. Fagnant and Kara M. Kockelman, "The Travel and Environmental Implications of Shared Autonomous Vehicles, Using Agent-Based Model Scenarios," *Transportation Research Part C* 40 (March 2014).

8. Caitlyn Bronson, "10 States with the Most Uninsured Motorists," *Insurance Business*, April 24, 2015.

9. Thierer and Hagemann, "Removing Roadblocks," 23–27.

10. Uninsured and underinsured drivers led to \$2.6 billion in insurance claims in 2012 alone and add billions of dollars to insured drivers' annual premiums. See Leslie Scism, "Uninsured-Driver Dilemma," *Wall Street Journal*, December 1, 2013.

11. Steve Wilaj, "Judge Says Driving without a License Is No. 1 Crime in Youngstown," *Vindicator*, September 3, 2013.

12. Thierer and Hagemann, "Removing Roadblocks."