



U.S. House of Representatives  
Committee on Transportation and Infrastructure  
Subcommittee on Highways and Transit

Hon. Eleanor Holmes Norton, Chairman

Hon. Rodney Davis, Ranking Member

Testimony of:

Mr. Jay Bruemmer, Chairman, Government Relations Committee  
American Traffic Safety Services Association

April 9, 2019

Chairman Holmes Norton, Ranking Member Davis, and members of the Subcommittee, thank you for the opportunity to testify today on behalf of the American Traffic Safety Services Association (ATSSA) on how investing in and improving the safety of America's roadway system impacts each and every one of us. I currently serve as Chairman of ATSSA's Government Relations Committee. I am also a past member of the ATSSA Board of Directors, past President of the ATSSA Chapter Presidents' Council and past President of the Heart of America Chapter of ATSSA (comprised of Kansas and Missouri). ATSSA is a 1,500+ member international trade association which represents the manufacturers, installers and distributors of roadway safety infrastructure devices and services such as guardrail and cable barrier, traffic signs, pavement markings, rumble strips, high friction surface treatments, and work zone safety devices, among others. Our mission is to *Advance Roadway Safety* and reduce fatalities and serious injuries on U.S. roads toward zero.

Professionally, I am the Vice President of K & G Striping Inc., a Riverside, MO-based contractor focused on pavement marking, traffic sign installation, and traffic control. K & G Striping has been a contractor in the Midwest since 1982, incorporated in 1989, and now serves Johnson County, Jackson County and the greater Kansas City metro area. If you're driving through western Missouri and find yourself in a roadway work zone, chances are you will see our trucks doing the work. In fact, Ranking Member Sam Graves represents our office here in Congress.

Congratulations to Chairman DeFazio, Ranking Member Graves, Chairman Holmes Norton, and Ranking Member Davis on your new leadership positions on the Committee and Subcommittee, and thank you for holding this critically-important hearing. The timing of this hearing coincides with National Work Zone Awareness Week, honoring those who have lost their lives in roadway work zones and spreading awareness for the need to enhance safety in work zones around the country. In 2017, 799 people were killed in work zones, which includes both motorists and workers.

We hear it almost every single day – that transportation safety is the number one priority. Members of Congress, the Executive Branch, businesses, states, local governments and users of the transportation system all talk about the importance of safety programs. But sometimes, the need to invest in safety infrastructure is easy to overlook or take for granted. But with more than 37,000 men, women and children being killed on U.S. roads annually, and from personal experience of working in roadway work zones, we cannot allow safety to ever become an afterthought or second priority. Period.

According to the National Highway Traffic Safety Administration (NHTSA), 37,133 individuals were killed in motor vehicle crashes in 2017. This is truly a horrifying statistic; however, the glimmer of hope is that this was a reduction from 2016 by approximately 2%.<sup>1</sup> Additionally, preliminary 2018 data indicates that this decline in fatalities is potentially continuing.<sup>2</sup> For me and the men and women employed by K & G Striping, this number hits very close to home, especially when you consider that in 2017, 799 of those fatalities occurred in work zones. Imagine yourself working on a road construction project, and passenger vehicles and motor carriers are traveling at 50, 60, 70+ miles per hour only feet from where you are working. You might be protected by a steel or concrete barrier, but you might just have some

---

<sup>1</sup> NHTSA 2017 Fatality Data - <https://www.nhtsa.gov/press-releases/us-dot-announces-2017-roadway-fatalities-down>

<sup>2</sup> NHTSA Preliminary 2018 Fatality Data - <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812629>

plastic cones and barrels separating you from thousands of pounds of speeding steel. I know from personal experience how terrifying this can be.

When I was 18 years old, one of my first projects working on the interstate was on I-70 between Lawrence and Topeka. We were installing temporary pavement markings behind a lane closure to prepare to switch traffic to head to head on the eastbound lanes. While putting down reflective markers, I looked up to see a semi-truck, which had not seen the lane closure in time, knocking over channelizers in the taper and headed directly toward me. I had just enough time to stand up, and take one step back before the wind blew me off my feet. When I stood back up, I saw the tire tracks through the tar I had put down for the next marker I was going to install. Had I not been lucky enough to look up when I did, the outcome would have been catastrophic. At the age of 18, I learned firsthand two incredibly important lessons: that I was not invincible and the importance of safety while working on the road. Years later when I became the owner of our business, I repeatedly used this experience to remind myself that the safety of my employees must be my primary concern.

In 2005 as part of the SAFETEA-LU legislation, Congress authorized the Highway Safety Improvement Program or HSIP, and subsequently reauthorized that program in 2012 in MAP-21 and again in 2015 under the FAST Act. The HSIP program is the sole federal highway program focused on roadway safety infrastructure. Over the lifetime of the FAST Act, HSIP is authorized at approximately \$12.5 billion, including set asides for the Work Zone Safety Grant and the Railway-Highway Crossings Program. States – which are responsible for the safety on all public roads, not only state-owned roads – are able to utilize these funds for eligible activities under HSIP. However, states are also allowed to transfer up to 50% of their HSIP allocations to other core federal-aid highway programs - such as the National Highway Performance Program, Surface Transportation Block Grant Program, Transportation Alternatives, National Highway Freight Program, and the Congestion Mitigation and Air Quality Improvement Program and vice versa.

And states have opted to utilize these transfer provisions. Under MAP-21 and the FAST Act - as of September 30, 2018 - 24 states transferred HSIP funds to other programs, totaling approximately \$1.2 billion. Given the importance of safety and the need for safety to remain a priority area of investment, ATSSA calls on Congress to eliminate, or at the very least, reduce the percentage of funds that can be transferred out of HSIP to ensure that roadway safety infrastructure funds are being utilized on roadway safety infrastructure projects.

Additionally, in MAP-21, Congress ensured that funds from the Highway Safety Improvement Program (HSIP) could only be used for eligible roadway safety infrastructure projects under HSIP. We urge the committee to continue this language as part of the FAST Act reauthorization.

Mitigating driver behavior is a perennial challenge for transportation leaders; however, the roadway safety infrastructure industry has innovated and deployed cost-effective countermeasures to combat negative driver behavior. Here are a few examples.

### ***Wrong-Way Driving***

Although not incredibly frequent, wrong-way driving crashes are often catastrophic when they do occur, especially on highways and high-speed roads. There are several countermeasures that work to address this issue, namely signage, markings and LED lights on signs. However, road owners can also opt to

utilize intelligent transportation systems, in conjunction with signs, to combat wrong-way driving. These systems detect a wrong-way driver and inform both the driver and law enforcement about the incident.<sup>3</sup>

### ***High Friction Surface Treatment***

High friction surface treatments (HFST) are an example of an infrastructure safety countermeasure that does not require the driver to make behavioral changes in order to have a positive safety impact. These treatments are applied to high risk crash locations such as intersections or curves. Durable aggregate (usually bauxite) is applied to the road surface and bonded using a polymer binder. In 75 locations in Kentucky where HFST were applied, roadway departure crashes decreased by 91% in wet conditions and 78% in dry conditions.<sup>4</sup>

### ***Pedestrian and Bicycle Safety***

In 2017, 5,977 pedestrians were killed in roadway crashes across the United States. In 2016, there were 840 bicyclists killed in roadway crashes. There are roadway safety infrastructure solutions that help protect both vulnerable users and motorists, including dedicate bicycle lanes with green pavement markings and flexible delineators as well as retroreflective crosswalks for pedestrians. One countermeasure focused on pedestrian safety is the Leading Pedestrian Interval Plus (LPI+), which allows the pedestrian to begin crossing the street before traffic is allowed to move. Studies have shown that LPIs can reduce vehicle-pedestrian crashes by as much as 60%.<sup>5</sup>

### ***Smarter Work Zones***

As I mentioned, this week being National Work Zone Awareness Week, it is a crucial moment to talk about safety in work zones. Work zones are inherently dangerous areas, and the safety of the men and women working on the road is paramount. Making work zones smarter, safer, and more efficient will decrease fatalities and serious injuries for both drivers and workers. Smarter work zones can mean intelligent transportation systems, data collection and usage, project coordination, and stakeholder engagement, among many other activities. In Washington, DC, the District Department of Transportation (DDOT) realized that multiple road construction projects in the city were having interrelated impacts on road users. So in response, DDOT created a comprehensive, software-based work zone project management system which brought together roadway, utility, and developer construction activities which identified and lessened public right-of-way conflicts. The top goals of this approach were to minimize work zone location conflicts and impacts and improve safety and mobility within the work zones. A web-based work zone tracking application was used to gather all the data and then send that data to project coordinators to alert them of possible conflicts.<sup>6</sup>

### ***Barrier***

Barrier is used either in a median or on the roadside to protect vehicles from leaving the road and impacting other fixed objects or on-coming traffic. Systemic devices such as barrier are critically important to the safety ecosystem of a road network. This is especially true in rural areas where, according to 2016 Federal Highway Administration (FHWA) data, 30% of total vehicle miles traveled occurred, yet 50% of roadway fatalities also occurred. Fatalities on rural roads are disproportionately

---

<sup>3</sup> "Improving Driver Behavior with Infrastructure Safety Countermeasures" ATSSA case study publication, 2015

<sup>4</sup> "Improving Driver Behavior with Infrastructure Safety Countermeasures" ATSSA case study publication, 2015

<sup>5</sup> "Traffic Control Device Innovations to Improve Pedestrian and Bicycle Safety at Signalized Intersections" ATSSA case study publication, 2019

<sup>6</sup> Smarter Work Zones: Project Coordination and Technology Applications, ATSSA case study publication, 2016

high. Over a four-year period, the Minnesota Department of Transportation installed cable barrier in 31 segments along 150 miles of roadway. In the three years prior to installation of the cable barrier, there were 19 fatal cross-median crashes. In the three years following installation, there were zero.<sup>7</sup>

We know that these countermeasures work. Through the use of dashboard cameras, we can see how effective roadway safety infrastructure can be. For example, this website shows footage from a camera affixed to a tractor-trailer truck on a highway. The video captured the image of another tractor-trailer truck nearly colliding head-on but the crash being mitigated by cable barrier.

<https://drive.google.com/file/d/1L-5egeInhrJgB9pZO14PtObM7tYQk11D/view>

### ***Wider, High Visibility Pavement Markings and CAVs***

Some countermeasures are seemingly commonsense, but they have lasting positive impacts not only for today's human drivers, but also for connected and automated vehicles into the future. A Texas A&M Transportation Institute (TTI) study found that wider pavement markings in Michigan reduced fatal and injury crashes by nearly 25%, nighttime crashes by nearly 40% and nighttime crashes in wet conditions by more than 33%.<sup>8</sup> A 2011 study of Missouri roads found that wider pavement markings had a positive safety impact in reducing fatal and serious injury crashes, including: a 46% reduction on rural, multilane undivided highways; a 38% reduction on urban, two-lane highways; and a 34% reduction on rural, multilane divided highways.<sup>9</sup>

We know that wider pavement markings have positive safety benefits, especially for older drivers. But the question arises of whether or not wider markings assist vehicles equipped with machine vision/connected and automated vehicles (CAVs). A separate TTI study finds that the answer is yes. In February 2017, BMW's President and CEO-North America testified that clear lane markings were a critical component to a transportation network that was ready to deploy CAVs.<sup>10</sup> Additionally, TTI undertook a separate study in 2018 which looked at wider pavement markings and CAVs. This study found that wider markings, under adverse conditions, consistently improved machine vision detection. Adverse conditions include: crack seal, pavement seams, scarring, "ghost" lines from previous markings, and glare.<sup>11</sup>

With that said, we believe that full deployment of CAVs is still some time away. The average age of a vehicle in the U.S. is 11.5 years old, and according to 2017 data, the median household income in the United States is \$61,372.<sup>12</sup> In each congressional district, there are families who make below this average income line. And even for families who have a household income above the median, we need to recognize the fact that most families will not want to purchase a new car until they feel it is time for them to do so. It is hard to believe that, even once CAVs are readily available, families will be able to or necessarily want to immediately rush to their car dealer to purchase one of these new CAVs. It is important that we understand these realities when planning for the expanded deployment of these technologies.

---

<sup>7</sup> "Preventing Vehicle Departures from Roadways" ATSSA case study publication 2015

<sup>8</sup> "Improving Driver Behavior with Infrastructure Safety Countermeasures" ATSSA case study publication, 2015

<sup>9</sup> "Innovative Safety Solutions with Pavement Markings and Delineation" ATSSA case study publication, 2016

<sup>10</sup> <https://www.enotrans.org/article/two-decades-congress-still-pushing-21st-century-infrastructure/>

<sup>11</sup> "Evaluation of the Effects of Pavement Marking Width on Detectability by Machine Vision: 4-Inch versus 6-Inch Markings" October 2018 Texas A&M Transportation Institute

<sup>12</sup> U.S. Census Bureau Data - <https://www.census.gov/library/stories/2018/09/highest-median-household-income-on-record.html>

### ***Safety Funding***

None of these safety priorities can be achieved without a solvent, robustly-funded Highway Trust Fund. Continuing to spend more from the Highway Trust Fund than is collected through taxes and fees is not a long-term solution. We need to address these deficiencies. In that regard, we strongly support an increase to user fees to address the long-term viability of the Highway Trust Fund, which include increasing and indexing the motor fuels user fees, an eventual move towards a vehicle miles traveled user fee system, and where it makes sense, the use of public private partnerships (P3s).

We view P3s as a separate issue from the Highway Trust Fund solvency. Increasing the use of P3s does not address the underlying fiscal cliff of the Highway Trust Fund. As we consider an infrastructure package and a FAST Act reauthorization, the Administration and Congress must grapple with the fact that increased direct federal investments are crucial to the rebuilding and safety of America's roadway network.

With any increase in revenue for the Highway Trust Fund, ATSSA calls on Congress to double the size of the Highway Safety Improvement Program to at least 10% of the overall core federal-aid highway programs so that we can aggressively combat fatalities and serious injuries on U.S. roads and expand the use of cost-effective, life-saving roadway safety infrastructure countermeasures.

In conclusion, as a nation, we have made great strides in all aspects of roadway safety: behavioral, vehicle, emergency response, and infrastructure. As we move into the third decade of the 21<sup>st</sup> century, we must continue to press forward with safety and not let it slip from our top priority. Roadway safety infrastructure and the Highway Safety Improvement Program are a key piece of the safety puzzle, and this Subcommittee has the opportunity and responsibility to lead the charge in reducing fatalities and serious injuries on our nation's roads.

Thank you again for the opportunity to testify today. I look forward to answering any of your questions.