

Human Environment Digest

April 30, 2020

Welcome to the Federal Highway Administration (FHWA) Office of Human Environment biweekly email digest. This digest shares the latest information from a range of Federal and non-Federal sources, addressing transportation and its relationship to the human environment. Through this information exchange, FHWA hopes to foster dialogue at all levels and continue to further the state of the practice on these important topics in support of safety; infrastructure, including accelerated project delivery, access to jobs, and community revitalization; technology and design innovation; and accountability, including, data-driven decisions and performance-based planning.

For more information on any of these topics, see the FHWA Related Links on the sidebar.

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*The information provided in this mailing does not necessarily reflect the view of the Federal Highway Administration or the U.S. Department of Transportation.



Safety

GAO Report Highlights Pedestrian Safety Tests

The *U.S. Government Accountability Office* published a [report](#) analyzing the relationship between vehicle characteristics and pedestrian fatalities and injuries. It also examines strategies that automakers and *National Highway Traffic Safety Administration (NHTSA)* have deployed to improve pedestrian safety, including an evaluation of NHTSA's [New Car Assessment Program](#), which crash-tests new vehicles and rates them on their ability to protect occupants. The findings suggest that vehicle characteristics related to age, body type, and travel speed contributed to increases in pedestrian fatalities between 2008 and 2018. The report indicates that pedestrian detection systems with radar technologies help decrease injuries and deaths, recommending that NHTSA determine whether to include pedestrian safety tests in its Federal safety testing program.

Research Examines Characteristics and Causes of Distracted Driving Behavior

The *Illinois Center for Transportation at the University of Illinois, Urbana-Champaign* published a [literature review](#) to better understand the characteristics, causes, and impacts of distracted driving in Illinois. Researchers also analyzed past studies, current laws, and enforcement programs to identify best practices for mitigating distracted driving. The study makes recommendations related to changing driver behavior, increasing law enforcement and education campaigns, optimizing street signage, and integrating new vehicle technologies. Distraction is a major safety concern for all roadway users—in 2018 distracted driving killed 400 pedestrians, 77 bicyclists, 1,730 drivers, and 605 passengers throughout the U.S.

Study Outlines Strategies to Reduce Multiple-Threat Crashes and Improve Pedestrian Safety

The *Transportation Research Record: Journal of the Transportation Research Board* published a [research article](#) analyzing risk factors of multiple-threat crashes, which occur when a driver stops for a pedestrian who is then struck by a second driver traveling in the same direction of travel in the next lane. The findings suggest that a greater number of lanes and higher speed limits increase the risks of multiple-threat crashes. Researchers note that advance stop or yield lines are effective interventions because they increase yielding distance. Other identified strategies to enhance pedestrian safety in these instances include increased signage, public education, and high visibility enforcement programs.



Infrastructure

Study Highlights Economic Benefits of Active Transportation Infrastructure

The *Transportation Research and Education Center at Portland State University* released a [study](#) on the economic impacts of bicycle and pedestrian street improvements. The study examined street improvement corridors across six cities to determine the effects on business activity. The findings indicate that active transportation infrastructure has positive impacts on employment, wages, and increased sales, particularly for the food service industry, which benefited the most.

Study Analyzes Impacts of Left-Turn Traffic-Calming Treatments

The *Insurance Institute for Highway Safety* published a [report](#) on the effects of left-turn traffic-calming treatments on conflicts and speeds. The study examined conflicts between left-turning vehicles and pedestrians, including left-turn speeds at select interactions in Washington, District of Columbia. The findings suggest that simple infrastructure improvements can provide major benefits and reduce crashes among pedestrians at intersections when road diets, curb extensions, and centerline hardening treatments such as bollards, rubber curbs, and medians are in place.

Research Evaluates Pedestrian Hybrid Beacon Operation on Higher-Speed Roadways

The *Transportation Research Record: Journal of the Transportation Research Board* published a [research article](#) examining the use of pedestrian hybrid beacons (PHBs) on higher-speed roads in Arizona. Researchers recorded video data at select roads with posted speed limits of 45 or 50 miles per hour, evaluating interactions between pedestrian crossings and driver-yielding behavior. The findings suggest that PHBs perform adequately on these higher-speed roads, with 97 percent of drivers yielding to pedestrians or bicyclists, which is comparable to how PHBs perform on lower-speed roads.



Innovation

U.S. DOT Seeks Innovators for Inclusive Design Challenge

The *U.S. Department of Transportation (U.S. DOT)* recently launched the [Inclusive Design Challenge](#), a national prize competition that aims to make future automated vehicles (AVs) more accessible to people with disabilities. As part of Stage I of the Inclusive Design Challenge, *U.S. DOT* is seeking innovative design solutions that help individuals with physical, sensory, and cognitive disabilities to use AVs to access jobs, healthcare, and other essential services. The program will award \$300,000 to each of up to 10 semifinalists in Stage I. [Submissions are due October 30 at 5:00 pm ET.](#)

Research Examines Social Media Impacts on E-Scooter Safety Practices

The *Journal of Medical Internet Research: Public Health Surveillance* published a [research paper](#) analyzing the social media accounts of electric scooter providers between 2018 and 2019 to determine how they promote safety to users. The study explains that social media content can influence user behavior and may contribute to unsafe riding practices. The findings suggest limited promotion of protective gear on social media, highlighting opportunities to develop web-based campaigns in order to increase safe riding.

Research Analyzes Traumatic Injuries from Micromobility Devices

The *Journal of the American Medical Association: Network Open* published a [research article](#) evaluating traumatic injuries associated with standing motorized scooters, including the use of protective gear and intoxicants on injury risk. Researchers found that scooter-related injuries are significantly associated with lack of safety gear and alcohol or drug use. The findings highlight the importance of updating injury screening and healthcare protocols in order to increase public understanding of micromobility safety risks.



Accountability

E-book on Creative Placemaking in Low-Income Communities

A nonprofit organization recently published an [e-book on creative placemaking](#) and the opportunities it provides for low-income populations within disadvantaged communities. Developed as part of a "For Whom by Whom" series, the e-book features local examples of equitable placemaking initiatives that prevent displacement and gentrification in urban settings across the country. The stories highlight various neighborhood improvements including those on bicycle trails, business corridors, and under highway overpasses.

Journal of Transport & Health Calls for Papers on Health Equity, Social Inclusion, and Mobility

The *Journal of Transport & Health* is calling for papers for the [Special Issue: Health equity, social inclusion and mobility](#). Authors are invited to submit papers that address themes related to transport system impacts on vulnerable populations, including the effects of limited mobility on health equity, livability, and accessibility, as well as policy and built environment interventions. [Author guidelines are available online](#) and submissions are due May 31, 2020.

APBP Seeks 2020 Annual Awards Nominations

The *Association of Pedestrian & Bicycle Professionals (APBP)* is seeking [nominations for the 2020 APBP Annual Awards](#). The awards will recognize lifetime achievements and professionals of the year in six categories. Nominations are due May 31, 2020 and must be submitted by current APBP members.

NADTC Releases Healthy Aging Resource for Bus Operators

The *National Aging and Disability Transportation Center* released a [brochure](#) outlining information and tips for bus operators assisting passengers with Alzheimer's and dementia. It is designed to build awareness of the day-to-day challenges that individuals with Alzheimer's and dementia face in order to support healthy aging and ensure a safe trip for all riders.

