_HB 1447 Testimony (1).pdf Uploaded by: Delegate Jazz Lewis Position: FAV

JAZZ LEWIS

Legislative District 24

Prince George's County

MAJORITY WHIP

Appropriations Committee



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THE MARYLAND HOUSE OF DELEGATES Annapolis, Maryland 21401

Testimony of Delegate Jazz Lewis on Motor Vehicles - Autonomous Vehicles - Standards, Requirements, and Prohibited Acts

For the record, Delegate Jazz Lewis here to testify on my legislation, HB1447, which is a bill establishing that should autonomous vehicles be on our roads, then there must be a human driver behind the wheel of the vehicle who can step in should the self-driving car malfunction for any reason. This is a common-sense safety measure for this new and emerging technology; having someone who can step in, should the autonomous driving function fail, can prevent accidents, avoid injuries, and ultimately save lives.

This is especially important for commercial vehicles, self-driving semi-trucks could cause massive accidents on our road should their software fail. This is also an industry that could see massive job losses if we move from human drivers to this still-developing technology. Putting truck drivers out of good-paying jobs that their families depend on without any alternatives when companies decide that they would prefer to have automated vehicles. This legislation ensures that we have licensed professionals who are equipped to respond in case of emergencies should an autonomous truck malfunction or respond poorly to any number of traffic situations.

But this bill is not just about preserving the jobs of hardworking Marylanders; it is about traffic safety. This new and emerging vehicle is still developing, and companies are still struggling to make these vehicles work in normal traffic situations. I have attached for the committee's awareness a list of incidents from across the country that serve as examples of the dangers that these vehicles can be to pedestrians, and other drivers. Mandating that a licensed driver be present to avoid any collisions ensures there is an additional safeguard in place.

For the record, I am not here to oppose autonomous vehicles outright. But I have deep concerns that I am sure I share with many in this room and beyond, with sharing the

road with a technology that is still being tested by having AV's use our neighborhood roads and state highways as testing grounds. We should not let our enthusiasm for something new and innovative get in the way of basic safety measures that can protect lives, especially when it comes to commercial vehicles that have a higher likelihood of deadly accidents simply due to their size and weight. Not only will self-driving commercial vehicles put thousands out of their jobs, but it will make us less safe if we take these professionals out of their trucks and off the roads.

We are working on amendments to the bill to ensure that this bill is specifically confined to commercial autonomous vehicles, which we think makes this more directed to those vehicles that pose a greater public safety risk as well as protecting jobs for hard-working Marylanders. I will be happy to provide these amendments to the committee when they are ready.

This legislation is about preserving public safety by having some commonsense guardrails for a still-developing technology that could have massive implications for all of us who commute by car. Ensuring we do not let new and emerging technology throw thousands out of work while unnecessarily putting Maryland drivers at risk.

thousands out of work while unnecessarily putting Maryland drivers at risk.
Thank you and for these reasons I urge a favorable report.

With best,

Delegate Jazz Lewis

Resources:

As AV technology has developed, there have been many deeply concerning incidents of these vehicles threatening public safety and have shown that self-driving cars are simply not ready to be sharing the roads without a human safety operator in the vehicle.

- Waymo autonomous vehicle hits bicyclist in San Francisio. <u>Link Here</u>
- Federal regulators open investigation into GM self-driving car subsidiary Cruise.
 Link Here
- Cruise's driverless car accident underlines the risks of AI. <u>Link Here</u>
- Self-driving car company Waymo issues first-ever recall after two Phoenix crashes. <u>Link Here</u>
- Self-driving Cruise vehicle accused of nearly hitting kids in two separate close calls one day apart. <u>Link Here</u>
- Cruise offers to pay \$112K in fines over allegations it misled regulators about driverless car. <u>Link Here</u>
- Report: Tesla autopilot involved in 736 crashes since 2019. Link Here
- US regulators investigate GM's Cruise division over incidents involving pedestrians in roadways. <u>Link Here</u>
- Cruise stops all driverless taxi operations in the United States. Link Here
- How many Waymo, Cruise driverless cars have crashed? Link Here
- US probing Virginia fatal crash involving Tesla suspected of running automated driving system. <u>Link Here</u>
- Automated car company planning to launch in Dallas has self-driving permit revoked in California. <u>Link Here</u>
- GM's Cruise recalling 950 driverless cars after pedestrian dragged in crash. <u>Link</u> here
- The final 11 seconds of a fatal Tesla Autopilot crash. Link Here

HB 1447 - Motor Vehicles - Autonomous Vehicles - S

Uploaded by: Donna Edwards

Position: FAV



MARYLAND STATE & D.C. AFL-CIO

AFFILIATED WITH NATIONAL AFL-CIO

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President

Secretary-Treasurer

Donna S. Edwards

Gerald W. Jackson

HB 1447 - Motor Vehicles - Autonomous Vehicles - Standards, Requirements, and Prohibited Acts House Environment and Transportation Committee March 7, 2024

SUPPORT

Donna S. Edwards President Maryland State and DC AFL-CIO

Chairman and members of the Committee, thank you for the opportunity to submit testimony in support of HB 1447. My name is Donna S. Edwards, and I am the President of the Maryland State and District of Columbia AFL-CIO. On behalf of Maryland's 300,000 union members, I offer the following comments.

HB 1447 requires that any autonomous vehicle operating in the state of Maryland has a human seated in the front seat that is capable and licensed to operate that vehicle. It also requires that the vehicle is designed to allow humans to take control of the operations of the vehicle.

Autonomous vehicles are not safe to operate on Maryland's roads without protections for pedestrians, roadworkers, drivers, and passengers. Over the last decade autonomous vehicle companies have used public roads, built with taxpayer money, as their own laboratories.

2016 was the first year that an autonomous vehicle was involved in a fatal crash. Since then media outlets routinely cover accidents and crashes involving autonomous vehicles. Self driving cars have driven through crime scenes¹, created massive traffic jams², and even run over pedestrians prompting a recall of 950 autonomous vehicles.³ The National Transportation Safety Board even noted, "Recently, some companies have started testing without a safety driver in the vehicle. Because the National Highway Transportation Safety Administration—the regulatory agency responsible for ensuring vehicle safety—has not established performance measures and testing standards for automated vehicles, individual manufacturers create their testing requirements. This creates an inconsistent level of testing on our roadways, that is not verified, and potentially hazardous."

We urge a favorable report on HB 1447.

-

¹ KVTU Staff. "Self-driving car blocks police responding to San Francisco shooting." Fox KVTU. June 11, 2023.

² Jordan Valinsky, "Complete meltdown': Driverless cars in San Francisco stall causing a traffic jam." CNN Business. August 14, 2023.

³ Andrew Hawkins, "Cruise is recalling 950 driverless cars after one of its vehicles ran over a pedestrian." The Verge. November 8, 2023.

Teamsters HB 1477 Written Testimony.pdf Uploaded by: John Mataya

Position: FAV

INTERNATIONAL BROTHERHOOD OF TEAMSTERS

SEAN M. O'BRIEN

General President

25 Louisiana Avenue, NW Washington, DC 20001



FRED E. ZUCKERMAN

General Secretary-Treasurer 202-624-6800 www.teamster.org

March 7, 2024

Maryland House of Delegates Environment and Transportation Committee Room 251 House Office Building Annapolis, MD 21401

Chair Korman and Members of the Committee:

The International Brotherhood of Teamsters is pleased to support HB 1447 and applauds the Environment and Transportation Committee of the Maryland House of Delegates for giving this critically needed legislation a hearing today.

For years now, big tech companies and venture capital firms have invested millions of dollars in autonomous vehicle and truck platooning technology. As investors lose patience in the lack of progress, companies are getting more desperate to turn a profit and have been working to gain access to public roadways through legislative and regulatory means.

While these companies flood the airwaves marketing their product's alleged safety and efficiency, states and localities that have allowed these vehicles to operate on public roads have learned that these products are failing to live up to the companies' promises. In advertisements and in public testimony, many AV companies will claim that their vehicles are safe and that they have millions of miles worth of data to prove their case, yet these companies <u>refuse to release</u> this data to regulators or the public.

Driverless Vehicles Causing Accidents, Blocking Traffic, and Dragging Pedestrians

We know from news reports that autonomous vehicles routinely fail to obey traffic laws, and are <u>causing accidents</u>ⁱⁱ, <u>blocking traffic en masse</u>ⁱⁱⁱ, and in one disturbing case, <u>pinning an injured pedestrian</u>^{iv} under the vehicle and <u>dragging her an additional 20-feet</u>. When questioned by state regulators, the company <u>failed to disclose</u>^{vi} the entire video of the accident, leading to the company's license being suspended and the company ultimately <u>suspending all operations</u>^{vii} nationwide to "rebuild public trust". Additional internal documents also show that the company knew their technology had <u>difficulty recognizing children</u>^{viii}, yet they decided to keep the vehicles on the road.

Driverless Vehicles Causing Issues and Crashes with First Responders

The San Francisco Country Transportation Authority (SFCTA) has gone on record with multiple examples of autonomous vehicles blocking emergency vehicles, stopping for no apparent reason, and recklessly interfering with active emergency scenes. In one case, firefighters were unable to stop the vehicle until they broke its windshield, while in another case, a vehicle ran over active firehoses that were being used to suppress a fire. In another, San Francisco firefighters reported that two Cruise robotaxis delayed an ambulance transporting a patient with critical injuries; that patient later died at the hospital. The issue is not unique to San Francisco – records indicate that first responders in Austin are having the same issues, putting the public at risk. Those who use our roads each and every day are becoming more aware of these failures, and they are not okay with being non-consenting test subjects for the autonomous vehicle industry.

Teamsters Respond with Commonsense Proposals, Human Safety Operators

In response to these threats to public safety, the <u>Teamsters are leading the charge^{xii}</u> for the creation of a legislative path forward that can deploy autonomous vehicle technology in a safer and more responsible manner. One of our major policy positions is simple -- any autonomous commercial vehicle must have a human operator, properly licensed for that size of vehicle, physically present behind the wheel. This human operator can take over in the event of a technology failure and can recognize and react to complex scenarios that computer programming has proven incapable of. As the SFCTA states in the letter linked above: "If a human driver had made an error like the one reflected here, it likely would have caused minimal passenger impact."

The coalition of support for legislation that requires a human operator is a diverse and growing population; from firefighters and nurses to law enforcement officers and professional drivers, workers across the nation have stood up to demand that their lawmakers put public safety first. Lawmakers of all political stripes have responded to this call and bills similar to HB 1447 have seen bipartisan support in places like California, Indiana, Nebraska, Texas, and more.

Legislation like HB 1447 is not a barrier to new technological developments; it is an added layer of safety that will allow all of us to fully explore and examine any potential benefits or risks that may arise as autonomous vehicle technology becomes more common – both in the public safety and the workforce space. Given the industry's recent track record and the growing concern from lawmakers across the country, it's not surprising that investment capital into autonomous vehicle development dropped nearly 60% from 2021 to 2022.

The Teamsters urge you to consider this reasonable legislative response to the current problems that autonomous vehicle technology is causing. The concerns of the public regarding this technology are justified, and the rocky track record of these vehicles shows that the technology is not ready for full deployment on our roads. We applaud Delegate Lewis for his leadership on this issue and look forward to working with the entire House of Delegates as you consider this legislation. If you would like to learn more about the Teamsters' position on autonomous vehicle technology, please do not hesitate us.

John Mataya State Legislative Director International Brotherhood of Teamsters

documents/2023/01/2023.01.25 ccsf 23.0125 cpuc cruise tier 2 advice letter protest 002.pdf

¹ https://www.latimes.com/business/story/2022-01-28/waymo-robot-taxi-sues-state-secret-black-ice

ii https://www.cnbc.com/2023/08/18/cruise-self-driving-car-in-san-francisco-fire-truck-crash-one-injured.html

iii https://sfstandard.com/2023/08/13/cruise-north-beach-stalled-robotaxis-aaron-peskin/

iv https://www.sfchronicle.com/bayarea/article/woman-run-autonomous-vehicle-san-francisco-18403044.php

v https://www.wired.com/story/cruise-robotaxi-self-driving-permit-revoked-california/

vi https://sfstandard.com/2023/10/24/cruise-robotaxi-dmv-suspension-video/

vii https://www.nytimes.com/2023/11/03/technology/cruise-general-motors-self-driving-cars.html

viii https://theintercept.com/2023/11/06/cruise-self-driving-cars-children/

ix https://www.sfmta.com/sites/default/files/reports-and-

^{*} https://www.theguardian.com/us-news/2023/sep/05/san-francisco-cruise-robotaxi-death-ambulance

 $[\]frac{xi}{https://www.kut.org/transportation/2023-10-30/records-show-first-responders-in-austin-struggling-to-respond-to-cruises-self-driving-cars}$

xii https://teamster.org/2023/09/teamsters-release-av-policy-framework/

xiii https://www.forbes.com/sites/johnkoetsier/2023/04/19/self-driving-investment-crash-58-drop-in-autonomous-vehicle-dollars/?sh=628f11f62d67

TeamstersLocal453_HB_1447_FAVUploaded by: Lawrence Wolfe, Jr.

Position: FAV

TEAMSTERS JOINT COUNCIL No. 62

AFFILIATED WITH THE

INTERNATIONAL BROTHERHOOD OF TEAMSTERS

Phone (410) 566-5700 Fax: (410) 566-1485

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March 4, 2024

Maryland House of Delegates Environment and Transportation Committee Room 251 House Office Building Annapolis, MD 21401

Chair Korman and Members of the Committee:

The members of Teamsters Joint Council 62 urge you to stand up for public safety supporting HB 1447.

Big Tech and the corporations that invest in driverless vehicles repeatedly tell us that their technology is safe and reliable, yet they refuse to provide the public and lawmakers with the data and information on the safety of their products. We know that crashes are occurring and that deaths, injuries, and the destruction of property have been caused by failures in autonomous driving technology. In cities like San Francisco, where fully driverless vehicles have been operating, there have been numerous incidents of these vehicles colliding with firetrucks that had their lights/sirens activated, interfering with police officers at crime scenes and traffic stops, blocking sanitation workers, creating gridlock traffic, and in one case, dragging a pedestrian over 20 feet before stopping. The one similarity to nearly every above issue is that a human operator would have avoided or mitigated the damage done.

Sponsored by Delegate Lewis, HB 1447 will require that any autonomous vehicle operating in the state of Maryland must have a human seated in the front seat who is properly licensed to operate the size and class of said vehicle. The vehicle must have the equipment necessary for the person in the front seat to take control of the vehicle in case of a failure in the autonomous technology. The general public is protected from a worst-case scenario by having a human being present who is able to regain control of a vehicle, safely assess a situation, and provide aid if necessary in the event of a failure in the vehicle's autonomous driving technology.

The citizens of Maryland should not be the lab rats profit-chasing corporations who test their unproven technology on our streets. This bill creates a failsafe solution that will protect pedestrians, first responders, roadside workers, and pedestrians – we urge you to vote 'yes' on HB 1447 when it comes before the Environment and Transportation Committee.

Respectfully,

Sean Cedenio President Lawrence A. Wolfe Jr. Legislative Representative

HB_1447_FAV_LateTestimony_TeamstersLocal992 Uploaded by: Tom Krause

Position: FAV

GENERAL TEAMSTERS AND ALLIED WORKERS

Tom W. Krause Secretary-Treasurer Principal Executive Officer



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LOCAL 992

Affiliated With INTERNATIONAL BROTHERHOOD OF TEAMSTERS and JOINT COUNCIL 62

March 4, 2024

Maryland House of Delegates Environment and Transportation Committee Room 251 House Office Building Annapolis, MD 21401

Chair Korman and Members of the Committee:

The members of Teamsters Local 992 urge you to stand up for public safety by supporting HB 1447.

Big Tech and the corporations that invest in driverless vehicles repeatedly tell us that their technology is safe and reliable, yet they refuse to provide the public and lawmakers with the data and information on the safety of their products. We know that crashes are occurring and that deaths, injuries, and the destruction of property have been caused by failures in autonomous driving technology. In cities like San Francisco, where fully driverless vehicles have been operating, there have been numerous incidents of these vehicles colliding with firetrucks that had their lights/sirens activated, interfering with police officers at crime scenes and traffic stops, blocking sanitation workers, creating gridlock traffic, and in one case, dragging a pedestrian over 20 feet before stopping. The one similarity to every above issue is that a human operator would have avoided or mitigated the damage done.

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Maryland House of Delegates March 4, 2024 Page Two (2)

take control of the vehicle in case of a failure in the autonomous technology. The public is protected from a worst-case scenario by having a human being present who can regain control of a vehicle, safely assess a situation, and provide aid, if necessary, in the event of a failure in the vehicle's autonomous driving technology.

The citizens of Maryland should not be the lab rats' profit-chasing corporations who test their unproven technology on our streets. This bill creates a failsafe solution that will protect pedestrians, first responders, roadside workers, and pedestrians – we urge you to vote 'yes' on HB 1447 when it comes before the Environment and Transportation Committee.

Respectfully,

Teamsters Local Union No. 992

Tom Krause

Secretary-Treasurer

Cc: File

HB_1447_FAV_LateTestimony_TeamstersLocal639 Uploaded by: William Davis

Position: FAV

TERS LOCAL 639

Affiliated With The International Brotherhood of Teamsters Representing members in the following industries; Drivers, Chauffeurs and Helpers, Dairy Delivery and Plant Processing, Law Enforcement, Public Employees, Bakery,

Laundry and Allied Sales Drivers, Health Care Workers, Housekeeping and Laundry Aides, Gaming Industry and Casino Employees, Washington, D.C. and Metropolitan Area

March 4, 2024

Maryland House of Delegates Environment and Transportation Committee Room 251 House Office Building Annapolis, MD 21401

Chair Korman and Members of the Committee:

The members of Teamsters Local 639 urge you to stand up for public safety supporting HB 1447. Big Tech and the corporations that invest in driverless vehicles repeatedly tell us that their technology is safe and reliable, yet they refuse to provide the public and lawmakers with the data and information on the safety of their products. We know that crashes are occurring and that deaths, injuries, and the destruction of property have been caused by failures in autonomous driving technology. In cities like San Francisco, where fully driverless vehicles have been operating, there have been numerous incidents of these vehicles colliding with firetrucks that had their lights/sirens activated, interfering with police officers at crime scenes and traffic stops, blocking sanitation workers, creating gridlock traffic, and in one case, dragging a pedestrian over 20 feet before stopping. The one similarity to nearly every above issue is that a human operator would have avoided or mitigated the damage done.

Sponsored by Delegate Lewis, HB 1447 will require that any autonomous vehicle operating in the state of Maryland must have a human seated in the front seat who is properly licensed to operate the size and class of said vehicle. The vehicle must have the equipment necessary for the person in the front seat to take control of the vehicle in case of a failure in the autonomous technology. The general public is protected from a worst-case scenario by having a human being present who is able to regain control of a vehicle, safely assess a situation, and provide aid if necessary in the event of a failure in the vehicle's autonomous driving technology.

The citizens of Maryland should not be the lab rats profit-chasing corporations who test their unproven technology on our streets. This bill creates a failsafe solution that will protect pedestrians, first responders, roadside workers, and pedestrians – we urge you to vote 'yes' on HB 1447 when it comes before the Environment and Transportation Committee.

Respectfully,

William Davis/sk

William Davis
President, Teamsters Local 639

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HB 1447 AV Stnadards . E & T 030724 SWA JPR 0206

Uploaded by: Nancy Egan

Position: FWA



Testimony of

American Property Casualty Insurance Association (APCIA)

House Environment & Transportation Committee

House Bill 1447- Autonomous Vehicles - Standards, Requirements, and Prohibited Acts

March 7, 2024

Support with Amendments

The American Property Casualty Insurance Association (APCIA) is a national trade organization whose members write approximately 55.2.% of the personal auto insurance market and 75.7% of the commercial auto insurance market in Maryland. We appreciate the opportunity to provide written comments on House Bill 1447.

House bill 1447 allows the operation on Maryland roads of "fully autonomous" vehicles, capable of performing the entire driving operation, but must have a licensed driver in the front seat, and all state and federal vehicle requirements are met. Notably, it prohibits transporting passengers for commercial purposes. As for insurance, it references the FR minimums. And it leaves the rest up to the department to adopt regulations.

APCIA is concerned as the bill does not address contain a separate and distinct insurance requirement for the manufacture of the automated driving system, who will increasingly be brought into claims involving automated driving system equipped car. Because product liability issues are likely to become more common in auto accident claims handling, it is also appropriate to require manufacturers to prove financial responsibility to state transportation regulators, prior to testing or deployment of vehicles with automated driving systems.

APCIA suggests the following amendment language for the Committee's consideration:

One line 9 after ARTICLE delete AND

On line 11 on page 3 after ARTICLE delete (.) and insert; AND

\$5,000,000 GENERAL LIABILITY INSURANCE REQUIREMENT INCLUDING PRODUCT LIABILITY PROVIDED BY THE MANUFACTURERS OF THE AUTOMATED DRIVING SYSTEM.

With these amendments, APCIA urges the Committee to provide a favorable report on House Bill 1447.

Nancy J. Egan,

State Government Relations Counsel, DC, DE, MD, VA, WV

Nancy.egan@APCIA.org Cell: 443-841-4174

HB 1447 AV Testimony.pdf Uploaded by: Alain Xiong-Calmes Position: UNF



Testimony of Alain Xiong-Calmes

Director of State and Local Government Relations, Northeast US

Chamber of Progress

Re: HB 1447

March 6, 2024

Re: OPPOSE House Bill 1447: Autonomous Vehicles

Dear Chair Korman and members of the committee,

On behalf of Chamber of Progress, a tech industry coalition promoting technology's progressive future, I write to urge you to **oppose HB 1447.**

We are strong supporters of autonomous vehicles because of their potential to save hundreds of thousands of lives and benefit our communities – promoting sustainability, mitigating transit and food accessibility gaps, and increasing mobility for the elderly and disabled.

Autonomous vehicles will bring safer streets and reduce the number of accidents. The National Highway Traffic Safety Association (NHTSA) released crash data reporting nearly 43,000 lives were lost in traffic-related fatalities in 2022. Between 2019 and 2021, traffic deaths and fatalities in the United States rose by 17.5 percent - the largest two-year increase since World War II. In 2023 alone, there were 600 traffic fatalities in Maryland, a 6% increase from the previous year. More than a third of those fatal crashes involved distracted driving.

Distracted driving, drunk and impaired driving, speeding, and failing to wear a seatbelt remain the leading causes of death on American roads.⁴ But AVs never

¹https://www.nhtsa.gov/press-releases/traffic-crash-death-estimates-2022#:~:text=The%20National%20Highway%20Traffic%20Safety.42%2C939%20fatalities%20reported%20for%202021.

https://www.nytimes.com/2022/02/15/briefing/vehicle-crashes-deaths-pandemic.html

³https://www.wusa9.com/article/news/local/maryland/600-deaths-maryland-roads-2023/65-b30b0933-a6e7-43ad-85fb-90314cf71e36

⁴ https://madd.org/press-release/epidemic-plaguing-americas-roads-reaches-historic-levels/c

drive distracted, drunk, or fatigued. And their safety record is impeccable. In fact, a recently published study found that autonomous ridesharing services in Los Angeles, San Francisco, and Phoenix experienced 57% fewer police-reported crashes and 85% fewer crashes involving injuries compared to human drivers.⁵

Autonomous vehicles promote sustainability efforts. Through high-speed driving, braking, and re-acceleration, humans burn a lot of gas and energy while driving. According to the Southwest Research Institute, through connectivity and automation, AVs can reach 20% improvement in fuel efficiency. Since AVs are programmed to follow traffic rules and speed limits, they will ultimately burn less gas and energy. Deploying autonomous vehicles can help Maryland reach its goal of achieving 50% renewable energy by 2030.

Autonomous vehicles are also popular with voters. A survey commissioned by Chamber of Progress found that 53% of voters are ready to ride in an AV now or in the next five years, and the same number supported the testing and deployment of AVs in their state. Union members also overwhelmingly support the deployment of AVs, with 75% of respondents saying they supported testing AVs in their state. In San Francisco, in the month after they were opened to the public, autonomous rideshare services logged over 36,000 paid trips. Voters and consumers are excited about the possibilities of autonomous vehicles.

HB 1447 would deny these benefits to Maryland residents. By requiring a licensed driver to be in the front seat during all trips, HB 1447 ignores the safety record of autonomous vehicles and the rigorous testing this technology must go through before being deployed on public roads. AV operators must demonstrate to state and federal agencies that their vehicles meet safety standards.¹¹

Before deploying in a new city, AV operators also meticulously test their technology on closed courses and map the streets in detail to ensure the vehicles respond correctly to real-time road conditions. Banning the commercial use of

<u>https://waymo.com/blog/2023/12/waymo-significantly-outperforms-comparable-human-benchmarks-over-7-million/</u>

⁶ https://greenerideal.com/news/vehicles/driverless-cars-environmental-benefits/

^Ihttps://www.swri.org/press-release/vehicle-fuel-efficiency-improvement-connectivity-automation-arpa-e-nextcar

⁸ https://cleanchoiceenergy.com/news/renewable-energy-in-maryland

https://progresschamber.org/morning-consult-poll-dems-biden-voters-union-members-support-autonomous-vehicles/

¹⁰ https://www.sfchronicle.com/sf/article/cruise-waymo-san-francisco-18472568.php

¹¹https://www.nhtsa.gov/sites/nhtsa.gov/files/2022-03/Final-Rule-Occupant-Protection-Amendment-Automated-Vehicles.pdf

these vehicles on highways, even after they have demonstrated their safety through these tests, is unnecessary and would block the deployment of life-saving technology.

To increase transportation options, promote sustainable transportation, and make Maryland roads safer, **I urge you to oppose this bill.**

Thank you,

Alain Xiong-Calmes
Director of State and Local Government Relations, Northeast US

HB1447_FORTERRA_UNFUploaded by: Don Lefeve

Position: UNF



March 5, 2024

The Honorable Marc Korman Chairman, House Environment & Transportation Committee Room 251 House Office Building Annapolis, Maryland 21401

Re: HB 1447 Motor Vehicles – Autonomous Vehicles – Standards, Requirements, and

Prohibited Acts

Hearing Date: March 7, 2024 Position: Oppose

Chairman Korman, Vice-Chair Boyce, and members of the committee,

Forterra (formerly Robotic Research or "RRAI") is a Maryland based autonomous technology company who has proudly called Montgomery County home for 22 years. We are a leader in autonomous technology and while our business is currently focused on off-highway operations, we fully support the continued development and use of automated systems on all public roads for all (commercial and non-commercial) purposes. Accordingly, Forterra strongly opposes HB 1447.

As drafted, HB 1447 would prohibit anyone from operating a fully autonomous vehicle to transport passengers unless the operation is for personal and noncommercial purposes.

We strongly oppose this portion of the bill because it will not and does not improve road safety and serves to not only stifle innovation and continued development of automated systems, but to also deprive Maryland, its citizens and visitors from the full potential benefits created by automated driving systems.

As noted by NHTSA, vehicle safety promises to be one of automation's biggest benefits: helping to protect drivers and passengers, as well as bicyclists and pedestrians. Reducing the number of motor vehicle related accidents not only has a direct positive impact on human lives but will also significantly reduce the costs associated with these accidents. In addition, AVs stand to have transformative societal and environmental benefits. Automated driving systems could increase mobility of seniors, people with disabilities and expand transportation for underrepresented communities. From an environmental perspective, vehicle automation will potentially change the need for individualized parking spaces and lots, with increased use of automated ride share and shuttle fleets, which could dramatically transform land use and drive reductions of air pollutants from the transport sector. These are just some of the potential use cases and benefits associated with the transportation of passengers for commercial purposes- all of which will fail to be realized if HB 1447 is passed.

HB 1447 also prohibits the operation of a fully autonomous vehicle, "including for the transportation of goods" *unless* there is a person seated in the front seat of the vehicle while the AV is in motion. Requiring a human to be present in the front seat is more about the fear of potential job loss than safety. If the State is going to regulate automated driving systems, it should focus on the safety requirements that must be met to allow for the use of various levels of automated driving systems, including "driverless" operations. An outcome-based

approach focused on safety rather than a rigid, prescriptive directive on AV operations gives companies the freedom to innovate and incentivizes them to continue to invest in and further develop technology that will positively and substantially transform the way we live.

Instead of dictating how AVs can operate, the State and any legislation it enacts, should work with, and encourage AV companies to prove out the safety case for their technology and proposed use. Different companies may propose different ways to ensure safe, autonomous operations. Some may always require the presence of an in-vehicle operator. Some may provide for humans to oversee the AV through remote operations or otherwise create technology that is so far superior to human operations that no human intervention is needed. The key is to encourage industry to innovate, develop, and ultimately drive the continued advancement of this rapidly emerging technology. Do not let HB 1447 stifle innovation by mandating a person be in the vehicle at all times.

Autonomous technology companies spend a painstaking amount of time and money proving their "safety case." The safety case is a rigorous analysis which involves extensive testing all based on internationally recognized standards. A successful safety case shows, through large amounts of data, how the autonomous system produces repeatable results that are safer than humans. Safe operation backed by extensive data must be achieved before a human can be removed from any aspect of vehicle operation.

Each year, roughly 40,000 Americans are killed in traffic accidents, and many more Americans suffer non-fatal but extensive injuries. Accidents will continue to happen, but we can and should use technology in the pursuit of total elimination of all traffic accidents, especially when such technology can, in addition to saving lives, preventing injuries, and reducing costs associated with car accidents, also lessen traffic, cut down on negative environmental impact, and create independence among people who cannot drive.

The current legislation will only slow down the pace of technology, preventing Maryland, its citizens, and visitors from fully reaping its benefits. Nothing in this bill is aimed at stemming the tide of traffic accidents and fatalities. This legislation arbitrarily requires a person be in the vehicle while operating autonomously for commercial purposes. Safe operations is a required outcome. Companies should have greater license to determine how that outcome is achieved. In addition, HB1447 draws the arbitrary distinction between vehicles used for personal, non-commercial reasons and those for commercial uses. Road and vehicle safety is paramount regardless of whether they are being used for commercial or noncommercial purposes. The roads are shared by all.

For the reasons stated, we are opposed to this legislation.

Sincerely,

Don Lefeve,

Vice President, Corporate Affairs

testimony2024hb1447ltr.pdf Uploaded by: Franz Schneiderman Position: UNF





13900 Laurel Lakes Avenue, Suite 100 Laurel, MD 20707

March 7, 2024

Testimony to the House Environment and Transportation Committee HB 1447 – Motor Vehicles – Autonomous Vehicles – Standards, Requirements and Prohibited Acts Position: UNFAVORABLE

The Honorable Mark Korman
Environment and Transportation Committee
Room 251, House Office Building
Annapolis, MD 21401
cc: Members, Environment and Transportation Committee

Honorable Chair Korman and Members of the Committee:

I'm a consumer advocate and Executive Director of Consumer Auto, a nonprofit group that works to protect Maryland consumers and secure safety, transparency, and fair treatment for Maryland drivers and car buyers.

We oppose **HB 1447** because it would put Marylanders at unnecessary risk by authorizing the private use of autonomous vehicles on Maryland highways – at a time when that technology is really not safe, not properly regulated, and not ready for public roads. While the bill would require, among other stipulations, that AVs on MD roads meet federal safety regulations, that offers little reason to be confident they will be safe – as federal regulators are yet to establish clear or rigorous safety standards – or really any meaningful safety standards – for this nascent technology.

Indeed, in May 2023, Jennifer Homendy, the chair of the National Transportation Safety Board lamented that, "The federal government isn't doing their job in that area... The NTSB has called on regulators to set performance minimums for these features [AVs], to test vehicles rigorously against those standards and provide the results to consumers. But we're still waiting." At this point, regulators are still working to establish standards for collecting and comparing data needed to assess if AVs operate safely²; meaningful federal safety standards are still a distant hope.

At the same time, many recent uses of this kind of technology have only added to safety concerns. In December, Tesla announced a recall of more than 2 million cars equipped with its now-infamous "Autopilot" driver-assistance system after at least 17 fatalities and more than 700 crashes involving the system had been reported since 2019.³ Even after it conducted an over-the-air update to the system, safety advocates who've reviewed how the cars now work do not believe it operates safely.⁴ While "Autopilot" isn't a true AV system (despite its misleading name), the system allows many drivers to use it as if it were – and the results have often been tragic.

In California, several companies have been operating AV robotaxis on the streets of some cities – and the results have been deeply troubling. GM-owned Cruise lost its permit to operate in the wake

¹ https://www.cnn.com/2023/05/06/business/ntsb-automatic-driving-safety/index.html

² https://www.ntsb.gov/news/press-releases/Pages/NR20220615.aspx

³ https://www.ntsb.gov/news/press-releases/Pages/NR20220615.aspx

⁴ https://www.washingtonpost.com/technology/2023/12/31/tesla-autopilot-recall-test/

Auto Consumer Alliance



13900 Laurel Lakes Avenue, Suite 100 Laurel, MD 20707

of a gruesome accident in October in which one of its robotaxis hit a pedestrian and, after a pause, kept moving, dragging the woman 20 feet or more and leaving her hospitalized. ⁵ Waymo continues to operate in the Bay Area despite extensive controversy about streets blocked by AVs that stop in the roads and can't readily be moved, often causing traffic gridlock, blocking emergency vehicles, and prompting anger from citizens and fire officials alike. On Chinese New Year in February, one stalled Waymo in Chinatown was even torched by an angry crowd. ⁶

In light of such problems, it's not surprising that 68% of Americans told AAA last year that they are outright afraid of self-driving vehicles (up from 55% in 2022) while just 9% said they trusted the technology. ⁷

To this point, Maryland has properly moved slowly on this unproven technology. While MDOT has articulated a "Vision for Connected and Automated Vehicles" and the state passed legislation last year that authorizes limited conversions of vehicles into AVs, mostly for off-road commercial and industrial uses (SB 685), the state has not acted to authorize widespread private use of AVs on public roads.

HB 1447 would change that equation by allowing someone to operate "a fully autonomous vehicle with the automated driving system engaged" on a MD highway. The bill's safety provisions are fairly modest – requiring that that the person have a driver's license, is seated in the front seat (it doesn't even require it to be the driver's seat), that the vehicle complies with state regulations and federal safety standards, and be driven for personal (not commercial) use.

Unfortunately, those stipulations offer little assurance of safety. As noted above, no system of federal regulations to ensure AV safety yet exists. And experience with driver-assistance systems like Autopilot (which asks drivers to be seated in the driver's seat and attentive) has shown that having a semi-engaged back-up driver in the front seat does little to improve safety – because that person is unlikely to be able to respond quickly enough to respond to a serious safety issue.

Until or unless we have clear data that shows AVs are safe and a regulatory framework in place to help us make sure they operate responsibly, Maryland need not and should not allow an unlimited number of such vehicles on our roads. Moving to allow their widespread use before we have either of those safeguards in place -- as **HB 1447** would do – would, I fear, expose Maryland drivers to serious and unnecessary risks.

We oppose HB 1447 and ask you to give it an UNFAVORABLE report. Sincerely,
Franz Schneiderman
Consumer Auto

 $^{^{5}\} https://www.latimes.com/business/story/2023-10-26/cruise-robotaxi-dragged-injured-woman-misled-reporters$

⁶ https://www.reuters.com/business/autos-transportation/san-francisco-waymo-arson-sparks-fresh-debate-self-driving-cars-2024-02-13/

⁷ https://info.oregon.aaa.com/aaa-fear-of-self-driving-cars-on-the-rise/

Shirek_UNF_NFB_HB_1447 Uploaded by: Jessie Shirek

Position: UNF

Delegates of the Maryland General assembly,

My name is Jesse Shirek, and I work in the Advocacy and Policy Department of the National Federation of the Blind, our nation's transformative organization of blind individuals, with our headquarters located in Baltimore, Maryland. One of my key priorities is federal legislation affecting autonomous vehicles. Nationally, we are working to secure a federal framework that will establish guardrails intended to protect the public as autonomous vehicles continue to emerge as a viable transportation option. Ironically, one of the federal priorities that the National Federation of the Blind has fought to protect is the right of blind individuals to benefit from the advantages of autonomous vehicle technology. The Autonomous Vehicle Accessibility Act H.R.7126, sponsored by Congressman Greg Stanton accomplishes that very goal, by eliminating the requirement for an autonomous vehicle passenger with a disability to possess a driver's license.

When I first started working on autonomous vehicle public policy for the National Federation of the Blind, I never imagined that our collective dreams could be threatened in Maryland. What Maryland truly needs is an autonomous vehicle law that doesn't unnecessarily restrict or hinder the growth of this transformative technology. We require legislation that incentivizes and encourages rideshare companies to bring autonomous vehicle technology to Maryland, allowing our residents to benefit from society's investment in this innovative field.

Mark Riccobono, President of the National Federation of the Blind, eloquently stated during an address at the US Department of Transportation: "Equal access to reliable, affordable, flexible, and barrier-free transportation is one of the most significant obstacles preventing people with disabilities from fully contributing their talents and achieving full integration in our communities. The race to bring fully autonomous vehicles to America's roads presents an unprecedented opportunity to ensure equal access for people with disabilities."

Please edit and proofread this portion of my testimony to the Maryland General assembly.

The advantage to autonomous vehicle technology is that it is not dependent upon a licensed driver, and, as such, is not constrained by the same limitations as conventional rideshare service. Autonomous vehicles can operate in rural less populated areas, because access is not dependent on a rideshare driver living and working in that geographic area. In addition to circumventing transportation droughts, autonomous vehicles will be available in the middle of the night, when a licensed driver may not want to drive me to the airport. It means that autonomous vehicles will pick up pedestrians in locations in the city with higher incidence of crime. It means that a licensed driver is not present to discriminate against a person who has different a religious background, or skin color, or the fact that the person is blind and using a long white cane, or a service dog.

The National Federation of the blind works with autonomous vehicle companies to ensure that their technology is accessible to all blind people, unfortunately our national staff has very few opportunities to use and test autonomous vehicle technology. The citizens of Maryland and all Americans would benefit from increased autonomous vehicle testing by our national staff, because when you listen to the voices of diverse population you find solutions that are yet uncovered.

One example of how the incorporation of access technology has benefited other populations can be seen when you look back in time. In the 1970s and 80s talking computer software was invented to give blind people the same access to computer technology as the sighted public. Today you see smart speakers in our homes including, Amazon Alexa, Siri on Apple's HomePod, and Google Home are a few common devices that have leveraged access software and turned electronic text into spoken words. They also have leveraged speech to text technology developed to help individuals who are physically unable to type. If we bring autonomous vehicle technology to our community, we will see a level of innovation that will contribute much to our future. However, we may never be as effective if a licensed driver is required to be in the vehicle because there will never be a need for the technology to advance beyond that to full automation. Blind Marylanders will not be free to become truly independent automobile travelers.

We implore you, please do not require the placement of licensed drivers in autonomous vehicles, and please do not hinder the path of progress. Rather, open the doors to a future enriched by imagination and innovation. Thank you for considering our perspective, as we encourage legislation that fosters responsible development and deployment of autonomous vehicles in Maryland.

Maryland HB 1447 - AVs - Unfavorable.pdf Uploaded by: Joshua Fisher

Position: UNF



March 5, 2024

The Honorable Marc Korman Chair, House Environment and Transportation Committee Room 251, House Office Building Annapolis, Maryland 21401

HB 1447: Motor Vehicles - Autonomous Vehicles - Standards, Requirements, and Prohibited Acts Position: Unfavorable

Chair Korman:

The Alliance for Automotive Innovation¹ (Auto Innovators) appreciates the opportunity to provide the following comments on HB 1447, which will make Maryland a national outlier and will greatly curtail automated vehicle (AV) investment, development, and operations in the state.

AVs and Safety

The cars and trucks that consumers are buying today are the safest vehicles ever built. Even so, more than 42,000 people died in traffic crashes in the United States in 2022, including 566 in Maryland². Traffic deaths have surged 30% over the past decade, with nearly 10,000 more fatalities when compared to 2013 numbers.³

The evidence shows that driver behavior – drivers who are impaired, unbelted, speeding, or driving recklessly – are significant factors in the increase in roadway fatalities. That is what vehicle safety is a priority and automated vehicle technology holds the promise to increase safety and reduce these numbers.

AV Landscape

A little over a year ago, we released a report which surveyed the existing AV projects in the U.S.⁴ We found a robust and growing environment for AV development. At the time the report was released, there were over 80 AV companies working in 30 states – between those companies there were nearly 170 different AV related programs in 120 cities.

 $Deaths 23 \#: \sim : text = Traffic \% 20 deaths \% 20 have \% 20 surged \% 20 30, roadway \% 20 fatalities \% 20 and \% 20 dangerous \% 20 driving.$

¹ From the manufacturers producing most vehicles sold in the U.S. to autonomous vehicle innovators to equipment suppliers, battery producers and semiconductor makers – Alliance for Automotive Innovation represents the full auto industry, a sector supporting 10 million American jobs and five percent of the economy. Active in Washington, D.C. and all 50 states, the association is committed to a cleaner, safer and smarter personal transportation future. www.autosinnovate.org.

https://zerodeathsmd.gov/resources/crashdata/crashdashboard/

³ https://www.ghsa.org/resources/news-releases/NHTSA-2022-Traffic-

⁴ https://www.autosinnovate.org/posts/papers-reports/AV%20Report.pdf

AVs regularly move passengers in San Francisco, Phoenix and Las Vegas; deliver goods in Houston; and transport freight across the southwest.

It's not everywhere. Yet. Unleashing the full potential of Avs will ultimately depend on the ability of companies to ramp up the number of AVs on the road. This will reduce costs and increase public confidence in the technology.

HB 1447 Creates Unnecessary Obstacles

Autonomous driving has the attention of Washington, D.C., and the state's – and rightly so. Government has a role to play here, and both state and federal policy must create a clear pathway for AV deployment.

On top of the obvious safety benefits, AVs can provide accessible transportation options for seniors and individuals with disabilities and a chance to reduce traffic congestion and create new jobs and supply chains.

Innovative technologies that can make a difference have already been developed or are well on the way to being made commercially available. The right policies need to be in place to support the continued development of AV technology.

Unfortunately, HB 1447 will create major obstacles to deployment of AV technology in Maryland. HB 1447 will establish a remarkably limited framework for AV operations in Maryland by authorizing a person to operate an AV only if the person is seated in the front seat of the vehicle while the AV is in motion. It would also prohibit AVs from being operated on a highway to transport passengers unless the operation is for a personal and non-commercial purpose.

Such a ban on AV operations in the state will deny its residents the benefits of the technology. Those who currently lack reliable transportation to work or school, seniors, people with disabilities, and many others who would benefit greatly from the increased mobility that AVs could provide, will lack access to the various use cases for AVs. For these individuals, AVs hold tremendous potential to transform mobility, broaden economic participation, and support greater independence. However, HB 1447 would deny them the benefits of AVs by prohibiting them from riding alone in an AV.

Failure to Act

The U.S. is among many nations racing to be the first to develop and bring these new AV safety technologies to market. The winners of this competition will gain clear advantages in market position and in writing the rules of the game – which is one more reason why there's no time to waste to improve the regulatory landscape to bolster research, testing, and public adoption of these important safety features.

Even if we don't get our act together in the U.S., the technology isn't going away. We'll cede our AV leadership to China and other nations already setting the right conditions to make AVs a reality.

Conclusion

AVs hold tremendous promise for a cleaner, safer, smarter future for mobility, but only if we work together on smart policies that are modernized to address the tremendous opportunities that AV technologies hold when it comes to improving roadway safety and expanded mobility for millions of Americans. As our companies start to make plans and critical decisions about where and how and when to build and deploy these technologies, they need to know that policies are in place here in the U.S. that will support those plans and those decisions.

Unfortunately, we cannot support the approach in HB 1447 and request an unfavorable report.

Thank you for your consideration of our position. For more information, please contact our local representative, Bill Kress, at (410) 375-8548.

Sincerely,

Josh Fisher

Senior Director

Alliance for Automotive Innovation.

[MD] HB 1447_AVs_TechNet_pdf.pdf Uploaded by: margaret durkin

Position: UNF



March 5, 2024

The Honorable Marc Korman Chair House Environment and Transportation Committee Maryland House of Delegates Room 251 House Office Building Annapolis, MD 21401

RE: HB 1447 (J. Lewis) - Motor Vehicles - Autonomous Vehicles - Standards, Requirements, and Prohibited Acts.

Dear Chair Korman and Members of the Committee,

On behalf of TechNet, I write to offer comments on HB 1447 related to autonomous vehicles.

TechNet is the national, bipartisan network of technology CEOs and senior executives that promotes the growth of the innovation economy by advocating a targeted policy agenda at the federal and 50-state level. TechNet's diverse membership includes dynamic American businesses ranging from startups to the most iconic companies on the planet and represents over 4.2 million employees and countless customers in the fields of information technology, e-commerce, the sharing and gig economies, advanced energy, cybersecurity, venture capital, and finance. TechNet has offices in Austin, Boston, Chicago, Denver, Harrisburg, Olympia, Sacramento, Silicon Valley, and Washington, D.C.

The development and deployment of autonomous vehicles (AVs) offer the potential to increase equity by providing mobility-as-a-service and enable tremendous societal benefits by improving roadway safety through the reduction in frequency and severity of automobile crashes. AVs also increase access to transportation for all people, including people with disabilities, older adults, and others who cannot currently drive themselves. Further, AVs can significantly enhance the safety and efficiency of goods movement, create jobs, and help better meet consumer demand while promoting innovation and growth across various sectors of the economy. AVs may likewise mitigate other inefficiencies of current motor vehicle use, such as congestion.

TechNet is concerned that HB 1447 could unintentionally stifle innovation and impede the safety and other benefits of this technology. First and foremost, the bill contains a driver-in requirement that would make Maryland an outlier among the



24 other states that have enacted autonomous vehicle legislation. If enacted into law, Maryland would be the only in the country to enact a bill to require a driver in every autonomous vehicle. This requirement will stifle the testing and ultimate deployment of autonomous vehicles, as well as serve as a disincentive for future investments in Maryland. Other states have shown it is possible to foster the safe development of this type of technology without such restrictions.

Furthermore, autonomous vehicles can reduce the occurrence of vehicle accidents. According to 2022 National Highway Traffic Safety Administration data, 42,795 people were killed in vehicle crashes. Autonomous vehicles have the potential to remove the human driver that is usually the cause of events leading to a crash.

Additionally, the bill allows for a private right of action under Maryland's Consumer Protection Act. Private rights of action lead to frivolous lawsuits and take time and resources away from companies who could otherwise use those resources to enhance safety standards and innovation.

TechNet urges you and your colleagues to consider policies that will unlock the tremendous potential of autonomous vehicles. If you have any questions regarding TechNet's opposition to HB 1447 in its current form, please do not hesitate to reach out. We look forward to continuing these conversations with you.

Sincerely,

Margaret Burkin

Margaret Durkin TechNet Executive Director, Pennsylvania & the Mid-Atlantic

MD 2024 NAMIC letter HB 1447 AVs.pdf Uploaded by: Matt Overturf

Position: UNF



202.628.1558 | [F] 202.628.1601 20 F Street N.W., Suite 510 | Washington, D.C. 20001

House Environment and Transportation Committee

HB 1447: Motor Vehicles – Autonomous Vehicles – Standards, Requirements, and Prohibited Acts

UNFAVORABLE | March 5, 2024

Chair Korman and Members of the Committee:

On behalf of the National Association of Mutual Insurance Companies¹ (NAMIC) thank you for the opportunity to submit this statement to express our concerns with House Bill 1447.

NAMIC consists of nearly 1,500 member companies, including seven of the top 10 property/casualty insurers in the United States. The association supports local and regional mutual insurance companies on main streets across America as well as many of the country's largest national insurers.

This is a timely issue under consideration at the local, state, and federal levels, and it is crucial for lawmakers to make informed policy decisions that consider all affected stakeholders, especially insurers and their policyholders who will share roads with self-driving vehicles (SDVs) for decades to come. A data-driven approach is important as most questions surrounding SDVs still need to be answered.

Safety Must be Paramount:

NAMIC supports automated driving system (ADS) innovation and technological advancements to the extent that they improve safety, save lives, and reduce injuries from vehicle crashes. These technologies continue to show great promise – and many in this space argue that unlike some humans, SDVs do not drive while intoxicated, distracted, or tired – arguments that carry great weight, especially in light of ongoing road safety challenges that result in more than 6 million crashes, 4.5 million injuries, and nearly 43,000 deaths in the United States per year. In addition to the tragic nature of these statistics, in many instances our policyholders are forced to deal with the financial stress of these crashes. The National

¹ NAMIC member companies write \$357 billion in annual premiums and represent 69 percent of homeowners, 56 percent of automobile, and 31 percent of the business insurance markets. Through its advocacy programs NAMIC promotes public policy solutions that benefit member companies and the policyholders they serve and fosters greater understanding and recognition of the unique alignment of interests between management and policyholders of mutual companies.



Highway Traffic Safety Administration (NHTSA) estimates these crashes cost American society as much as \$340 billion per year.²

Some industry analysts estimate that there may be as many as 3.5 million self-driving vehicles on U.S. roads by 2025, and 4.5 million by 2030 – a number that seems large until one considers that will still be less than 1.5% of the nearly 300 million vehicles on those roads. Additionally, not all of these vehicles will be fully autonomous, but will instead likely have autonomous capabilities under certain conditions. Proper planning demands a consistent and precise framework of definitions, standards, and legal requirements to protect both SDVs themselves and the more than 200 million licensed drivers they will share the roads with.

NAMIC believes a better understanding of SDV safety and risks will be important for all stakeholders as the relevant technology, laws, and regulations mature. More research is needed to develop formal standards and analyze operations of SDV human machine interfaces, sensors, privacy, software, and cybersecurity. Further, it is necessary to develop predictable legal standards of duty and care; one key problem we continue to see in HB 1447 and similar proposed legislation in other states is the phrase "capable of performing the entire dynamic driving task." NAMIC believes this language is inadequate, since merely being "capable" of operating safely or in compliance with applicable traffic and motor vehicle safety laws within the operational design domain leaves significant room for error and allows for non-compliance.

It is important to understand that no self-driving vehicle exists today that has been truly proven to be safe. A typical SDV is composed of a sensor-based perception system, an algorithm-based decision system, and an actuator-based actuation system, as well as the interconnections between systems, where ideally, all components function well and consistently so that the SDV safety can be ensured. Without that assurance, SDVs may be less safe than human drivers.

Driver training and public awareness are key pieces of the puzzle. Drivers need to know what their vehicle can and cannot do. As more vehicles with self-driving features are deployed on the road, fully understanding the appropriate use of this technology should be prioritized as consumers and insurers deal with the impacts, especially when the technology does not function as intended. It is unfair to make other drivers on the road part of an experiment and subject them to these new risks if existing regulations and laws do not ensure and require that these vehicles operate safely.

NAMIC is first and foremost committed to road safety. In the last two years, we have joined the Governors Highway Safety Association, the National Alliance to Stop Impaired Driving, and the Partnership for Autonomous Vehicle Education, and adopted an updated set of policy principles affirming our efforts to reduce the frequency and severity of crashes to better protect policyholders and claimants. We were among the first to support the U.S. Department of Transportation's 2022 National Roadway Safety Strategy, and we are actively engaged in these discussions with stakeholders at the state level,

-

² National Highway Transportation Safety Administration: The Economic and Societal Impact of Motor Vehicle Crashes, 2019.



where registration, licensing, and road operation laws are most appropriately enacted and enforced. Additionally, for years NAMIC has participated in industry efforts including serving on the boards of the Advocates for Highway and Auto Safety and the Insurance Institute for Highway Safety / Highway Loss Data Institute.

In addition, NAMIC has written several white papers on autonomous vehicle safety, including, "Validating Safety: The Next Phase in Developing Autonomous Driving Systems". NAMIC staff and members will also make ourselves available to participate in your discussions moving forward to help Maryland remain at the forefront of these important policy developments.

A Path Forward:

NAMIC believes the development of answers to the questions raised in this testimony will be key as a framework for SDVs is developed and considered. The property / casualty insurance industry is committed to performing its risk identification, assessment, and pricing role as this technology is developed. NAMIC member companies will serve as a resource to help inform and educate lawmakers and SDV manufacturers about how this technology and these vehicles are playing out on the ground, and what the current challenges are for policyholders and insurers alike.

NAMIC fully supports innovation and development that enhances safety. As the development of SDVs goes forward, the insurance industry will continue to play a leadership role as it has done historically to promote safety and the protection of persons and property.

For these reasons, NAMIC opposes House Bill 1447 in its current form and respectfully requests an unfavorable report of the bill and allow for continued work on the numerous outstanding unknowns that surround SDVs.

Sincerely,

Matt Overturf, NAMIC Regional Vice President

Matthew Overturf

Ohio Valley/Mid-Atlantic Region

Othman_UNF_NFB_HB_1447 Uploaded by: Ronza Othman

Position: UNF

Subject: Opposition to HB1447Motor Vehicles – Autonomous Vehicles – Standards Requirements, and

Prohibited Acts
Date: March 7, 2024

From: National Federation of the Blind of Maryland 15 Charles Plaza, #3002, Baltimore, MD 21201

president@nfbmd.org

To: House Energy and Environment Committee

My name is **Ronza Othman**, and I serve as the President of the **National Federation of the Blind of Maryland**. Our organization is committed to advancing the lives of blind individuals across the United States. One critical aspect of our mission is safeguarding the civil rights of blind people.

Today, I stand before you to advocate for our rights. **Level IV highly autonomous vehicle technology** has already been deployed in cities such as San Francisco and Phoenix, and it will soon be available in Los Angeles, the San Francisco Peninsula, Houston, and Austin, Texas. As a blind woman, I am excited about the possibilities this technology offers. Imagine me using my iPhone to hail a fully autonomous vehicle—one that operates without a licensed driver or any other human presence in the passenger compartment. This vehicle would safely transport me to my desired destination. In fact, I could fly from BWI to Phoenix or San Francisco today and experience this groundbreaking technology firsthand.

However, proposed legislation that prohibits autonomous vehicle use on our highways and mandates licensed drivers would hinder our progress. It would lock the door to fully realizing the dreams of blind individuals like myself. If this law passes, we will be denied the same freedom of movement which is a right for every licensed driver in Maryland.

We urge you to do the right thing. Let us protect the rights of the 111,500 people in our state who report having a vision disability. As an affiliate of the National Federation of the Blind, we firmly believe in the promise of autonomous vehicle technology. In November 2023, we passed a resolution emphasizing our commitment to encouraging the Maryland General Assembly to enact equitable legislation in this domain.

I have included an excerpt of that resolution below for your review:

BE IT RESOLVED by the National Federation of the Blind of Maryland assembled this eleventh day of November, 2023,

that we urge the Maryland General Assembly to pass legislation making it possible for autonomous vehicle manufacturers to deploy and test autonomous vehicle rideshare service in Maryland; and

BE IT FURTHER RESOLVED that we urge Baltimore City, Baltimore County, and other jurisdictions to create policies that would incentivize autonomous vehicle rideshare companies to operate in their jurisdictions; and

BE IT FURTHER RESOLVED that we urge the leading autonomous vehicle manufacturers to start investigating opportunities for deploying and testing commercial autonomous vehicle rideshare service in Maryland.

Why Is a Licensed Driver in a Highly Autonomous vehicle an Issue?

The presence of a licensed driver in a highly autonomous vehicle gives rise to several critical problems:

A. Discrimination Risk:

Blind individuals currently face discrimination from rideshare companies based on various factors, including being service dog users or using a long white cane while blind. Additionally, members of marginalized and underprivileged communities encounter discriminatory practices. When a licensed driver is involved, the risk of discriminatory behavior persists, leading to the choice not to serve our community.

B. Testing and Accessibility:

Our national organization's headquarters is located in Baltimore, Maryland. We eagerly anticipate the opportunity for our members and national staff to rigorously test various aspects of autonomous vehicles. These include software applications, vehicle controls, announcements, points of interest, and scheduled drop-offs. Ensuring that these vehicles remain fully accessible to the blind population is crucial. However, having a licensed passenger onboard introduces the risk of interference with these critical testing procedures during scheduled trips.

Inaccuracies About Safety: Proponents of this bill will tell you that it is necessary to ensure safety. That is categorically wrong, as the cities where this technology has been deployed will tell you. In fact, the Federal government currently has a bill making its way through Congress to promulgate rules around the use of AV technology with an emphasis on prohibiting discrimination against blind and otherwise disabled users/operators. More, the allegations around safety are incorrect in that every accident involving an AV has been due to a standard vehicle causing that accident, e.g. a non-AV causing an accident and getting in the way of an AV which could not stop

quickly enough – just like a non-AV could not have stopped quickly enough. More, allegations that a human driver who possesses a driver's license is needed if the car locks up to manually steer is also incorrect, as new non-AV vehicles have their steering column lock up, preventing the car from being able to be put into neutral and moved; also, doing so requires two people, and so unless the law will prohibit single individuals from operating a vehicle, this argument is ridiculous.

In Maryland, rideshare vehicles are considered commercial in nature, and so this proposed bill will also prohibit individuals with disabilities from moving about their communities, getting to the airport, and even getting to the General Assembly to engage their representatives.

As we stand at the on ramp of technological innovation, we have a unique opportunity to shape the future of transportation. The advent of highly autonomous vehicles promises newfound increased independence and mobility for blind individuals like myself. However, we must tread carefully, ensuring that our legislation reflects the principles of equity, accessibility, and fairness.

By embracing autonomous vehicle technology, we open doors that were once tightly closed. We empower blind individuals to move freely within our communities, unencumbered by the limitations of traditional transportation. Let us not allow fear or hesitation to hinder progress. Instead, let us champion legislation that paves the way for a more inclusive and accessible world—one where blind individuals can confidently hail an autonomous vehicle, knowing that it will safely transport them to their destination.

On behalf of Maryland's blind individuals, and the over forty organizations that are part of Maryland's Disability Coalition, implore you: vote unfavorable to this bill - Consider the dreams of the blind, the aspirations of those who seek independence, and the promise of technology that transcends barriers.

HB1447 - MVA - Autonomous Vehicles - Standards Req

Uploaded by: April King

Position: INFO



Wes Moore Governor Aruna Miller Lieutenant Governor Paul J. Wiedefeld Secretary

March 7, 2024

The Honorable Marc Korman Chair, House Environment and Transportation Committee 251 House Office Building Annapolis MD 21401

RE: Letter of Information – House Bill 1447 – Motor Vehicles - Autonomous Vehicles - Standards, Requirements, and Prohibited Acts

Dear Chair Korman and Committee Members:

The Maryland Department of Transportation (MDOT) offers the following information for the Committee's consideration on House Bill 1447.

House Bill 1447 would authorize a person to operate a fully autonomous vehicle if seated in the front seat of the autonomous vehicle (AV) and if they possess a valid driver's license. The legislation also prohibits AV taxis, shuttles, micro-transit, buses, and other AV for-hire vehicles.

The MDOT Motor Vehicle Administration (MVA) monitors emerging and innovative technologies – including connected and automated vehicles (CAV) – to adapt to, and take advantage of, technologies reshaping mobility choices and freight logistics. The rapidly developing and quickly emerging technology in the AV field has the potential to transform the way people and goods move through Maryland's transportation system, enhancing highway safety, increasing mobility options, and fostering economic productivity.

The U.S. Department of Transportation (USDOT) deems that automation has the potential to impact safety significantly by reducing crashes caused by human error, including crashes involving impaired or distracted drivers, resulting in saving lives on America's roadways. Currently, even the highest level of driving automation available to consumers requires the full engagement and undivided attention of drivers. However, there is considerable dedication and investment into safe testing, development, and validation of new and advanced vehicle technology with the enormous potential for improving safety and mobility, along with improving equity, air pollution, accessibility, and traffic congestion from these burgeoning technologies.

SAE International is a global standards development and professional association widely considered the industry leader in defining standards in the AV field. SAE J3106 defines the SAE Levels from Level zero (no driving automation) to Level 5 (full driving automation). References to "fully autonomous" at the national level consider it to be designed to function without a human driver as a level four (4) or five (5) system. Most AV testing and deployment start on the test track, move to protected on-road testing, then testing in mixed traffic with a safety operator. Only after such extensive testing has eventually proven an AV technology or system safe is it considered for fully self-driving without a human monitoring. House Bill 1447 may impede this testing and deployment in Maryland with the mandate to always require a human in the driver's seat even for Level five (5) fully self-driving vehicles.

If passed, Maryland would be the first and only state in the country to have a "driver-in" policy mandated for all AVs. Alternatively, 24 states allow AV deployment with no human operator onboard, with another 12 states allowing for testing.

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The MVA currently has a process for connected and automated vehicles on Maryland's roadways. Since 2015, the MVA has supported a robust Connected and Automated Vehicle (CAV) Working Group which serves as the central point of coordination for the development and deployment of emerging CAV technologies in Maryland. Maryland's CAV Working Group includes elected officials, representatives from state and local government, highway safety organizations, private sector, automotive industry, and other transportation stakeholders. This group evaluates the latest research, including guidance from the American Association of Motor Vehicle Administrators (AAMVA) and the USDOT, tracks federal and state actions, and coordinates with all interested stakeholders. This collaborative program is setting a course for the future of automated and connected vehicles in Maryland, prioritizing the safety for all roadway users.

The MVA serves as the central clearinghouse for planning and coordination as well as testing for CAVs in Maryland. To support a safe and productive testing environment, the MVA facilitates a permit process for parties interested in testing highly automated vehicles (HAV) and has designated a number of sites owned by MDOT and its partners for the testing of CAV technologies. Through the HAV permit process, applicants work collaboratively with the MVA to ensure project objectives are met while prioritizing safety in testing.

The MVA is embracing CAV technology and working collaboratively with many partners to ensure that Marylanders benefit from a transportation system which fully realizes the many positive potential outcomes of CAV technology, while also ensuring the safety of all roadway users. This means taking active steps to prepare for the future by engaging with new technologies to ensure safety without impediments to the safe testing and deployment of such vehicles.

The Maryland Department of Transportation respectfully requests the Committee consider this information when deliberating House Bill 1447.

Respectfully submitted,

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