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Before the Senate Committee on Commerce, Science, & Transportation
Subcommittee on Surface Transportation, Freight, Pipelines, and Safety
June 9, 2026



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Chairman Young, Ranking Member Peters, and members of the Subcommittee, thank you for the opportunity to testify today on “The Need for Speed: How Technological Advances are Driving Transportation Innovation.” The International Brotherhood of Teamsters represents 1.3 million hardworking people in the United States, Canada, and Puerto Rico, including hundreds of thousands of members in the transportation industry including in commercial trucking. In the railroad industry, we are also proud to represent the Teamsters-affiliated Brotherhood of Locomotive Engineers and Trainmen (BLET) and the Brotherhood of Maintenance of Way Employees (BMWED).

Throughout our history, the Teamsters Union has been at the forefront of adapting to and evolving with technological changes that fundamentally impact our work and workplaces. Our namesake refers to the men who drove horse-drawn wagons across the country, serving as the lifeblood of our economy and the origins of our freight network. By 1912, appreciating the promises of internal combustion vehicles, a group of Teamsters participated in the first transcontinental delivery of goods by truck, hauling three tons of soap from Philadelphia to Petaluma, California.

Since then, our union has expanded greatly, organizing members across the nation in innumerable industries and crafts. Technological change and advancement have, and will continue, altering these occupations and what work may look like day to day. Fundamentally, we are supportive of technologies that improve working conditions and safety for our members, or that offer new opportunities which did not exist previously. The Teamsters will continue to rise to the occasion and ensure that the evolution or creation of jobs also entails the ability of workers to choose to join a union – and the protections, wages, and improved conditions that are inherent to doing so.

We also fundamentally assert that the most powerful tool available to the American worker to best navigate the impacts of technological change is a collective bargaining agreement. It is the only method by which workers have an opportunity to directly engage with their employers over the deployments of new technologies and provide the most valuable data while doing so – the perspectives of individuals who will directly interact with such technologies and can address both positive and negative impacts of such deployments.

The Teamsters have been the vanguard of these efforts, increasingly using the collective bargaining process to create formal structures, such as technology committees, in which our members have direct and binding channels to negotiate the terms of new technological deployments in a manner that ultimately benefits both our members and our employers.

Teamsters and Technology

In recent years, Teamsters have championed and welcomed the adoption of numerous technologies in our workplaces. In the trucking industry, we have long supported the adoption of Automatic Emergency Braking systems in Class 7 and 8 heavy duty trucks – which were largely already installed in many of our vehicles even prior to the federal mandate. The replacement of

paper hours of service logs with Electronic Logging Devices is an important step in ensuring compliance with critical safety mandates and keeping unscrupulous operators off the road.

We've also bargained over the use of non-regulated technologies, ranging from in-vehicle telematics to package tracking equipment, to efficiency technologies in warehousing.

BLET represented locomotive engineers spent years calling for installation of positive train control (PTC) systems long before their Congressionally mandated deployment. These systems provide an extra layer of safety to help prevent collisions, derailments, and conflicting train movements, and in coordination with qualified locomotive engineers demonstrably improve outcomes.

Across their long history, BMWED members charged with inspecting and maintaining track and railroad infrastructure have engaged with innumerable fundamental changes to their workplaces from the deployment of hydraulic tools to the development of production tampers, to the use and standardization of continuous welded rail in the industry.

In all of these cases, and in many more across our union we have welcomed the adoption of new technologies that improved the jobs of our members as they functioned alongside them.

It is also the case that positive opportunities for new technology exist outside of the physical operation of modes of transportation. Chairman Young's SAFER Transport Act considers the use of A.I. tools to identify patterns in Federal Motor Carrier Administration (FMCSA) registrations and safety data that are suggestive of the presence of chameleon carriers, fraudulent registrations, or double brokering. These flags would then be reviewed by FMCSA staff, who could then launch investigation or enforcement action. Given the vast universe of regulated entities FMCSA is responsible for overseeing, and the dangers presented by carriers operating unlawfully, providing AI tools in concert with human review to make actual investigatory and enforcement decisions could prove beneficial in addressing pressing safety concerns.

Autonomous Vehicles

There is likely no technology with a disruptive impact as wide reaching as autonomous vehicles, including autonomous commercial motor vehicles. We are seeing commercialized deployments of these vehicles increase by the day, across the country. At the same time, the federal government has thus far failed to create any kind of framework that would address manufacturing standards, operational requirements, or workforce impacts of this technology.

As the Subcommittee is well aware, the singular unique requirement placed on autonomous vehicles today is that significant accidents must be reported via the National Highway Traffic Safety Administration's (NHTSA) Standing General Order 2021-01. Continuing to permit the unfettered and unregulated operation of autonomous vehicles presents only harm to roadway safety and to the continued existence of the millions of jobs directly in, or connected to, commercial driving.

Action on this front is increasingly overdue, and the Teamsters continue to call on Congress and regulators to take action to create a binding regulatory framework that prioritizes safety and addresses unique conditions and risks presented by autonomous vehicles. Specifically, this framework must extend beyond un-benchmarked and amorphous fully self-certificated regimes which substitute meaningful safety oversight for box-checking exercises.

We further reject the blanket conclusion that pursuing thoughtful regulation on these novel technologies is anathema to innovation and note that this position is not borne out by history. As horse-drawn carriages gave way to trucks, individual states began passing laws on truck safety as early as 1913. By 1935, Congress saw fit to pass the Motor Carrier Act, which specifically created authority under the Interstate Commerce Commission to "establish reasonable requirements with respect to . . . safety of operation and equipment." That legislation ultimately paved the way for the federal safety regime we know today, including the development of Federal Motor Vehicle Safety Standards (FMVSS), with the first FMVSS adopted in 1967.

Over nearly 100 years of further technological advancement, Congress and regulators have created, amended, and repealed safety requirements as necessary to meet the times. However, it is simply ahistorical to now claim that technological innovation simply cannot exist outside of a laissez-faire regulatory structure. Well-considered regulation is a predicate for, not an unjust impediment to, the safe deployment of new technologies. To that end, we are committed to working with both this Subcommittee and the full Committee to develop a strong federal framework on commercial autonomous vehicles.

Lastly, we urge Members to consider the economic impacts of mass deployment of unregulated autonomous vehicles on your constituents. The single most common occupation for men in the United States without a college degree is truck drivers and driver/sales workers.¹ It is not a credible claim to assume that if given the opportunity, employers will only seek to automate small segments of the industry when the primary motivating factor behind AV deployment is the elimination of labor costs.

Neither are our members, or commercial drivers writ large, swayed by promises that the economy will naturally produce equivalent numbers of jobs if AV deployment begins to result in displacement, much less that any such jobs will be similarly available and/or offer comparable levels of compensation and benefits. Congress must not ignore these potential impacts as it considers the adoption of AVs.

Technology and Security Threats

As transportation technologies of all stripes become more advanced and more interconnected, security risks also become more abundant. This is particularly acute as it relates to trucking and rail where the ability of a bad actor or a foreign adversary to access or otherwise effect operations could easily prove to be catastrophic.

¹ <https://www.pewresearch.org/short-reads/2024/07/11/among-young-us-workers-without-a-college-degree-men-and-women-hold-very-different-types-of-jobs/>

The Teamsters thank Senators Moreno and Slotkin for their introduction of Connected Vehicle Security Act of 2026, and Subcommittee Members Senators Schmitt and Capito for their cosponsorship. The legislation would prohibit the import of certain vehicles and components manufactured in China, which could potentially give the Chinese government or manufacturers access to Americans' data or even operational control of their vehicles.

Similarly, the Teamsters are concerned with ownership and/or control of U.S. based manufacturing of transportation equipment by foreign adversaries. We continue to strongly oppose efforts by Chinese-controlled BYD and its poorly camouflaged subsidiary RIDE to re-enter into the domestic heavy duty transit bus market. Congress took decisive action to prohibit their access to federal dollars through the Transportation Infrastructure Vehicle Security Act, adopted in 2019 as part of the National Defense Authorization Act, and these restrictions must remain and be strengthened.

Lastly, we were disturbed at revelations from Waymo during the full Committee's February 4, 2026 hearing entitled "Hit the Road, Mac: The Future of Self-Driving Cars", in which the company revealed that remote operators in the Philippines were providing guidance to Waymo vehicles operating on American streets. While their technology may make such arrangements possible, there should never be a scenario where an individual outside the United States is able to provide guidance or assert operational controls over vehicles operating within our borders.

AI Applications

In addition to autonomous vehicles, Teamster members are increasingly reporting deployments of AI technologies in our workplaces, including in driver/operator monitoring, safety & health monitoring, H.R. decision making, automated scheduling, task/route assignments and optimization, fleet/operations management, predictive maintenance, productivity/quota metrics and others.

As with all technology, we appreciate that if deployed and regulated appropriately AI tools have the potential to improve safety and working conditions as well as the possibility of job creation. For the purposes of today's hearing, the Teamsters encourage the Subcommittee to consider three policy principles.

- 1. AI must not be weaponized against working people.** The opportunities for the deployment of AI tools in the transportation industry in a manner that is harmful for employees is significant. Surveillance and monitoring tools can present substantial human factors concerns including the effects of micromanagement and constant surveillance on fatigue and stress levels of workers, increased pressure on employees to complete tasks within machine-generated timeframes and performance targets. AI applications that purport to eliminate transportation jobs in their entirety, particularly when no comparable occupation is created by the use of the technology, should be viewed with extreme skepticism.
- 2. AI applications in transportation are a supplement, not a replacement.** AI applications that combine with the experience of highly skilled professional workers with deep experience in their industries will be the most successful. Many Teamster-

represented trucking fleets have deployed AI-powered real time route optimization and guidance to drivers, such as UPS' On-Road Integrated Optimization and Navigation (ORION). When functioning as an additive tool, these products can assist workers in their decision making. However, when employers instead require blind adherence to AI directives under the threat of discipline, and potentially in contradiction to the decision making of professional transportation employees, the value proposition is greatly diminished.

- 3. The most effective applications of AI will be the ones conducted in concert with the impacted workforce.** As mentioned above, the utility of AI tools in transportation can be substantially improved when the workforce who will be operating the tools, or be impacted by them, are provided an opportunity to negotiate over their adoption, and participate in dialogue with their employers about their ongoing use and usefulness.

Rail Technology

Technological advancements in the rail industry present both significant opportunities and challenges, which are directly felt by the members of the IBT-affiliated BLET and BMWED.

Track Geometry Measurement Systems (TGMS)

TGMS systems, also known as automated track inspection (ATI) trace their roots to the 1970s. Today, some of these systems use a suite of technologies including advanced sensors, lasers, and machine vision to identify track defects that may not be visible to the human eye. ATI detects track geometry defects such as elevation, surface, and gauge deviations — a major cause of derailments. These geometry defects can sometimes be detected more precisely by ATI than by manual methods. The usage of these systems is entirely permissible under Federal Railroad Administration's (FRA) existing regulations.

As a foundational matter, we would like to be extraordinarily clear that we support the use of ATI as an essential additive tool to augment twice weekly track inspections which have long been required by the FRA's regulations. In fact, the BMWED has even previously advocated for *mandatory* deployment of these systems. At its most useful, ATI is a supplemental tool that complements visual track inspections carried out by humans.

As they are currently deployed, these systems are only capable of identifying 6 of the 23 regulatory defects which must be evaluated under 49 CFR Part 213. TGMS are incapable at identifying issues with ballast, rail wear, rail joint gaps, tie plate conditions, switch components, vegetation, obstructions in the right-of-way, or any underlying factor causing the listed defects. Simply put, they are not a replacement for human-conducted visual inspections.

Additionally, like all deployments, the safety case for ATI will continue to be made in its actual usage. ATI systems send data to a central location, where it is later reviewed. Once the data is analyzed and defects are prioritized, a human inspector must still verify the defect on-site — potentially delaying repair or remediation for up to 72 hours. This delay introduces avoidable

safety risks. It is also the case that identification of defects alone is of little value if appropriate maintenance is not being performed expeditiously.

The persistence of railroad derailments, averaging three reportable incidents each day, underscores the need for strong federal regulations for our nation's railroads to keep our communities safe. To have the safest rail system, it is critical that railroads utilize both twice a week visual track inspections and automated track inspection (ATI) technology to keep our railroad tracks free from defects that can cause derailments. As the FRA continues to evaluate the performance of ATI deployments, we encourage the FRA to determine if the method by which this technology is now being deployed is resulting in improved safety outcomes.

Finally, where these operations are taking place under the terms of regulatory waivers, FRA must ensure full compliance with all waiver conditions, ensure the validity and accuracy of reported safety data, and dispense with waivers where data has not proven safety equivalency.

Locomotive Operations

Within the last 15 years, new technologies installed in the locomotive cab have substantially changed locomotive operations. This includes PTC, as well as energy management systems such as Trip Optimizer (TO), and increased use and engineer oversight of distributed power units (DPUs) in a train consist. Managing these systems has become an increasingly significant part of the locomotive engineer's job duties.

In particular, the use of TO, a technology similar to cruise control in a passenger vehicle, has become widespread with railroads requiring its use as frequently as 95% of a trip. This software may direct the locomotive engineer or may completely control the throttle of all locomotives used by the train, including DPUs. In the event an engineer attempts to override the TO beyond a set threshold set by management, the worker may now be subject to discipline.

While we do not oppose the use of TO, the extent of its use means that engineers are often spending substantial components of their trip making a reduced number of independent decisions on train operations. When these systems fail, or unique operational circumstances present themselves, an engineer is handed control of the train in difficult situations which test their skills with no little to no warning. We are concerned that the extensive period of time in which an engineer is operating with limited decision making, including but not limited to in TO operations, will ultimately result in deskilling of engineers. This could prove catastrophic in emergency situations. Mandating minimum times spent in manual operations can combat these effects.

Further, the BLET continues to sound the alarm on the use of remote control trains and locomotives (RCLs), which are generally operated without an engineer in the cab. Instead, RCLs are operated remotely by a rail worker who could be a significant distance away from the train and who usually has limited to no visibility of what is in front of the locomotive. Even within the yard environment, this creates dangerous hazards for other rail workers. Disturbingly, some railroads are now running RCL operations through towns and communities on their main tracks and rail sidings which invites unacceptable dangers to the public and should be prohibited.

Federal Role In Transportation Technology

Across all modes, including those subject to the Subcommittee and full Committee's jurisdiction, the Teamsters Union continues to support strong, prescriptive regulations and statutory direction from the Department of Transportation and its modal offices. In trucking, the need for such standards has never been clearer, as the Department both addresses novel technologies like autonomous vehicles and increasingly seeks to address long-term scourges in the industry.

In rail, both the tragedy in East Palestine and conditions in the industry leading up to it make a similar case. Equally as important is that now the wrong time to go backwards on rail safety regulations by embracing "performance based" regulations at the FRA. Performance-based regulations do away with prescriptive requirements in favor of outcome targets and allow regulated entities to determine how they will demonstrate compliance.

Despite claims to the contrary, FRA's regulations on key safety requirements were not drafted flippantly. They were promulgated in response to real safety issues, including those which have had tragic consequences for our members and the general public

Allowing railroads, by virtue of their own in-house metrics, data, and reporting to determine if they have accomplished safety outcomes will not inspire innovation – it will instead bring unacceptable and unchallengeable risks to rail workers and the general public. We acknowledge that there are specific applications of performance-based rulemaking regimes that work well in differing agency and industry structures, but mandates requiring performance-based regulations are wrong for the FRA. Performance based regulation only works when the results achieved reflect mandated outcomes – this will not be the case in this industry. And when they do not, it will be our members who suffer.

Finally, regardless of the content of a regulation, or how compliance is accomplished, it is essential that the Department of Transportation has the resources to address both ongoing compliance with existing regulation and the need to promulgate and enforce new regulations. This is particularly salient as these efforts relate to the deployment of new transportation technologies as they impact our members, the American worker broadly, and the public.

The International Brotherhood of Teamsters thanks the Subcommittee for the opportunity to testify today. We look forward to continuing to work together on a bipartisan basis including during the upcoming surface transportation reauthorization.

