

Human Environment Digest

May 14, 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

Study Analyzes Trends and Injury Patterns of Adult On-Road Bicyclist Crashes

We are celebrating [National Bike Month](#) with several bicycle research highlights in this issue. A [recent study](#) released by the *Victorian Injury Surveillance Unit* at the *Monash University Accident Research Centre* discusses trends and injury patterns related to adult on-road bicycle crashes using a combination of ambulance attendance, emergency department, hospital admission, and fatality data. It found that bicyclists who are between the ages of 25 and 34 are the most commonly injured age group, including differences in travel patterns between genders. It recommends improvements related to policy and infrastructure investments, education, bicycle research investment, and injury surveillance and coding.

Research Analyzes Automated Vehicle Effects on Pedestrians with Visual Impairments

The *Transportation Research Record: Journal of the Transportation Research Board* published a [study](#) examining the impacts and barriers of connected automated vehicles (CAVs) on pedestrians with visual impairments. Visually impaired pedestrians are vulnerable road users who rely on sounds from car engines and other vehicles to travel safely and avoid collisions. The study concludes that survey respondents with visual impairments prefer audible alerts and communication from CAVs and outlines opportunities for vehicle manufacturers to add acoustic vehicle alert systems to improve road safety.

Research Examines Enhanced Impacts of Different Pedestrian Crossings on Driver Yielding Behavior

The *Transportation Research Record: Journal of the Transportation Research Board* published a [study](#) analyzing differences in compliance of driver yielding rates associated with various pedestrian crossings in Utah. The study aimed to identify the most effective crossing treatment at high-risk intersections, comparing marked crosswalks with enhanced pedestrian crossings such as the high-intensity activated crosswalk (HAWK), overhead flashing beacon (OFB), and rectangular rapid flashing beacon (RRFB). It found that pedestrian enhancements added to marked crosswalks increase driver yielding compliance by 97 percent for the HAWK, followed by OFB at 77 percent and RRFB at 57 percent.

Toolkit Outlines Strategies to Engage Young People in Traffic Safety Initiatives

A [new toolkit](#) from a national transportation advocacy group provides tips for effectively engaging and empowering youth in traffic safety initiatives. It explains that young people play an essential role in shaping transportation systems and building innovative approaches to ensure safe streets for all. The toolkit discusses strategies to integrate Safe Routes to School programming into [Vision Zero](#) efforts, including resources to help communities design and implement youth-centered safety initiatives.



Infrastructure

Study Examines Impacts of Blocked Bicycle Lanes

A [recent study](#) published by *Transport Findings* analyzes bicycle lane violation reports to determine impacts on local prioritization of bicycle infrastructure in San Francisco, California. The study examined crowdsourced bicycle lane violations from a local platform that allows citizens to report blocked bicycle lanes, comparing the reports with city citations to identify areas for increased enforcement. It found that the most common vehicle type to block bicycle lanes is private vehicles at 31 percent, followed by delivery vehicles, ridehail/taxi vehicles, commercial trucks, and less than 10 percent comprised by public vehicles, private buses or shuttles, and physical obstructions. The findings indicate that traditionally striped bicycle lanes are less effective in protecting bicyclists and may contribute to traffic conflicts, particularly when they are used as loading zones. Researchers recommend increased prioritization of protected bicycle lanes or widening of roadways to support bicycling.

Study Surveys Bicyclist Facility Preferences and Impacts on Bicycle Trips

The *Transportation Research Board* released a *National Cooperative Highway Research Program* [report and presentation](#) on bicyclists' facility design preferences and their effects on bicycle trips. The study surveyed bicyclists in communities where bicycling for transportation is less common, and found that users prefer facilities separated from automobiles and parking, and that facility treatments influence perceptions of bikeability. It also recommends prioritizing separated or protected facilities, reducing the proximity of parking to bicycle lanes, delineating between bicycling and walking lanes on multi-use trails, and building educational programs.

Webinar Highlights Curb Space Management as a Mobility Tool

The *Eno Center for Transportation* recently hosted a webinar on curb space management policy as a dynamic tool to achieve mobility goals. The [webinar recording](#) discusses the ways in which communities can leverage existing control of streets, sidewalks, and curb space to promote mobility, safety, equity, resiliency, and accessibility goals. It explains that current trends in e-commerce and ridehailing can make curb management challenging, and outlines approaches for communities to develop policies that better align curb space allocation with local priorities.



Innovation

U.S. DOT Complete Trip - ITS4US Deployment Program Webinar Series Materials Available Online

The *U.S. Department of Transportation* recently completed a [seven-part webinar series](#) as part of the [Complete Trip - ITS4US Deployment Program](#), which aims to solve mobility challenges of all travelers, regardless of location, income, or disability, job accessing jobs, education, healthcare, and other activities. The program will make up to \$40 million available for large scale, replicable, real world deployments of integrated innovative technologies that address the challenges of planning and executing complete trips. Supported by the *Office of the Secretary of Transportation, Federal Transit Administration, and Federal Highway Administration*, the presentation materials showcase innovative business partnerships, technologies, and practices that promote independent mobility for all. The program website includes past webinar recordings, a [program overview fact sheet](#), and a draft Broad Agency Announcement that is available for public comment and will be used to solicit proposals for the Complete Trip - ITS4US Phase 1 work.

CPSC Releases Report on Safety Concerns Associated with Micromobility Devices

The *Consumer Product Safety Commission (CPSC)* recently released a [report](#) examining the safety of micromobility devices such as electric scooters (e-scooters), electrical bicycles, and self-balancing scooters. The report categorizes the related hazards into three broad areas including mechanical, electrical, and human factors. The report adds that these device hazards combined with user unfamiliarity with e-scooter controls and capabilities, as well as local laws, contribute to injuries and collisions. *CPSC* continues to work with the *U.S. Department of Transportation* and other Federal agencies to address safety issues related to new motorized micromobility devices.



Accountability

FHWA Releases Public Roads Spring 2020 Special Issue on Female Leaders in Transportation

The *Federal Highway Administration (FHWA)* recently released the [spring 2020 issue of the Public Roads magazine on female leaders in transportation](#). The special issue covers the role that women play in transportation, featuring articles from the driving forces behind *U.S. Department of Transportation, FHWA, and Federal Transit Administration* about their visions for the future. It also discusses gender-specific transportation challenges, providing insight and inspiration to encourage girls and women to begin careers in transportation.

AASHTO Calls for Transportation and Environment Research Ideas

The *American Association of State Highway and Transportation Officials Center for Environmental Excellence* maintains the Transportation and Environment Research Ideas (TERI) database and is [calling for transportation and environmental research ideas](#) as part of its 2020 annual cycle. The TERI database is a central storehouse for sharing and monitoring related research ideas and priorities. Practitioners are invited to submit ideas that address themes related to transportation and environment linkages such as air quality, environmental justice, National Environmental Policy Act process, tribal consultation, and more. Practitioners are encouraged to re-submit prior research ideas for consideration during the current research cycle.

Report Outlines Connections Between Extreme Weather Events and Displacement

A [recent report](#) from a national resiliency group discusses the various ways that communities are preparing to enhance climate resiliency and responding to displacement pressures. It explains that extreme weather events can impact temporary or permanent displacement, resulting in inequitable outcomes and loss of individual and community identities. Researchers aimed to better understand the connections between climate resiliency and displacement, outlining strategies that increase community preparedness such as improving existing roads and highways to ensure access to services during extreme weather events.

American Trails Launches Advancing Trails Webinar Series

American Trails recently announced its [Advancing Trails Webinar Series](#) focused on all aspects of trails and greenways. Webinars will provide key information related to active transportation, outdoor recreation, public health connections, wayfinding, data analytics, and more. The sessions are currently scheduled through August.