



U.S. Department of Transportation
Federal Highway Administration
Office of Planning, Environment and Realty

Office of HUMAN ENVIRONMENT

<http://www.fhwa.dot.gov/environment/>

The Federal Highway Administration's (FHWA) Office of Planning, Environment, and Realty offers research opportunities to improve transportation decision making and promote efficiency while protecting communities and the environment. The Office supports and conducts research that:

- Informs Decisions
- Reduces Negative Environmental Impacts and Enhances Benefits
- Enhances Quality of Life
- Accelerates Project Delivery
- Advances Transportation Planning

The following document highlights specific research activities in the Office of Human Environment. For more information, please visit: http://www.fhwa.dot.gov/hep/hep_research/.

OFFICE OF HUMAN ENVIRONMENT

FHWA's Office of Human Environment (HEPH) develops and implements programs and activities that advance multimodal innovation, improve the human environment, and enrich human interaction with transportation systems.

Research Focus

The Office's efforts focus on supporting the advancement of livability, documenting the local and regional economic development impacts of highways, planning and implementing research, and managing human environment-related funded programs. The resulting research is focused on the following areas:

- Quality of life and environmental justice
- Community impact assessments
- Pedestrians, bicyclists and micromobility
- Context-sensitive solutions and design
- Economic development
- Research program management and outreach
- The National Highway System (NHS)
- Transportation and recreational trails

These efforts are directed toward providing technical assistance, tools, and training on highway systems and complementary modes of transportation.

Staff Contact: Mike Neathery, 202-366-1257 or mike.neathery@dot.gov.

FEATURED RESEARCH ACTIVITIES

Fostering Innovation in Pedestrian and Bicycle Transportation Pooled Fund Study

This pooled fund focuses on bicycle and pedestrian network planning, safety, design issues (design flexibility, developing crash modification factors, network connectivity), traffic control devices (experimenting on innovative markings, signals, and signs), and other issues designed by participants. For more information, please visit:

<https://www.pooledfund.org/Details/Solicitation/1441>. **Staff Contact:** Darren Buck, 202-366-1362 or darren.buck@dot.gov.

Impacts of Electric Bicycles (ebikes) on the Transportation Network and Trail System

This research will compile information on the impacts of ebikes on the transportation network and trail systems. The effort includes a literature review on the impacts of ebikes, with a focus on safety, ridership trends, and impacts to infrastructure and natural resources. The review will investigate existing practices for regulating ebikes in different contexts (rural, suburban, urban), and public lands. The research will provide information on data collection and analysis methodologies, and produce 10 or more case studies that examine the use, impacts, and regulation of ebikes by States, local jurisdictions, and Federal Land Management Agencies. **Staff Contact:** Christopher Douwes, 202-366-5013, or christopher.douwes@dot.gov.

E-Scooters Management in Mid-Size Cities in the United States

This research examined several case studies to provide additional observations around micro-mobility. Interviews were conducted with large, mid-size, small communities in addition to the FHWA and the National Association of City Transportation Officials to gather perspectives on key emerging issues, challenges and potential guidance. Primary topics explored included; regulation and permitting, safety, and infrastructure design. Insights and lessons learned from interviews will also be presented at the ITE conference in Austin, TX in Summer 2019. The final [report](#) summarized consistent themes and potential next steps.

Staff Contact: Wesley Blount, 202-366-0799 or wesley.blount@dot.gov.

The Basics of Micromobility and Related Motorized Devices for Personal Transport

This [info brief](#) provides an overview of powered forms of micromobility and compares features of micromobility with a spectrum of other traditional and emerging forms of transportation. It references and builds upon micromobility definitions created by the Society of Automotive Engineers (SAE), a standards-developing organization and professional association. **Staff Contact:** Wesley Blount, 202-366-0799 or wesley.blount@dot.gov.

Strategies for Accelerating Multimodal Project Delivery

This report identifies specific strategies and techniques for accelerating multimodal project delivery, prioritizing ways to efficiently and effectively build out connected multimodal networks in concert with major highway, intersection, and bridge projects. It includes standalone pedestrian and bicycle projects, retrofits in-built environments, fixed and flexible route transit and intermodal projects, and as ongoing maintenance activities. The [report](#) highlights proven techniques that agencies are using to get high quality results, and opportunities to address barriers or delays in the project delivery process. **Staff Contact:** Wesley Blount, 202-366-0799 or wesley.blount@dot.gov.

Toolkit on Innovative Finance Strategies to Accelerate Bicycle and Pedestrian (Active Transportation) Project Delivery

This research builds on *Strategies for Accelerating Multimodal Project Delivery* and "Diversifying DOT's Build America Bureau (BAB) Portfolio to Include Underutilized Stakeholders" to compile, analyze, and document best practices for innovative finance strategies to accelerate bicycle and pedestrian project delivery. The research will highlight innovative finance approaches for implementing active transportation projects in various community contexts. **Staff Contact:** Fleming El-Amin, 202-366-0233 or fleming.el-amin@dot.gov.

Site Selection Factors Along Economic Development Corridors

This research produced a primer, fact sheets, and case studies on the site selection industry, detailing methods and procedures, and factors site selectors use when choosing locations for different facility types. Discussions with site selectors were held to better understand what drives their decisions. The final products considered site selection in the context of both attracting new economic activity and retaining existing economic activity, with attention to the importance of transportation access and connectivity. The final product emphasizes the role that transportation and highways play in the selection process. For more information, please visit:

https://www.fhwa.dot.gov/planning/economic_development/. **Staff Contact:** Stefan Natzke, 202-366-5010 or stefan.natzke@dot.gov.

Resources for Managing Mobility Options at the Curb

New mobility concepts and solutions, from micro-mobility and car sharing systems to innovative demand response bus services, are providing travelers with new, flexible, and tailored transportation options. This research project is to develop additional curb space management resources that will allow communities to make informed decisions on how to best manage their curbs. In the near term, the products will give jurisdictions tools and guidance to assess current resources while considering option usage. In the long term, this work can help communities develop strategies that address identified conflict points and to pursue desired curb usage and policies. **Staff Contact:** Jeff Price, 202-493-0280 or jeff.price@dot.gov

Public Safety Awareness Technology Evaluation

Five DOT Agencies; Pipeline and Hazardous Materials Safety Administration, National Highway Traffic Safety Administration, Federal Railroad Administration, Federal Transit Administration, and FHWA are collaborating to identify existing and emerging technologies to increase public safety awareness and reduce surface transportation injuries and fatalities. The research will identify detection and messaging methods, and develop test protocols to apply those findings to specific safety alert systems. **Staff Contact:** Christopher Douwes, 202-366-5013 or christopher.douwes@dot.gov.

Rails with Trails: Lessons Learned

This report describes effective practices to plan, design, construct, operate, and maintain rails-with-trails facilities. It describes methods to ensure railroad and trail safety and security, promote active transportation and health and wellness, support network connectivity and economic development, and enhance the environment. **Staff Contact:** Christopher Douwes, 202-366-5013 or christopher.douwes@dot.gov.

Pedestrian and Bicycle Information Center

FHWA has a cooperative agreement with the University of North Carolina Highway Safety Research Center to develop, synthesize, promote, and distribute bicycling and walking information to improve the quality of life in communities through the increase of safe walking and bicycling as a viable means of transportation and physical activity. For more information, please visit <http://www.pedbikeinfo.org/>
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