



Transport Workers Union of America, AFL-CIO

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"AMERICA'S FIGHTING DEMOCRATIC UNION"

July 25, 2023

The Honorable Gus Bilirakis
Chair
Subcommittee on Innovation, Data,
& Commerce
Committee on Energy and
Commerce
U.S. House of Representatives
Washington, DC 20515

The Honorable Jan Schakowsky
Ranking Member
Subcommittee on Innovation, Data,
and Commerce
Committee on Energy and
Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Chair Bilirakis and Ranking Member Schakowsky,

On behalf of more than 155,000 members of the Transport Workers Union of America (TWU) who work across our transportation system, I am writing to express our strongly held views about the future of our transportation system and its workers as rapidly developing autonomous vehicle (AV) technologies begin to be deployed across the U.S. Our members include transit operators, airline ground service workers, railroad shop craft workers, mechanics in every mode of transportation, and many others who work in and around vehicles to earn their living. All of these workers will be profoundly affected by the shape new technologies like AVs take in the coming decades.

We appreciate you gathering your subcommittee together for a legislative hearing regarding *Self-Driving Vehicle Legislative Framework: Enhancing Safety, Improving Lives and Mobility, and Beating China*. This hearing presents an opportunity for Congress to set a pro-safety, pro-worker path forward on the future of these technologies and reject a dangerous laissez faire approach to AV regulation. We believe that policymakers have an obligation to put in place strong and responsible guardrails around nascent industries like AVs based on safety and job outcomes; we do not believe that Congress should accelerate unproven, untested technologies which fuel investor profits in the short-term at the expense of the public interest.

New technologies like AVs should be viewed as part of a larger pro-worker innovation policy

TWU members have been at the forefront of new transportation technology for generations.¹ Our experience as frontline workers implementing, operating, and maintaining new equipment, processes, and modes leads us to believe that innovation can and should have a positive outcome for working families. Such outcomes are not guaranteed, but can be achieved when policymakers take steps to:

- Require transparent planning & reporting (both to effected workers and to safety regulators)
- Maintain existing safety & security standards, i.e., require new technologies to demonstrate that they meet or exceed our standards rather than lower standards to meet a current technology's capabilities
- Mandate workforce involvement in planning and implementing new technology, including as an integral part of any government advisory bodies.

AVs are not unique in this regard, they are simply another innovation in a long line of transportation technologies stretching back to the wheel. These principles, if fully expressed as part of any AV legislative framework, will ensure that American workers benefit from this potential technological transition.

We are deeply concerned that the major AV developers have an unambiguous plan to rush driverless vehicles onto our roads and into our public transit systems without safety standards or adequate failsafes - including a human operator - to ensure the safety of these vehicles. These companies are asking the state and federal policymakers to sidestep the tough safety questions and sanction these deployments with very limited oversight or regulation. This “trust me” approach pretends that this technology is somehow independent of the realities of every other innovation over the past two centuries. It would defy decades of federal transportation safety policy and places the public and workers at significant and unnecessary risk. It is also the exact opposite approach that we have learned through countless accidents across multiple modes: federal oversight is essential to ensure the safety of transportation systems. The proactive approach taken by the Department of Transportation ensures the transportation technologies we sanction across the multi-modal network are safe by demanding these innovations demonstrate their safety capabilities BEFORE widespread deployment. We know that even the most advanced technologies fail on a regular basis and that the best protection is strong regulation, redundancy, and well trained workers.

¹ The TWU has commented extensively on this issue over the past several years, including [testimony last year before the House Transportation and Infrastructure Committee](#). We would also draw your attention to the [Worker-first AV Legislative Framework](#) and the [AV Tenants led by the Advocates for Highway and Auto Safety](#), both of which the TWU has strongly endorsed.

Many of the policies the TWU believes must be included in an AV legislation would need to be implemented by the Federal Motor Carrier Safety Administration (FMCSA) and the Federal Transit Administration (FTA). These areas require partnership between the Transportation and Infrastructure Committee and the Energy and Commerce Committee. Any legislation which does not include fulsome titles from both jurisdictions will not properly regulate the industry and will undermine workers' futures.

Different approaches presented by the draft proposals

The TWU is pleased to see that this hearing will evaluate two different approaches to setting a framework for AV regulation and deployment. It is our hope that this timely hearing will launch a careful, bipartisan process to address the complex policy choices before you². This committee has an opportunity to embrace and advance responsible, pro-safety and pro-worker legislation or take us down a dangerous path that continues the current approach of permitting poorly regulated, often dangerous AVs to traverse our roads and highways without clear and enforceable standards. We strongly believe that any approach that does not properly regulate these vehicles prior to their widespread deployment is unacceptable and, as we have stated repeatedly, one that we will strongly oppose.

TWU has been a vocal proponent of responsible AV policy and has offered a number of proposals that would protect passengers and workers from the premature and rogue deployment of AVs. We have publicly addressed a number of critical issues that lie at the center of the legislative choices before this committee. We believe that the proposal offered by Representative Dingell responsibly and directly addresses most of these issues within the Energy and Commerce Committee's jurisdiction. This legislation is the product of more than two years of difficult discussions with stakeholders across the industry; it is a well-thought out and well-designed approach tailored to the realities we are seeing on our roads in 2023. While we appreciate that the draft offered by Representative Latta aggressively takes on the competition issues presented by China and others, the core of this draft remains little changed since 2016 - an era before any driverless vehicle was a reality, before the widespread adoption of ridesharing, and before many of the companies in the industry were even established. There is no question that the Dingell draft presents a more holistic and realistic approach on these issues.

Public transportation must be held to the standards of commercial vehicles

One of the most significant differences between proposals under discussion is their treatment of public transportation. The Dingell proposal makes it clear that public transportation vehicles are not eligible for exemptions from federal requirements when an equipment manufacturer seeks to test or implement autonomous vehicles or buses in a transit system. This is the same

² Statement, July 19, 2023, by TWU International President John Samuelson: <https://www.twu.org/safety-and-union-jobs-must-be-prioritized-in-autonomous-vehicle-legislation/>

standard both bills apply to commercial motor vehicles (CMVs) generally, but quirks in the code make it necessary to explicitly extend this line to public transportation (as defined in 49 USC 5302). The Latta proposal would open a regulatory gap between CMVs and those operated by transit agencies - potentially driving billions of dollars in research, investment, and deployment efforts into transit systems as other avenues for CMV projects would be limited. Given the evolving research³ around the limitations of AV technology in public transit specifically, such a loophole runs directly counter to the reality of the threat to safety posed by these systems in their current state. It is a dangerous policy to permit the widespread use of exemptions for purposes of unleashing this technology, without a human operator onboard, in the complex public transit industry.⁴

Further, we would note that the proper venue in the House for discussions of AV deployment in public transportation is the Transportation and Infrastructure Committee. The TWU believes the Dingell proposal is necessary to allow the subject matter experts on public transportation policy the ability to write the rules for the industry. The Dingell language (specifically the updated 49 USC 30113(b)(2)(F) under section 7 of the proposal) is the best, clearest demarcation line between the committees and an absolutely essential component of any final bill.

Human-accessible controls are a necessary safety component for all vehicles

As drafted, the Latta proposal wrongly exempts AVs from all Federal Motor Vehicle Safety Standards that are applicable to the human driver. The draft does not even require the manufacturer to demonstrate an equivalent level of safety before removing these controls. By definition, a level 4 AV will require human supervision and intervention when automations fail and when these vehicles are faced with situations beyond their programming. Permitting AVs in our transportation system without the capability needed for a human to take control of the vehicle is dangerous and should be rejected entirely.

For workers whose workplace is the vehicle under their responsibility, this policy choice is potentially catastrophic. We know from decades of experience that transportation automation routinely fails. In aviation, pilots regularly take control of the aircraft, despite autopilot capability, in response to failure or malfunction. The Boeing 737-MAX crashes in 2019⁵ and the

³ How to Make Sense of Bus Transit Automation: <https://www.cmu.edu/traffic21/research-and-policy-papers/traffic21-policy-brief-22.1---apr-14-002.pdf>

⁴ Opinion article by John Samuelsen, Tech Crunch, February 2022: <https://techcrunch.com/2022/02/02/humans-should-drive-our-transit-future-not-robotic-vehicles/>

⁵ The Boeing 737-MAX crashes were caused by faulty angle of attack sensors which, falsely, believed the aircraft was tilted upwards when flying along a horizontal plane. This system responded to this incorrect information by pointing the aircraft's nose downward (believing this would level out the aircraft). In response, the pilots, witnessing the aircraft beginning a nose dive, attempted to pull the flight controls upwards to counteract the computer's commands. The angle of attack sensors then read this upward movement as exacerbating its false reading and put more thrust into its downward tilt. This process continued until the aircraft crashed at full speed with the computer still believing the aircraft was pointed upwards. At the time of these crashes, pilots in the U.S. had been trained to simply turn off the automation and take control of the aircraft manually if the computer

Washington, DC Metro red line crash in 2009⁶ were all the result of failed automation technology overruling human commands. Hundreds died because of technology failure and unresponsive human intervention systems. These failures are continuing in AV systems on the road today. In 2017, an autonomous shuttle testing on the streets of Las Vegas, NV was involved in a slow motion accident because the driver's controls (an Xbox controller) were locked in an inaccessible glovebox.⁷ To blanketly exempt all AVs from human driver safety requirements without assuring equivalent safety outcomes guarantees that these vehicles will crash⁸ and that people will be hurt or killed as we see on our roads today.

AV companies should not be allowed to profit from test vehicles on public roads

The two proposals also differ around the rules for testing and evaluation of AVs. This is important because AV companies that run driverless rideshare operations are being incentivized to engage in unsafe behavior on public roads. Under the Latta language, companies who operate test vehicles alongside regular traffic would be able to charge riders and package delivery companies for use of these vehicles. To be clear: these are NOT vehicles which NHTSA has exempted from specific standards or which have demonstrated alternative compliance methods. These provisions are focused on experimental vehicles in the early stages of development - the most dangerous stage of the innovation cycle.

While some AV developers may support this language which would allow technology companies to start earning revenue for their investors earlier in the process, the fact is that these vehicles will have little to no safety data available for NHTSA to determine the threat level to other road users. True road tests are necessary for safety regulators to determine whether a new technology will eventually be viable. Unless these tests are barred from revenue service, bad actors will be able to rush unsafe components, software, and vehicles into service seeking a quick infusion of cash for their early investors. This is a very common strategy for many forms of technology (often termed the "minimum viable product" - the core item for sale which can prove a company has a potentially marketable product), but it has never been an acceptable practice in transportation, where the bare minimums are generally considered unsafe. Any

responded in this way - an action that would have averted these disasters entirely.

<https://transportation.house.gov/imo/media/doc/2020.09.15%20FINAL%20737%20MAX%20Report%20for%20Public%20Release.pdf>

⁶ The 2009 WMATA red line crash at Rhode Island Avenue metro station occurred when the positive train control system did not sense a stopped train waiting at the station platform. The train leaving Union Station behind it was told to accelerate along an empty track. The operator of the accelerating train saw the stopped train and pulled the brake. After briefly slowing down in response to the human command, the automatic system then reiterated its command to accelerate as it still did not sense the stopped train ahead. The automation overruled the human operator and crashed at full speed into the back of the stopped train while the human operator continued to hold the unresponsive brake lever.

<https://www.nts.gov/investigations/AccidentReports/Reports/RAR1002.pdf>

⁷ <https://www.nts.gov/investigations/accidentreports/reports/hab1906.pdf>

⁸ NPR, June 15, 2022 <https://www.npr.org/2022/06/15/1105252793/nearly-400-car-crashes-in-11-months-involved-automated-tech-companies-tell-regul>

sincere attempt to regulate the AV industry must hold the line on this standard practice and keep testing vehicles out of revenue service.

AVs must provide safety regulators with robust, publicly available safety data

One of the most glaring contrasts between the Latta and Dingell drafts is in data collection and reporting. Unlike traditional cars, AVs are and will be capable of tracking and reporting performance and safety metrics in significant and detailed ways. For the vehicles on the roads today, this data is already being collected and sent back to the developers, often as proprietary information. Some AV companies have argued that this approach is essential to their business model - Waymo even sued the state of California to keep its data away from the public⁹ - but denying safety regulators and publicly interested groups access to this data is producing negative safety outcomes. Unless safety regulators can independently and accurately assess unbiased datasets, they will not be able to make important decisions on which pieces of technology are truly ready for deployment and which are just marketing material.

The Dingell approach would codify existing NHTSA policy on AV data collection and establish a public, searchable database of AV testing projects. This is absolutely necessary if we are serious about analyzing and responding, in real time, to safety defects - especially in the wake of accidents. The proposal would also require the installation of event data recorders (similar to an aircraft's black box) which would give investigators the necessary information to determine the proximate causes of accidents. Perhaps most importantly, the Dingell proposal would require exemption holders to share certain data with NHTSA as a condition of their exemptions. Our understanding of the "need" for an increased number of exemptions for these vehicles is to gather sufficient real-world data to establish best safety practices; if this is the case, the automakers should have no concerns with sharing that exact thing with safety regulators. AV developers constantly brag about the safety of the vehicles they want to deploy; the more data available to analyze those claims, the better off every road user will be.

The Latta draft contains no reporting or data collection requirements.

Any exemption program for AVs must be designed to produce updated safety standards

Both proposals include allowances for significant numbers of AVs to be exempted from safety standards for more than a decade. While the TWU is concerned about the overall number of untested vehicles each draft would allow onto our roads, the differing approaches present very different futures for the safety of our systems.

The TWU is concerned that the process envisioned in the Latta draft could break incentives for automakers to push NHTSA to conclude rulemaking processes for AVs and allow unelected

⁹ Waymo sues California to hide its AV crash data: <https://www.theverge.com/2022/1/28/22906513/waymo-lawsuit-california-dmv-crash-data-foia>

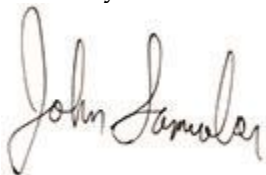
bureaucrats to govern by exemption rather than establish updated standards to equitably govern the industry. This approach permits exemptions for up to 100,000 AVs per manufacturer per year as long as these vehicles “make easier the deployment, development, or field evaluation” of AVs. Manufacturers would be eligible for these exemptions forever. This structure nearly ensures that NHTSA will not be able to complete a comprehensive set of motor vehicle safety standards for the foreseeable future as some manufacturers may prefer to sell vehicles under an exemption rather than meet a new standard.

In contrast, the 80,000 AVs per year per manufacturer allowable under the Dingell proposal would be subject to conditions of deployment (including data collection reference above) - conditions which would be enforceable by NHTSA should a recipient break these terms. Manufacturers would lose their exemptions for specific components or systems as NHTSA completed relevant rulemakings to update the standards. NHTSA’s authority to issue any of these exemptions would sunset after 12 years with the final four years seeing a slow down of production to allow manufacturers a glide path back into the normal certification process. This approach will help ensure that stakeholders and policymakers are aligned in pushing for completion of serious rulemakings in a timely manner.

The TWU strongly believes that action is required now if safety regulators are going to have any chance to ensure oversight of this technology before widespread deployment. This belief is shared by both the Latta and Dingell proposals and we hope the Committee will take the best of these efforts to move forward on a bill which: raises AV technology to the highest standards; scrutinizes and carefully regulates the use of exemptions from federal safety requirements; provides real-time data to the public and regulatory experts so that responsible, data-driven safety assessments can be made; keeps unsafe, untested technology off the road; and, does not undermine our public transportation systems’ workforce.

We have been consistent for a number of years about what we believe must be included in any AV legislation. We will not support any legislation that fails to live up to those standards. We look forward to working with all parties in this committee as well as the Transportation and Infrastructure Committee for a pro-safety and pro-worker AV bill.

Sincerely,

A handwritten signature in black ink that reads "John Samuelsen". The signature is written in a cursive, slightly slanted style.

John Samuelsen
International President

CC: The Honorable Cathy McMorris Rodgers
The Honorable Frank Pallone

