



ITE FAST ACT REAUTHORIZATION SAFETY WHITE PAPER

Significantly Reduce Deaths and Injuries

No loss of life on our surface transportation system is acceptable.

Today, in the United States more than 100 lives per day are lost and millions of serious injuries are inflicted as a result of traffic crashes. Our traditional approaches have not succeeded in appreciably reducing these numbers in recent years. Motor vehicle crashes are the leading cause of death for teenagers. Rising fatality rates among vulnerable road users are borne disproportionately by lower income populations and communities of color. Every life lost along our nation's roadways happens with a cause; these are not accidents. For too long we have treated traffic violence as inevitable.

As transportation professionals bound to ethical obligations for safety, ITE members are joining a growing movement calling for the Safe System approach to transportation safety, a completely new safety philosophy in this country. The Safe System approach to transportation system planning, design, and operation accepts that humans make mistakes and that we can build buffers and tolerances into the system to prevent deaths and serious injuries that may result from these mistakes. ITE calls for the establishment of a new federal initiative with any future long-term federal surface transportation legislation dedicated to *significantly* reducing the number of surface transportation fatalities and injuries, consistent with the philosophy of Vision Zero.

The federal authorization process provides authority for operation and outlines funding for transportation. Authorizations from the Federal-Aid Road Act of 1916 to the current Fixing America's Surface Transportation (FAST) Act of 2015 have all had the underlying focus of safety. Most notably, the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) of 2005 n emphasis on safety, and the Moving Ahead for Progress in the 21st Century Act (MAP-21) of 2012 was an interim authorization to continuing investments in highway, transit, and safety programs. With the FAST Act expiring, it is now time to consider a reauthorization with safety as a driver for

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This new initiative should provide guidance and funding to enable the most effective deployment of all of the existing and new tools at our disposal

ITE Reauthorization Principles

New tools and concepts that should be incorporated in this initiative include new technologies such as connected and automated vehicles, Vision Zero, complete streets, driver behavior laws, and new data collection and analysis tools, among others,

Vision Zero is built upon a shift in approach from one that accepts a certain amount of traffic deaths and severe injuries to one that affirms these deaths and injuries are preventable.

investment, and prioritize saving lives in transportation authorization, planning, and investment decisions.

Broaden Our Safety Perspective

Additionally, future federal action must recognize and broaden the nation's perspective towards transportation safety:

- Transportation safety is a public health issue. In addition to the more than 36,000 deaths in 2018, millions more were injured on our nation's highways. In addition, emissions from the transportation sector further impacts public health, and is an ever-increasing contributing factor to climate change.
- Transportation safety is a social equity issue. A child is twice as likely to be killed walking along our nation's roadways if they are black instead of white. Safe mobility is a fundamental human right; transportation professionals are ethically bound to strive for mobility justice and should do so with safety as our modus operandi.
- Transportation safety is an economic issue. The burden on taxpayers to address increased emergency response and long-term healthcare costs resulting from roadway crashes is immense. The economic windfall that could be devoted to more productive uses if these incidents were reduced by even a small percentage is economically prudent.
- Transportation safety is a livability issue. The fear for personal safety leads many to choose motorized mobility options, or to not leave home at all. The rise of sedentary diseases, and reduction in cognitive capacity and respectful social exchange all ensue.

Pursue a Vision Zero Safe System Approach

Vision Zero emphasizes a Safe System approach, which recognizes that human beings are fallible. We should not be designing and operating a surface transportation system predicated upon the perfection of human behavior. We know humans will inevitably fail. People make mistakes; our transportation system needs to be resilient enough that when we do fail it does not result in a loss of life or severe injury.

In 1970, the U.S. and the Netherlands had a similar traffic fatality rate of 250-256 fatalities per million population. Since that time, the Netherlands has led with the implementation of a Safe System approach to investment in the transportation system. In the years that followed, they have witnessed dramatic reduction in their fatality rate, significantly outpacing the reduction in the U.S. Had the U.S. implemented a similar approach at that time and seen comparable results, we could be saving 20,000 lives per year from current levels.

Support establishment of a strategic research program to inform a new federal initiative dedicated to significantly reducing the number of surface transportation fatalities and injuries.

Supports an increased funding focus on vulnerable users

Any new federal initiative that is predicated upon a Vision Zero approach must be backed by a public, high-level, and ongoing commitment from our elected leaders. ITE calls on the President and Congress to make this commitment and proclaim the only acceptable number for the loss of life in the transportation system is zero.

Establish a Strategic Research Program for Safety

The Strategic Highway Research Program (SHRP) and SHRP2 were both years-long national efforts to consider strategic highway transportation research needs. The first SHRP was a \$150 million program over five years which focused on highway infrastructure needs: better materials, longer-life pavements, and cost-effective maintenance. The program allowed the United States to better construct and maintain its roadway infrastructure. SHRP2 focused on operational changes that would improve highway safety, reduce congestion, and improve methods for renewing roads and bridges (Strategic Highway Research Program 2). Both iterations resulted in hundreds of research projects, suggested improvements, and products for the transportation industry.

ITE supports the establishment of another strategic highway research program that focuses on surface transportation safety issues. This new program should provide evidence-based research to enable the most effective deployment of all of the existing and new tools and approaches at our disposal, including Vision Zero, complete streets, driver behavior laws, operational measures, new data collection and analysis tools, and measures to protect the most vulnerable road users. The federal government should work with all transportation and land use stakeholders to develop and implement all possible tools and concepts to significantly reduce traffic deaths and injuries, and make our transportation network safer for all people.

Protect Vulnerable Users

Vulnerable users experience a greater risk of injury and death during traffic collisions. Approximately 1.35 million fatalities occur each year on the world's roads and more than 50 percent of them are pedestrians, bicyclists, and motorcyclists¹. While the number of traffic fatalities has decreased slightly in the United States in recent years overall, the number of fatalities in collisions involving

¹ Global status report on road safety 2018. Geneva: World Health Organization; 2018. Licence: CC BY-NC-SA 3.0 IGO

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pedestrians (3.4% increase), bicyclists (6.3% increase), and larger vehicles (0.8% increase) increased between 2017 and 2018.²

The presence of sidewalks, bicycle lanes, street lighting, a smooth roadway surface, and the reduction/elimination of roadside hazards, can greatly improve safety for vulnerable users. Improvements that provide separation between pedestrians, bicyclists and vehicles on roadways should continue to be included in the list of projects that could be funded by the Highway Safety Improvement Program (HSIP).

Allow Flexible Use of Highway Safety Improvement Program Funds

ITE supports restoring the flexibility to use Highway Safety Improvement Program funds on any safety project (infrastructure-related or non-infrastructure) that meets the overarching requirement that “the funds be used for safety projects that are consistent with the State’s strategic highway safety plan (SHSP) and that correct or improve a hazardous road location or feature or address a highway safety problem.”

HSIP is a core federal aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. HSIP was established in 2005, as part of the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU). The development of the HSIP program approximately doubled the funds for safety projects, allowed for additional funding flexibility, and required a focus on results. HSIP is one of the most recent programs to have been developed in a long line of Federal safety efforts, starting with the Highway Safety Act of 1966.³

Historically, the structure of the HSIP has led transportation safety practitioners to focus primarily on locations with a history of fatal crashes, and to develop reactive safety countermeasure projects for funding and implementation of projects at these sites. This long-standing practice was reinforced by Federal agencies’ performance goals focusing on fatal crash reduction through roadway design changes. In a paradigm shift that is now being embraced by FHWA, the Safe System approach acknowledges that this reactive, design-oriented emphasis on fatal crash reduction should be a part of the

² National Center for Statistics and Analysis. (2019, October). 2018 fatal motor vehicle crashes: Overview. (Traffic Safety Facts Research Note. Report No. DOT HS 812 826). Washington, DC: National Highway Traffic Safety Administration

³ <https://safety.fhwa.dot.gov/hsip/resources/fhwasa09029/fhwasa09029.pdf>

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process, but not the exclusive focus. The Federal Funding Reauthorization should therefore envision the HSIP program to support the Safe System approach, restoring the flexibility to use HSIP funds on a broader variety of safety projects.

With this restored flexibility, HSIP funds could be used to support implementation of projects focused on safe road user (e.g. behavioral, education, and enforcement-focused) countermeasures. Alternatively, stronger coordination between the HSIP program and NHTSA-funded programs focused on safer road users could help ensure that states and local jurisdictions are able to implement a strategic, multi-pronged approach to addressing safety issues that includes both roadway design features and other programs focused on mitigating the same high-risk factors systemically across the roadway network. As research permits, safe road user-focused countermeasures should be included in the list of FHWA Proven Countermeasures.

Research New Technologies for Safety

With human error a contributing factor in the vast majority of vehicle crashes, new technologies such as connected/automated vehicles have the potential to significantly reduce the number of deaths and injuries on our nation's highways. A new strategic research program should be established to conduct the fact-based, accelerated research needed to inform policy in order to deploy these fast-developing technologies in a manner and timeframe to meet long-term goals. Chief among these goals should be increasing safety.

States and local jurisdictions are already host to smart technologies and some are even pilots for automated vehicles. Agencies must continue to prepare and adapt for art and connected technologies. For example, in California, "emerging technologies" is included as one of the "safety Es" in the 2020 Strategic Highway Safety Plan (SHSP). Federal Reauthorization can encourage the widespread adoption of this emphasis in both development of new SHSPs, as well as in funding eligibility for HSIP of connected vehicle or automated vehicle efforts that support systemic safety – from upgrading lane striping to investments in ITS.