









USDOT Summit on Pedestrian Safety Virtual Series

A SUMMARY REPORT



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OVERVIEW

While the vehicle occupant rate decreased, pedestrian fatalities increased from 4,109 in 2009 to 6,283 in 2018, a 53 percent increase and the highest number of pedestrian fatalities since 1990. There are some signs the trend may be reversing. In 2019, pedestrian fatalities decreased by 2 percent. More needs to be done to keep the trend moving in the right direction. That is why the U.S. Department of Transportation (USDOT), led by the Federal Highway Administration (FHWA) and the National Highway Traffic Safety Administration (NHTSA), conducted a national dialogue on pedestrian safety through three webinars that focused on the safe system approach; the when, where, who, and how of pedestrian risk; and next steps.

The "Taking Action on Pedestrian Safety" summit was conducted virtually given the current health situation in the U.S., with webinars on July 8, July 15, and July 28. Agendas for each of the webinars appear in the Appendix. Approximately 1,000 people registered for each of the webinars, and of those who joined:

- Thirty-five percent worked for State government.
- Thirty-nine percent indicated that their role in advancing pedestrian safety involved implementing policies, programs, and procedures.
- Forty-five percent said street design and technology was the most significant challenge, and/or opportunity, in making progress on pedestrian safety. The next highest was speed management, along with enforcement, laws, and regulations.
- Forty-six percent believe street design and technology will lead to the biggest long-term gains in pedestrian safety improvements which is a major focus for the efforts being conducted by FHWA and NHTSA. Specifically, road diets, traffic calming, HAWKs (traffic signals that allow pedestrians to cross the road safely), and the adoption of Complete Streets policies were mentioned.

WEBINAR SUMMARY

July 8 Webinar – The Safe System Approach

USDOT Secretary Elaine L. Chao opened the summit on July 8, 2020 by noting that over the last decade, the U.S. has achieved significant gains in traffic safety reducing a fatality rate that was four times higher in 1972 through "better infrastructure, technology, research, and improvement in road user behavior as well as traffic law enforcement and better emergency medical services." However, the Secretary also noted that while "the vehicle

"State and local transportation leaders and nongovernmental safety organizations are essential partners in this ongoing mission to save lives and reduce injuries on our nation's roads. We all share a deep commitment to reduce the incidence of traffic crashes involving pedestrians."

Elaine L. Chao,

Secretary, U.S. Department of Transportation



"It's very encouraging to see the creativity, determination and commitment to safety remaining strong and steady. The work we do today and in the upcoming webinars in this series will help us shape the future of pedestrian safety nationally."

Mala Parker, Deputy Administrator, FHWA occupant fatality rate declined in recent years, the pedestrian fatality rate increased."

One outcome of the summit was to finalize the USDOT Pedestrian Safety Action Plan which will help FHWA, NHTSA and other agencies to implement solutions and advance actions between now and December 2021 to reduce the number of pedestrian deaths and serious injuries. Mala Parker, Deputy Administrator for FHWA, noted the Agency is "promoting cost-effective countermeasures with known pedestrian safety benefits" including "rectangular rapid flashing beacons, leading pedestrian intervals, raised crosswalks and pedestrian crossing refuge islands." Pedestrian hybrid beacons can, she said, reduce pedestrian fatalities by 90 percent. She went on to announce the creation of a new resource, the STEPS (Safe

Transportation for Every Pedestrian) studio, which includes resources, design information, guidance, research, and best practices to improve pedestrian safety.

James C. Owens, Deputy Administrator for NHTSA, reminded participants that "at some point in the day we are all pedestrians," but cautioned that "not every community is designed with pedestrians in mind." NHTSA, he said, will be launching the first every pedestrian safety month campaign in October 2020. "Each week will focus on activities to keep the walking public safe. Campaign materials and messages will be available to download at the traffic safety marketing website, www.trafficsafetymarketing.gov," he said.

The July 8 webinar featured two speakers from safety partner organizations. The first speaker was Patrick McKenna, President of the American Association of State Highway and Transportation Officials (AASHTO) and the Director of the Missouri Department of Transportation, who noted everyone has a role in making the transportation system safer for all users by looking "not only for the long-term and exciting technological solutions, but also more immediate fixes." He highlighted some of the notable pedestrian safety actions underway across the country. Kansas, he said, "recently began the development of a comprehensive transportation plan to address the needs of pedestrians, bicyclists and other users." He also noted that Virginia updated its pedestrian safety action plan to include ways to prioritize areas for improvements using a multidimensional health opportunity index at the Census tract level. Ohio DOT, he said, also developed an action plan that includes "improvements in cities with higher pedestrian crash numbers and a streamlined process to develop and construct projects in a shorter time."

The second speaker was Chuck DeWeese, Chair of the Governors Highway Safety Association (GHSA) and Assistant Commissioner of the New York Governor's Traffic Safety Committee. He explained that GHSA represents State Highway Safety Offices (SHSOs) that are "already implementing behavioral programs to better protect walkers" including public information campaigns to promote driver awareness of pedestrians as well as efforts aimed at laws. He went on to describe a program in New York State where the SHSO, DOT, and Department of Health worked together on pedestrian safety. Once low-cost infrastructure countermeasures were implemented, the Department of Health, with support from the SHSO, conducted education efforts in high crash locations.

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"Behavioral approaches," he said, "can fill gaps" since engineering measures may take a long time to implement. He also indicated SHSOs can support efforts in rural areas where it may be difficult to implement infrastructure improvements. He also noted "behavioral interventions can complement engineering" by explaining the how and why of new infrastructure.

Rajesh Subramanian, NHTSA, provided high-level statistics on pedestrian fatalities using data from NHTSA's Fatality Analysis Reporting System (FARS).

- Pedestrian deaths as a percentage of overall deaths gradually increased from 12 percent in 2009 to 17 percent in 2018.
- The median age in 2018 of pedestrians killed is 49 years of age compared to all traffic fatalities where the median age is 43.
- Nighttime deaths have increased significantly over the last few years.
- Forty-eight percent of pedestrian fatalities involved alcohol at least on the part of drivers involved in the crash.
- Three fourths of pedestrian fatalities occurred outside of an intersection.
- Fifty-five percent, or more than half, of pedestrian fatalities occurred on the roads deemed arterial or principal.
- The pedestrian fatality problem is largely an urban problem at night between the hours of 6 pm and 5:59 am.
- Florida, Texas, and California have the largest number of pedestrian deaths.
- Pedestrian deaths increase in the fall and winter months.

Michael Griffith, Director of FHWA's Office of Safety Technologies, provided an overview of the 69 current and planned USDOT actions to enhance pedestrian safety that are categorized as safe system elements including mobility options, enforcement laws and regulations, vehicle design technology, street design and engineering, land-use planning, speed management, education capacity building, and data and evaluation. Some of the actions include a global benchmark study on pedestrian safety; a pedestrian and bicycle safety strategic plan for research; technology deployment and outreach efforts; an upgrade to the NHTSA new car assessment program to improve pedestrian safety; and the development of crash injury research trauma centers; a crash data collection program; and a pilot data collection program for pedestrian crash cases. Finally, USDOT will be producing a test for public and private institutes to evaluate public safety awareness technologies that mitigate risk in the transportation system using pedestrian trespass on railroads as a case example.

The final three speakers discussed the safe system approach. First, Jeff Paniati, Executive Director and CEO of the Institute of Transportation Engineers (ITE) and representative of the Road to Zero Coalition, noted the creation of a "safe system framework" that anticipates human error and accommodates human injury tolerance. He stressed "the role of infrastructure owners and operators and what they can do to help create safer roads and safer speeds by seeking aggressive actions or taking aggressive actions in the way they design the roadway and operate the roadway network." He also indicated they are looking to these owners to "fully integrate the needs of all users." To achieve the safe system, he said, there is a need for "planning, design, and operations to embrace traditional approaches" by using what works and trying novel approaches and evaluating new ideas. He





Graphic courtesy of the Federal Highway Administration.

recommended participants visit the ITE or the National Safety Council web site for more information on safety culture and the safe system approach.

Mary Ann Koos from the Association of Pedestrian and Bicycle Professionals (APBP) and a special projects coordinator for the Florida Department of Transportation indicated APBP encourages "communities to identify actionable strategies with timelines, establish priorities for funding and staff time, and conduct meaningful community engagement that places an emphasis on duty." Her recommendation for an effective policy is "to anticipate people will make mistakes and provide an environment that minimizes risks by reducing or eliminating opportunities for crashes and reducing crash severity." She also mentioned solutions

such as "establishing speed limits supported by a web-based tool (USLIMIT2), and improvements like marked crosswalks, medians, pedestrian refuge islands, pedestrian intervals, exclusive left turns, nighttime lighting and roundabouts" all of which "improve a pedestrian's ability to safely negotiate intersections or crosswalks." She highlighted APBP's upcoming events including their webinar series.

Jessica Cicchino, Vice President of Research at the Insurance Institute for Highway Safety (IIHS), discussed the important role vehicles and vehicle technology play in the safe system approach. Vehicles, she said, "make crashes less likely to injure or kill a pedestrian and possibly prevent a crash from occurring altogether." Some of the new advancements she mentioned include "making the front of vehicles softer, more space between the engine and hard elements like windshields, and even external airbags." She indicated a problem in the U.S. was the growing popularity of SUVs and pickup trucks that are "more likely to kill or seriously injure pedestrians compared to cars." She mentioned "one old countermeasure that can help prevent crashes from occurring is headlights, which can make a big difference in how soon the driver can see a pedestrian in the roadway and stop for them." She also mentioned pedestrian detection systems which can tell if a pedestrian is in front of the vehicle, warn the driver, and automatically apply the brakes. While these new advancements are good, she warned that it does take "a long time for technology to proliferate through the fleet so we are only scratching the surface at what the systems are going to do when we have more in the fleet that have them."

Nicole R. Nason, FHWA Administrator, closed the webinar providing thanks to everyone who attended and special thanks to the session's speakers. While participants heard about the current and planned actions FHWA, NHTSA, and other administrations are planning to do, she indicated, "the DOT cannot address pedestrian safety issues through one mode and we cannot address it alone. We need all of you to be part of these efforts." When it comes to safety, she said, "collaboration is key." She reminded attendees to provide input into the draft of

current and planned actions with best practice examples or challenges to improving pedestrian safety. This information, she said, will be used to inform the USDOT Pedestrian Safety Action Plan.

July 15 Webinar – Consider Risk: When, Where, Who, How

The second virtual webinar focused on pedestrian risk – when and where it happens, who is involved, and how it can be solved. Cheryl Walker, Associate Administrator for Safety at FHWA, and Jamie Pfister, Associate Administrator for Regional Operations and Program Delivery at NHTSA, opened the webinar and were followed by six partner organization speakers. Laura Sandt, Director, Pedestrian and Bicycle Information Center (PBIC), reported there are a number of approaches that can prevent pedestrian fatalities. Many States and cities, she noted, are adopting new design standards that make it "more predictable, simple and easy for drivers to understand the best and safest choices. It makes it easier for pedestrians to find appropriate crossings and make appropriate behaviors." She emphasized road diets, traffic calming, speed governors on vehicles, automatic emergency braking, speed feedback signs and efforts to promote speed harmonization including slow speed

"While recognizing the most effective pedestrian safety efforts are planned and implemented at the local level, we know the USDOT plays a critical, supportive role. We value your expertise and we want your help to identify gaps in the [current and future] actions and we would like your ideas to inform future activities, leverage partnerships, and provide feedback for continued dialogue."

Cheryl Walker, Associate Administrator for Safety, FHWA

zones, speed limit reductions, and access management. She also was supportive of the systemic approach that addresses risk across an entire network.

David Yang from the AAA Foundation for Traffic Safety shared research that shows the impact of speed and the probability of death when someone is struck at different speeds. "When you go in increments of five miles per hour, the probability of being struck and killed increases significantly," he said. He also reported the Foundation is looking at the locations where people are killed and indicated the majority are at non-intersection locations. His recommendations included doing education through the AAA clubs across the nation, doing joint research with the University Transportation Centers, and reaching out and working with national organizations and stakeholders at various levels.

Corinne Kisner, Executive Director, National Association of City Transportation Officials (NACTO), noted "Americans face different levels of risk based largely on where they live and how they get around town. That has a lot to do with race, access to wealth, and income." She went on to note the highest risk for pedestrians is on streets



with higher speeds. She highlighted a new program called "Setting City Limits," which provides a framework for cities to set lower speed limits, and is now the "inspiration for several policies around the country." In Seattle, she reported "the DOT implemented a four-lane, three lane conversion on a street with about 23,000 cars per day." Before the change "about one in 20 drivers were going 40 miles per hour or higher. With careful design and analysis, the street was brought down to 25 miles per hour, which reduced the number of speeders by 52.4 per-

"For pedestrians to truly be safe on our roadways, research emphasizes the importance of coordinating countermeasures with complementary education, outreach, and enforcement strategies."

> Jamie Pfister, Associate Administrator for Regional Operations and Program Delivery, NHTSA

cent." On another Seattle roadway, the speed was lowered to 35 mph on an arterial where a new school had opened. "Initial analysis shows a 47 percent reduction in injury crashes within a quarter-mile." Setting reasonable speed limits and coordinating design work can have a positive impact.

Ian Thomas, Director of the State and Local Programs at America Walks, provided information on some of the systemic causes of pedestrian fatalities in the U.S. and gave examples of several European speed management

strategies. He spoke about an increase in nighttime pedestrian fatalities, and the impact of speed, particularly on older adults. He recommended that if vehicle speeds can be "below 30 miles per hour or 20 miles per hour in areas where there are a lot of driveways and complicated turning movements, [we] can dramatically reduce pedestrian fatalities." A map of the U.S. showed that the States with the highest number of fatalities between 2007 and 2017 were in the South where there has been the most growth in the U.S. He indicated the design of the roadways often makes it impossible for people to get around safely. "How quickly we can move traffic along this corridor is far more important in the minds of many engineers," he said. He then provided some examples from Europe where they have successfully lowered pedestrian deaths. In Barcelona, Spain they have identified "superblocks" where through traffic is prevented and the speed limit is 30 kilometers per hour. Cars "are not the priority mode of transportation." He also noted the Vision Zero program in Sweden, efforts in one of the arrondissements in Paris where traffic is limited, and the Twenty is Plenty campaign in London.

Brad Sant, Senior Vice President, Safety and Education, American Road and Transportation Builders Association (ARTBA), focused his presentation on often-overlooked pedestrians – workers. Most people think of these as construction workers, but he noted "there are construction workers, maintenance workers and employees of the DOT which includes inspectors, engineers, surveyors, landscapers, and also emergency responders." These workers are in locations where the speed limit is up to 70 miles per hour putting them at greater risk. One of his recommendations was to use lightweight mobile barriers. Another recommendation centered on understanding the data involving worker fatalities to get a better idea of the exact nature of the problem.

Anne Marie Doherty, Senior Director of Research, Implementation and Safety at the New York City Department of Transportation (NYCDOT), highlighted New York City's successful Vision Zero program which involves a commitment from the Mayor, a data driven and evidence-based approach, a shared public metric of success, a focus on speed, a multi-agency effort, and efforts involving legislation, enforcement and education. There is also a focus

on priority locations using data to identify these areas. Since the start of the program, she reported, "NYC DOT has made safety engineering improvements at more than 85 percent of priority intersections and more than 75 percent of the total length of the priority corridors." NYC also installed speed cameras at 750 locations that are near schools resulting in a 63 percent decrease in speeding at these locations. Overall, since the city's pedes-

"We all have a responsibility to share the road and look out for each other. A safe system approach recognizes that everyone, including those who design, build, operate and use the road system, is responsible for safety. NHTSA is finalizing a community-based assessment tool to help determine whether pedestrian efforts will have an impact."

James C. Owens, Deputy Administrator, NHTSA trian safety program was implemented, there has been a 22 percent decrease in pedestrian fatalities.

July 28 Webinar – Next Steps

Nicole R. Nason, FHWA's Administrator, and James C. Owens, NHTSA's Deputy Administrator, kicked off the last webinar and were followed by two speakers, one from a State DOT and the other from a partner organization. This was followed by a review of the various current and future actions that FHWA, NHTSA, and

other Administrations at USDOT will be conducting to improve pedestrian safety. The first speaker was Dr. Shawn Wilson, Secretary of the Louisiana Department of Transportation and Development (LA DOTD), who reported that in Louisiana the majority of pedestrian safety efforts are concentrated in the State's two largest cities – New Orleans and Baton Rouge – both of which have developed pedestrian safety action plans. Pedestrian safety, he reported, is also part of the Strategic Highway Safety Plan (SHSP), which is a sub-emphasis area in the Infrastructure and Operations emphasis area. "This helps bring awareness to both the conditions of our road, the things that we're building, and how we're finding solutions to help keep us safe," he said. Louisiana, Dr. Wilson noted, has a strong Complete Streets policy that has been adopted both by the department and the legislature. Individuals, including partners in the health industry and other advocates and professionals, worked to get the policy passed by the State Legislature. LA DOTD also provides "leadership and training opportunities for local entities," and is working to provide leadership and establish partnerships at the local public agency level to implement these policies. He also highlighted a pedestrian safety improvement that was implemented at Louisiana State University under their Complete Streets policy

Brittney D. Kohler, Legislative Director for Transportation and Infrastructure, National League of Cities, reported that "cities across the country have been stepping up [to address pedestrian safety] in places from Anchorage, AK, Fremont, CA to Durham, NC, Washington DC, Boston, MA, and New York City." What they are trying to do, she noted, is make their cities more "human centered" so people can move more safety through them. "We need a safety net, as humans," she said. She also noted that more attention is being paid to the speed issue and in the current COVID environment, "the drop in traffic has not necessarily led to a drop in fatalities." She went on to share a program being implemented in Tigard, OR which is part of the Portland metropolitan area. As the city reopened, they saw "a significant increase in the number of residents who wanted to be walking and bicycling safely." Since Tigard has many nearby trails, they tried to connect their roads to those trails and were thinking ahead to address gaps through low cost interventions. Some of the ways she indicated USDOT could help cities



include demonstrations and temporary installations for communities to address safety concerns quickly; future guides, manuals and plans that lean into human-centric design; connectivity among networks and city-MPO-State-Federal plans; and strong technical support through programs and guides reflecting different places.

The July 28 webinar also included a review of the current and future actions in the USDOT Pedestrian Safety Action Plan. Attendees were encouraged to offer their input on these efforts. To wrap up the Summit, FHWA Executive Director Tom Everett thanked all the speakers and participants and reiterated "the only way we will achieve success is by teaming up to solve these pedestrian safety challenges together."

CONCLUSION

In closing out the webinar series, Tom Everett, Executive Director of FHWA, noted "the safety of pedestrians and all transportation system users is the number one priority of the Department." He thanked the people who

attended the webinars along with the individuals who presented and provided vital and valuable information to further the cause of pedestrian safety. In addition, he thanked those from FHWA and NHTSA who worked hard to put the webinars together even under different circumstances than what was originally planned.

"We commit to working with all of you to promote safe and comfortable and convenient walking for people. After all, we are all pedestrians at some point."

> Tom Everett, Executive Director, FHWA

The USDOT Pedestrian Safety Action Plan is a

unique opportunity for several Administrations within the Department to come together to address a problem. Over the next several years, these agencies will be implementing the actions contained in the Plan and assessing progress. This Plan is not the only effort underway across the nation. States, localities, regional agencies, and private sector organizations will be doing their part to improve safety for pedestrians and other vulnerable road users. Ultimately reductions in pedestrian fatalities and serious injuries is the goal of the collective efforts on pedestrian safety. It is a worthwhile and achievable goal.

APPENDIX

Webinar 1 – Taking Action on Pedestrian Safety Part 1: Introduction and Safe System Approach July 8, 2020 1:00-2:30 p.m. EDT

Agenda Item	Speaker		
Welcome and Introductions	Cheryl Walker, Federal Highway Administration (FHWA)		
	Jamie Pfister, National Highway Traffic Safety Administration (NHTSA)		
Opening Remarks	Secretary Elaine L. Chao, Secretary, U.S. Department of Transportation (USDOT)		
	Mala Parker, Deputy Administrator, FHWA		
	James C. Owens, Deputy Administrator, NHTSA		
Guest Speakers	Patrick McKenna, President, American Association of State Highway Transportation Officials (AASHTO)		
	Chuck DeWeese, President, Governors Highway Safety Association (GHSA)		
Data Overview	Rajesh Subramanian, NHTSA		
Overview of Draft USDOT current and planned actions to enhance pedestrian safety	Mike Griffith, FHWA		
Safe System Approach	Jeff Paniati, Institute of Transportation Engineers (ITE)		
	Mary Ann Koos, Association of Pedestrian and Bicycle Professionals (APBP)		
	Jessica Cicchino, Insurance Institute for Highway Safety (IIHS)		
Facilitated Session	Mike Griffith, FHWA		
Closing Remarks	Nicole R. Nason, Administrator, FHWA		



Webinar 2 – Taking Action on Pedestrian Safety Part 2: Consider Risk: When, Where, Who, How? July 15, 2020 1:00-2:30 p.m. EDT

Agenda Item	Speaker
Welcome and Introductions	Cheryl Walker, Associate Administrator for Safety, Federal Highway Administration (FHWA)
	Jamie Pfister, Associate Administrator for Regional Operations and Program Delivery, National Highway Traffic Safety Administration (NHTSA)
Facilitated Session	Mike Griffith, FHWA, Lead Facilitator
	Guest Speakers
	 Laura Sandt, Director, Pedestrian and Bicycle Information Center (PBIC)
	 David Yang, Executive Director, AAA Foundation for Traffic Safety (AAAFTS)
	 Corinne Kisner, Executive Director, National Association of City Transportation Officials (NACTO)
	 Ian Thomas, Director, State and Local Program, America Walks
	 Anne Marie Doherty, Senior Director, Research, Implementation and Safety, New York City Department of Transportation (NYC DOT)
	 Brad Sant, Senior Vice President, Safety and Education, American Road and Transportation Builders Association (ARTBA)
Polling Questions	Mike Griffith, FHWA
Preview Next Webinar and Adjourn	Cheryl Walker, FHWA
	Note: Two videos will be played from NHTSA and the Turner-Fairbanks Highway Research Center

Webinar 3 – Taking Action on Pedestrian Safety Part 3: Next Steps July 28, 2020 1:00-2:00 p.m. EDT

Agenda Item	Speaker
Opening Remarks	Nicole R. Nason, Administrator, Federal Highway Administration (FHWA)
	James C. Owens, Deputy Administrator, National Highway Traffic Safety Administration (NHTSA)
Guest Speakers	Dr. Shawn Wilson, Secretary, Louisiana Department of Transportation and Development (LA DOTD)
	Brittney D. Kohler, Legislative Director of Transportation and Infrastructure, National League of Cities
USDOT Pedestrian Safety Action Plan: Next Steps	Mike Griffith, FHWA
Closing Remarks	Nicole R. Nason, Administrator, FHWA



