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Testimony from:
Robert Melvin, Northeast Region Director, R Street Institute

Testimony in Support SB 949, "Vehicle Laws – Fully Autonomous Vehicles."

March 5, 2025

Senate Judicial Proceedings Committee

Chairman Smith and members of the committee,

My name is Robert Melvin, and I am the Northeast region director for the R Street Institute. The R Street Institute is a nonprofit, nonpartisan, public-policy research organization engaged in policy analysis and outreach to promote free markets and limited, effective government, including in the areas of technology and innovation policy. This is why we have an interest in Senate Bill 949.

SB 949 creates a regulatory framework for highly autonomous vehicles (AVs) in Maryland and authorizes their operation without a human driver provided that they comply with federal safety standards and state traffic laws. The bill also outlines legal responsibilities of autonomous vehicles, mandates the creation of law enforcement interaction plans, sanctions their use in transportation services, and precludes local jurisdictions from banning or regulating their operation. This critical measure will position Maryland as a leader in the cutting-edge autonomous vehicle industry while helping to address challenges facing its residents.

In Maryland, recent data has shown that fatal crashes have been increasing over the past several years, growing from 493 in 2019 to 573 such incidents in 2023.¹ There are a variety of factors that are causing this issue, but some of the primary offenders are human driving errors, such as drunk and aggressive driving, as well as distracted driving.² Traffic congestion is another issue plaguing drivers in the state, with surveys ranking Maryland 50th overall for gridlock.³ Traffic jams are also costing its drivers significant time and money, with overall amounts ranging between \$1,371 to \$2,465 depending on where they reside in the state.⁴ While there is no one-size-fits-all approach to addressing these challenges, SB 949 could help ameliorate these issues.

SB 949 would help bring regulatory clarity and consistency to autonomous vehicles in MD by establishing a foundation for AV operations. In doing so, it expands the choices available to consumers by permitting AVs on the roadways. Not only does it expand options for consumers, but it could save Maryland drivers money. Research has found that when AVs led human controlled vehicles that it resulted in a 42 percent decrease in fuel usage and eliminated stop-and-go traffic.⁵ In addition, it would help make roadways even safer.

Research from Swiss Re, a major reinsurer, reviewed liability claims from collisions for 25.3 million fully autonomous miles driven by AV robo-taxis. It demonstrated that AVs are drastically safer than human drivers, with an 88 percent decline in claims related to property damage and a 92 percent decrease in bodily injury claims.⁶ This suggests that AVs are 10.4 times safer than their human counterparts, with the safety rate of AVs doubling every five years.⁷ Most often, it turns out that human drivers are the primary culprit in the limited instances of crashes involving AVs.⁸

Moreover, data indicates that AVs had 62 percent fewer police reported crashes, 78 percent fewer injury causing crashes, and 81 percent fewer airbag deployments when compared to an average human driver.⁹ Considering that National Highway Traffic and Safety Administration data shows that accidents account for about \$23 billion in U.S. medical expenses, a 90 percent decline in collision rates would decrease costs by about \$20.7 billion annually.¹⁰ While roadway safety and improve traffic flow are important reasons for authorizing AV deployment in Maryland, there are also economic benefits that one also must consider.

SB 949 will be economically productive for Maryland. One report estimates that the AV market could create as many as 455,000 new jobs over the next 15 years across the United States, with approximately 190 jobs generated for every 1000 AVs on the roads.¹¹ Considering that the state is ranked as the 3rd best state for AI jobs, and the 6th most innovative state, this proposal could help strengthen those positions and attract additional investment.¹²

While there may be some hesitation from individuals, it is important to point out that this isn't some experimental technology. In fact, it's been extensively deployed in many states, and Maryland already authorizes the testing of this technology on its roadways.¹³ If this legislation is advanced, Maryland would join 25 other states that have sanctioned deployment of autonomous vehicles on its highways.¹⁴

In the end, SB 949 will help augment road safety, alleviate traffic congestion, and promote technological innovation and economic growth. For these reasons, we urge a favorable report of Senate Bill 949.

Thank you,

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¹ Maryland Department of Transportation, Motor Vehicle Administration, "Zero Deaths Maryland, Crash Summaries," Last accessed February 24, 2025. "<https://zerodeathsmd.gov/resources/crashdata/>."

² CDC, "Global Road Safety," May 16, 2024. <https://www.cdc.gov/transportation-safety/global/index.html>.

³ Michelle Queen, "Study: Maryland Has Worst Traffic Congestion in U.S.," My Montgomery Community Media, January 17, 2023. <https://www.mymcmedia.org/study-maryland-has-worst-traffic-congestion-in-u-s/#:~:text=Maryland%20ranked%2037th%20in%20the,fifth%20worst%20state%20for%20motorists>.

⁴ Alejandro Alvarez, "Highway congestion could be costing Maryland drivers thousands each year," WTOP News, May 2, 2023. <https://wtop.com/local/2023/05/highway-congestion-could-be-costing-maryland-drivers-thousands-each-year/>.

⁵ Alexandre M. Bayen, "Eliminating Traffic Jams with Self-Driving Cars," University of California at Berkeley, March 15, 2021. <https://ce.berkeley.edu/news/2537>.

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- ⁶ Luigi Di Lillo, et al., “Do Autonomous Drivers Outperform Latest-Generation Human-Driven Vehicles? A comparison to Waymo’s Auto Liability Insurance Claims at 25 million Miles,” Waymo, 2024. <https://waymo.com/research/do-autonomous-vehicles-outperform-latest-generation-human-driven-vehicles-25-million-miles/>.
- ⁷ Gale Pooley, “Waymo Drivers Are Way Safer (10x) Than Humans,” *Human Progress*, Jan. 7, 2025. <https://humanprogress.org/waymo-drivers-are-way-safer-10x-than-humans>.
- ⁸ Timothy B. Lee, “Human drivers are to blame for most serious Waymo collisions,” *Understanding AI*, Sept. 10, 2024. <https://www.understandingai.org/p/human-drivers-are-to-blame-for-most>.
- ⁹ Waymo, “Waymo Safety Impact: Waymo Driver Compared to Human Benchmarks,” Last accessed February 24, 2025. <https://waymo.com/safety/impact/>.
- ¹⁰ Kareem Othman, “Exploring the implications of autonomous vehicles: a comprehensive review,” Innovative Infrastructure Solutions, March 1, 2022. <https://pmc.ncbi.nlm.nih.gov/articles/PMC8885781/>.
- ¹¹ Chamber of Progress, “Opportunity AV: How Many and What Types of Jobs Will Be Created by Autonomous Vehicles?,” October 3, 2024. <https://progresschamber.org/wp-content/uploads/2024/03/Opportunity-AV-How-Many-and-What-Type-of-Jobs-Will-Be-Created-by-Autonomous-Vehicles.pdf>.
- ¹² Maryland Business Support, “Data Rankings, Innovation and Industry,” Last accessed February 24, 2025. <https://business.maryland.gov/ranking/?bj-ranking-topics%5B%5D=innovation-industry>.
- ¹³ Ariel Wolf, et al., “State Autonomous Vehicle Laws and Regulations,” Venable LLP, December 2024, <https://books.venable.com/Autonomous-Vehicles/4/>.
- ¹⁴ Ibid.