

**SUBMITTED STATEMENT OF
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**BEFORE THE TRANSPORTATION AND PUBLIC SAFETY COMMITTEE
OHIO HOUSE OF REPRESENTATIVES**

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Good morning Chairman Green, Ranking Member Sheehy, and members of the Transportation and Public Safety Committee. My name is Andrew Jordan and I am the President of the Transport Workers Union Local 208, headquartered in Columbus. Local 208 was established in 1941 and represents more than 800 Ohioans who are employed by the Central Ohio Transit Authority, commonly known as “COTA.” We are part of the Transport Workers Union of America, which represents 140,000 workers in the transit, rail, airline and gaming industries.

I greatly appreciate the opportunity to testify before you today on a matter that is of utmost importance to Local 208 members, particularly our 650 bus drivers and 120 maintenance workers. That matter, of course, is autonomous - or driverless - vehicles. The development and introduction of driverless technology to American roadways is also an issue of interest and concern to the millions of Americans around the country who earn a living by driving and maintaining large commercial vehicles.

Across the US, driverless vehicles are being tested, and many believe that fully autonomous vehicles will be increasingly used on our roads within the next 5 years. While much of these efforts have focused on driverless personal cars, driverless commercial vehicles – including buses and trucks – also are being developed and tested on roadways. These technological advances will have a significant impact on driving occupations, including bus and truck drivers and those who repair and maintain those vehicles. The Council of Economic Advisors estimates that between 2.2 and 3.1 million existing full- and part-time jobs may be substantially altered or eliminated due to autonomous vehicle technology. Some estimate that more than 4 million driving jobs – many of which are relatively well-paid – will be impacted.

We are not opposed to advanced technology and understand the position of those who advocate for driverless vehicles as a means of increasing access to transit options for seniors and members of the disability community. As a bus driver for 15 1/2 years, I can tell you that incorporating new technologies into our work isn’t new. For example, COTA buses have added features that make automated stop announcements and provide turn-by-turn route directions. But when the automated bus stop announcement technology was first implemented, for example, it identified bus stops incorrectly for half of the route. Without an operator to make verbal announcements, passengers did not know what stop they were at. Similarly, we question the capacity of driverless vehicles to compete with the service provided by transit vehicles operated by human beings. We also question

the presupposed safety of this technology and caution against trading human error for computer error.

Driverless technology has the potential to drastically and rapidly change the public transit industry. It is incumbent upon governments and transportation authorities to ensure, as they consider introducing driverless vehicles to public transit systems, that both workers' jobs and public safety are protected.

There are about 17,000 bus drivers in Ohio – almost 6,000 of whom provide transit or intercity service. About 10 percent of those drivers are Local 208 members who work for COTA. Nationwide, nearly 170,000 Americans drive transit or intercity buses for a living. A recent report from the White House estimated that the introduction of driverless vehicles could eliminate 60 to 100 percent of those jobs. That's thousands of bus drivers who potentially stand to be displaced by technology. That's thousands of Ohioans who serve their communities and invest their paychecks back into our state who could see their jobs vanish. And we're talking about good, middle class paychecks.

Bus drivers' wages are relatively good, especially for an occupation that does not require a college degree. In Ohio, the median wage for bus operators is 23 percent higher than the overall median wage. The top wage for an operator at COTA is \$28 per hour – 63 percent higher than the overall median wage in the state.

And we're not talking about nameless or faceless workers losing their jobs. They're the familiar faces we see during our daily commutes; our rides to the grocery stores. They're your constituents.

We've heard industry associations say our concerns for drivers losing their jobs are overblown. We've been told that fully automated vehicles are years away, and in the interim, drivers will still be needed. Therefore, we shouldn't worry.

Well, in its "Smart City Challenge" application, the city of Columbus wrote that "a major benefit of a fully autonomous vehicle is the reduction in cost achieved by eliminating the operator and all onboard equipment necessary for human operation..."

That seems pretty clear to us: those buses are intended to operate without drivers.

While COTA and other transit authorities and municipalities may see short-term financial benefits from displacing drivers, policymakers must consider the negative economic impact of drivers left without jobs and the integral role drivers play in keeping public transit safe.

If bus drivers lose their jobs they face the prospect of low-wage employment or unemployment and the potential reliance on public benefits, which put both their economic security and their dignity at risk. And not only they, but their families and their local communities as well could suffer devastating economic hardship.

Some argue that jobs that disappear due to new technology will be replaced by new jobs created by technology. That may be true in some cases, but there is no guarantee that the new jobs will be

located where the old jobs were or that displaced workers will receive the training and education necessary to access them. Also, market disruptions from automation and trade in recent decades have had extensive and long-lasting negative effects on unemployment, wages, and labor force participation. As a result, workers who lose jobs – on average – find that their wages and benefits are permanently reduced. Because African Americans are over-represented among bus drivers, the African American community is more likely to suffer the impacts of the introduction of driverless buses.

Ohio has the fourth-highest unemployment rate in the country (5.1%) and that rate has increased over the last year. African Americans make up a disproportionate share of the unemployed in our state. We can't sustain the loss of thousands of well-paying jobs that have helped blue collar workers – your constituents – gain access to the middle class.

While job loss is a serious concern, public safety is just as important.

Much has been made of the expectation that driverless vehicles will eliminate human error and therefore improve safety and reduce highway deaths. While advances in technology are made every day, we've seen instances where advanced and driverless technology has failed, resulting in accidents – some fatal. Still, some states are amending laws and regulations to allow technology and auto companies to test driverless passenger cars on their roads.

We want to make clear a significant distinction: commercial vehicles, such as transit buses, are not passenger cars. Transit buses can carry dozens of passengers, even more than 100 passengers at once. These vehicles weigh tens of thousands of pounds. If these vehicles are equipped with driverless technology and that technology fails, the destruction to life and property will be significantly greater than that caused by a failed driverless passenger car. Commercial vehicles therefore warrant special consideration to ensure they continue to operate safely.

To ensure safety, policy makers must consider issues related to when drivers and maintenance workers are interacting with this technology. Building a safe work environment must include how and what type of training employees should receive if their work involves interacting with advanced technologies. This includes consideration for the training needed by both bus operators and the maintenance workers who repair and maintain buses. Making sure that transit agencies have the necessary equipment to evaluate, conduct diagnostic tests, and repair and maintain buses equipped with advanced technology is crucial. Understanding what responsibilities workers have in the operation of vehicles equipped with advanced technology is fundamental to its safe deployment in the workplace. Finally, learning how driverless vehicles and equipment work and what human actions are required when those systems malfunction or get hacked is necessary for mitigating or preventing accidents when technologies fail and human response is required.

Moreover, policymakers must address the concern that driverless technology has proven vulnerable to intentional hacking of the driverless vehicle's computer system. With no human operator or secondary mechanical operating system on board, passengers and other motorists, as well as cyclists and pedestrians, could be at serious risk of harm from an out-of-control bus. Given the recent spate of terrorist incidents using vehicles as weapons and the ever-increasing

sophistication of cyber criminals, it just doesn't make sense to have buses on our streets with no one prepared to take over in a worst-case scenario.

Since Local 208's founding over 75 years ago, our slogan has been "A Bus is Nothing Without Us." And we still believe that. Each day, bus operators transport millions of passengers from place to place. But, operators do so much more than make the bus move.

We help seniors, the physically challenged, moms with strollers, and passengers laden with bundles safely board and exit the bus. We secure wheelchairs, provide route or transfer information and give directions. A driverless bus can't do that.

Bus operators also watch out for and report – and sometimes prevent – criminal activity. We're the eyes and ears both on the bus and along out routes, helping to protect our communities by alerting law enforcement when we see problems. I don't see how a driverless bus could do that either.

For all these reasons, we believe bus operators should remain on the buses. Even if they are not performing their traditional role of driving the bus, they need to be there to ensure everyone's safety.

As the "Smart Cities Challenge" winner, Columbus can serve as a model for how to introduce smart transportation technology in a manner that ensures the protection of both jobs and public safety. But, it is essential that workers are involved in the process. Too often, employers make changes in the work place – including implementing technology – without seeking input from workers. Almost invariably, these changes negatively impact workers and the communities they serve.

We appreciate that the TWU is being included in this important process the legislature is undertaking and our union will continue to engage on the issue of driverless vehicles at both the state and national level. We won't stand idly by as jobs are eliminated, wages stagnate, and the middle class continues to deteriorate.

Driverless vehicle technology is here. Billions of dollars are being invested in its development. There's no stopping it. But, the timing of and means by which this technology is implemented is a deliberate policy decision. As legislators, you have a role to play in striking a balance between advancing new technology and protecting both the jobs of the working people you represent and the safety of all your constituents. We look forward to working with all of you to ensure that workers and public safety remain at the forefront of this process. Thank you for your time and attention.