

FTA Report No. 0276

**FTA**  
**RESEARCH**  
FEDERAL TRANSIT ADMINISTRATION

# FTA Annual Research Report for Fiscal Year 2025

PREPARED BY

**Federal Transit Administration**



U.S. Department of Transportation  
**Federal Transit Administration**

January  
**20**  
**26**

## COVER PHOTO

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## January 2026

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PREPARED BY

Federal Transit Administration  
Office of Research, Demonstration and Innovation  
U.S. Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, D.C. 20590

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### Metric Conversion Table

| SYMBOL   | WHEN YOU KNOW        | MULTIPLY BY                                    | TO FIND                        | SYMBOL         |
|--|----------------------|--|--------------------------------|----------------|
| <b>LENGTH</b>  |                      |  |                                |                |
| in   | inches               | 25.4   | millimeters                    | mm             |
| ft   | feet                 | 0.305  | meters                         | m              |
| yd   | yards                | 0.914  | meters                         | m              |
| mi   | miles                | 1.61   | kilometers                     | km             |
| <b>VOLUME</b>  |                      |  |                                |                |
| fl oz  | fluid ounces         | 29.57  | milliliters                    | mL             |
| gal  | gallons              | 3.785  | liters                         | L              |
| ft <sup>3</sup>  | cubic feet           | 0.028  | cubic meters                   | m <sup>3</sup> |
| yd <sup>3</sup>  | cubic yards          | 0.765  | cubic meters                   | m <sup>3</sup> |
| NOTE: volumes greater than 1000 L shall be shown in m <sup>3</sup> |                      |  |                                |                |
| <b>MASS</b>  |                      |  |                                |                |
| oz   | ounces               | 28.35  | grams                          | g              |
| lb   | pounds               | 0.454  | kilograms                      | kg             |
| T  | short tons (2000 lb) | 0.907  | megagrams<br>(or "metric ton") | Mg (or "t")    |
| <b>TEMPERATURE (exact degrees)</b>                                 |                      |  |                                |                |
| °F   | Fahrenheit           | $\frac{5(F-32)}{9}$<br>or $\frac{(F-32)}{1.8}$ | Celsius                        | °C             |

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# Executive Summary

The Federal Transit Administration (FTA) Public Transportation Innovation Program (49 U.S.C. § 5312) advances innovative public transportation research by selecting, funding, and managing projects and programs of national significance to improve public transportation. In Fiscal Year (FY) 2025, active projects supported FTA’s vision to improve America’s communities through public transportation.

Research activities evolve through a phased statutory pipeline approach, as shown in Figure 1, beginning with early research on promising ideas, leading to evaluation and implementation.



**Figure ES-1** FTA Pipeline Phased Approach

- **Foundational Research**—developing and deploying new and innovative ideas, practices, and approaches.
- **Innovation and Development**—improving public transportation systems nationwide to provide more efficient and effective delivery of public transportation services through technology and technological capacity improvements.
- **Demonstration and Deployment**—enabling early deployment and demonstration of innovations in public transportation with broad applicability.
- **Evaluation and Implementation**—analyzing project results and plans for broad-based implementation of research findings.

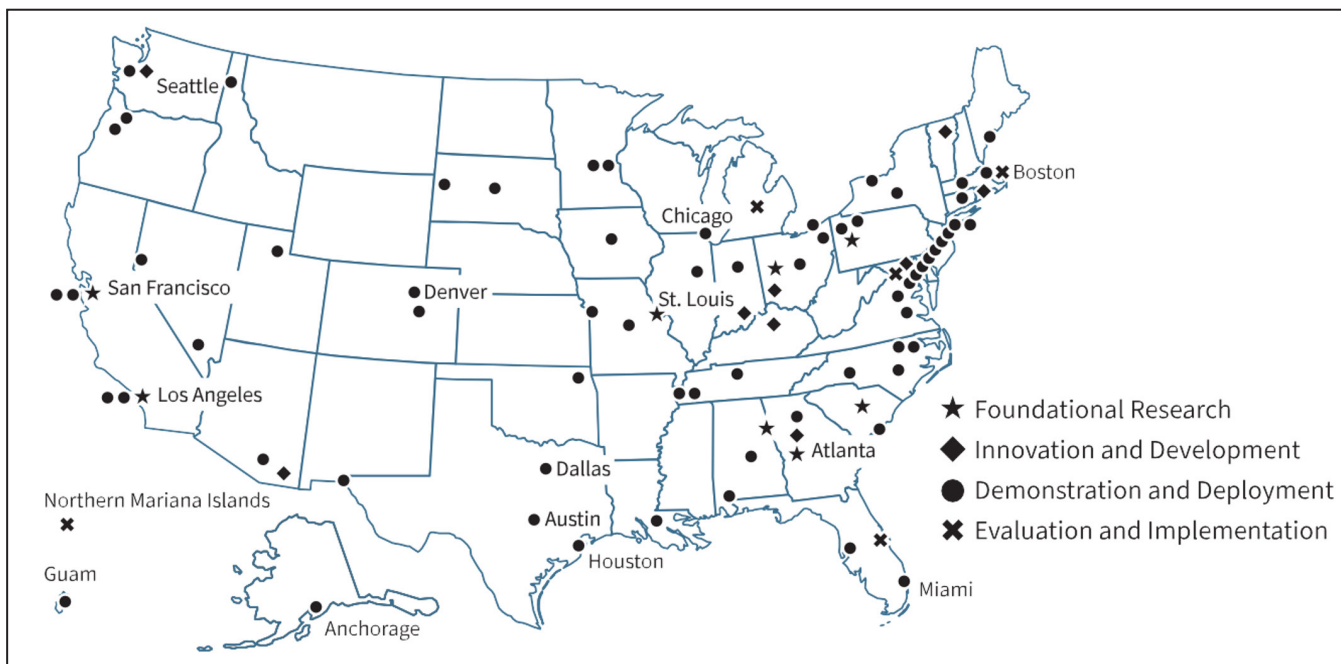
FTA’s research investments support the Administration priorities, promote a better quality of life, and support economic prosperity.

**Table ES-1** Complete List of FY 2025 Active FTA Research Programs and Projects

| Type                       | Project Title  | FTA Funding  |
|----------------------------|--|--------------|
| Foundational Research      | Transit Cooperative Research Program (TCRP)  | \$32,219,756 |
| Foundational Research      | Small Business Innovation Research (SBIR) Program  | \$1,627,693  |
| Foundational Research      | Component Assessment Program   | \$48,688,132 |
| Foundational Research      | Transit Vehicle Innovation Deployment Centers (TVIDC)  | \$22,099,664 |
| Foundational Research      | Safety Risk Management (SRM) and Analysis  | \$2,000,000  |
| Foundational Research      | Transit Operations and Emerging Data Interoperability Capacity Building  | \$500,000    |
| Foundational Research      | Mobility NeXt Research Design and Implementation   | \$2,000,000  |
| Foundational Research      | Examining Transit Assault Causation and Presenting Stakeholder-driven Mitigation Strategies and Tools to Reduce Assault Risk                           | \$500,000    |
| Foundational Research      | Redesign of Transit Bus Operator Compartment to Improve Safety, Operational Efficiency, and Passenger Accessibility (Bus Operator Compartment) Program | \$1,600,000  |
| Foundational Research      | Innovations in Transit Public Safety Projects  | \$1,606,451  |
| Foundational Research      | Public Safety Awareness Technology Evaluation (PSATE) Project  | \$100,000    |
| Foundational Research      | Transit Vehicle Manufacturing Study  | \$250,000    |
| Foundational Research      | Transit Cost and Delivery Project  | \$469,565    |
| Innovation and Development | Advanced Driver Assistance Systems (ADAS) for Transit Buses Demonstration & Automated Transit Bus Maintenance and Yard Operations Demonstration        | \$7,096,061  |
| Innovation and Development | Mobility, Access, and Transportation Insecurity (MATI)   | \$6,000,000  |
| Innovation and Development | Enhancing Mobility Innovation (EMI) Program  | \$4,050,251  |
| Innovation and Development | Integrated Mobility Innovation (IMI) Demonstration Program   | \$15,243,674 |
| Innovation and Development | Accelerating Innovative Mobility (AIM) Program   | \$11,928,155 |
| Innovation and Development | FY 2020 Safety Research and Demonstration (SRD)—Safety Program   | \$7,513,656  |
| Innovation and Development | Real-Time Transit Infrastructure and Rolling Stock Condition Assessment Demonstration Program  | \$1,368,816  |
| Innovation and Development | Public Transportation COVID-19 Research Demonstration Grant Program  | \$7,919,864  |
| Innovation and Development | MARTA Track Inspection & Asset Management Research and Demonstration   | \$4,225,000  |
| Innovation and Development | FY 2016 Safety Research and Demonstration (SRD)—Infrastructure Program   | \$5,101,740  |
| Innovation and Development | Unmanned Aircraft Systems (UAS) Research Roadmap and Use Cases   | \$500,000    |

| Type                          | Project Title   | FTA Funding          |
|-------------------------------|---|----------------------|
| Demonstration and Deployment  | Accelerating Advanced Digital Construction Management (ADCMS)   | \$5,100,000          |
| Demonstration and Deployment  | Human Services Coordination Research (HSCR) Deployment Program  | \$1,039,130          |
| Demonstration and Deployment  | Public Transportation Vehicle Deployment Program*   | \$12,660,824         |
| Evaluation and Implementation | Real-Time Transit Infrastructure and Rolling Stock Condition Assessment Research and Demonstration Program Evaluation | \$750,000            |
| Evaluation and Implementation | FY 2020 Safety Research and Demonstration (SRD) Program Evaluation—Safety Program Evaluations                         | \$700,000            |
| Evaluation and Implementation | FY 2016 Safety Research and Demonstration (SRD) Program Evaluation—Infrastructure Program Evaluations                 | \$750,000            |
| Evaluation and Implementation | Mobility Innovation Demonstration Programs Evaluation   | \$3,050,000          |
| Evaluation and Implementation | Innovative Technology and Mobility Solutions Project Evaluation   | \$300,000            |
| <b>Total</b>                  |   | <b>\$208,958,431</b> |

\* In 2016, the LoNo Program matured from a research program to a capital discretionary program authorized by Federal public transportation law (49 U.S.C. § 5339(c)). However, the research demonstration program continued in FY 2025. FTA is still administering and overseeing some of these projects funded under the LoNo Research Program.



**Figure ES-2** Location of FTA Research Programs and Project Recipients

## Section 1

# Requirements for This Report

Federal public transportation law (49 U.S.C. § 5312(f)) requires FTA to post an annual report available to the public on its website by the first Monday in February of each year. This report must include:

- A description of each project that received assistance under this section during the preceding fiscal year.
- An evaluation of each project that received assistance in the preceding year, including any assessment conducted for demonstration and deployment projects.
- A strategic research roadmap proposal for allocations of amounts for assistance under this section for the current and subsequent fiscal year, including anticipated work areas, proposed demonstrations, and strategic partnership opportunities.

## Section 2

# Project and Program Descriptions

This report includes descriptions of projects and programs that received funding in FY 2025. Assistance definitions include planning and developing, awarding, managing, or evaluating an existing or new project or program. Program and project descriptions are categorized by statutory requirements pursuant to 49 U.S.C. § 5312 — Foundational Research, Innovation and Development, Demonstration and Deployment, and Evaluation and Implementation. Individual project and program descriptions include title, recipient(s), results, evaluation when applicable, and FTA funding.

## Section 3

# Foundational Research

In FY 2025, FTA funded projects and programs to conduct public transportation research to develop, deploy, and implement new and innovative ideas, practices, and approaches.

FTA had 13 active foundational research projects and programs in FY 2025 (see Table 3-1).

**Table 3-1** Research Programs and Projects Receiving Assistance from FTA, FY 2025

| Research Programs  |                      |
|--|----------------------|
| Project Title  | FTA Funding          |
| Transit Cooperative Research Program (TCRP)  | \$32,219,756         |
| Small Business Innovation Research (SBIR) Program  | \$1,627,693          |
| Component Assessment Program   | \$48,688,131         |
| Transit Vehicle Innovation Deployment Centers (TVIDC)  | \$22,099,664         |
| Safety Risk Management (SRM) and Analysis  | \$2,000,000          |
| Transit Operations and Emerging Data Interoperability Capacity Building  | \$500,000            |
| Mobility NeXt Research Design and Implementation   | \$2,000,000          |
| Examining Transit Assault Causation and Presenting Stakeholder-driven Mitigation Strategies and Tools to Reduce Assault Risk                           | \$500,000            |
| Redesign of Transit Bus Operator Compartment to Improve Safety, Operational Efficiency, and Passenger Accessibility (Bus Operator Compartment) Program | \$1,600,000          |
| Innovations in Transit Public Safety Projects  | \$1,606,451          |
| Public Safety Awareness Technology Evaluation (PSATE) Project  | \$100,000            |
| Transit Vehicle Manufacturing Study  | \$250,000            |
| Transit Cost and Delivery Project  | \$469,565            |
| <b>Total</b>   | <b>\$113,661,260</b> |

## Transit Cooperative Research Program (TCRP)

**Recipient:** National Academies of Sciences, Engineering, and Medicine (NAS) (see Table 3-2)

### Project Description:

TCRP is authorized by Federal public transportation law (49 U.S.C. § 5312(i)). This program delivers foundational and applied research with near-term and practical results that address key challenges facing the public transportation industry. The TCRP Oversight and Project Selection (TOPS) Commission, comprising senior industry leaders, represents the primary beneficiaries of TCRP research and serves as the governing board for TCRP, setting research priorities. TCRP also includes FTA's strategic research goals as criteria for screening and selecting projects, helping to extend FTA's reach further.

### Results:

TCRP is funded annually pursuant to 49 U.S.C. § 5338(a)(2)(G)(ii). The active TCRP projects include funding from FY 2021 for \$5,000,000; FY 2022 for \$6,578,592; FY 2023 for \$6,716,026; FY 2024 for \$6,891,389; and FY 2025 for \$7,033,749. In the last five fiscal years, TCRP completed 37 research reports (seven in FY 2025); 33 synthesis reports (seven in FY 2025); eight web-only documents (one in FY 2025); six legal research digests; and three Innovations Deserving Exploratory Analysis (IDEA) reports. In FY 2025, the TOPS Commission met to receive updates on TCRP projects and programs. Project sponsors presented the results of four projects on Future of Commuter Rail, Impacts of Substance Use on Transit, Tactile Wayfinding for the Visually Impaired, and Intermodal Passenger Facility Planning.

**FTA Funding:** \$32,219,756

**Table 3-2** Transit Cooperative Research Program (TCRP) Projects Receiving Assistance from FTA, FY 2025

| Project Title          | Project Recipient            | City and State   | FTA Award           |
|------------------------|------------------------------|------------------|---------------------|
| TCRP 30th Year—FY 2021 | National Academy of Sciences | Washington, D.C. | \$5,000,000         |
| TCRP 31st Year—FY 2022 | National Academy of Sciences | Washington, D.C. | \$6,578,592         |
| TCRP 32nd Year—FY 2023 | National Academy of Sciences | Washington, D.C. | \$6,716,026         |
| TCRP 33rd Year—FY 2024 | National Academy of Sciences | Washington, D.C. | \$6,891,389         |
| TCRP 34th Year—FY 2025 | National Academy of Sciences | Washington, D.C. | \$7,033,749         |
| <b>Total</b>           |                              |                  | <b>\$32,219,756</b> |

## Small Business Innovation Research (SBIR) Program

**Recipient:** The Volpe Center (see Table 3-3)

### Project Description:

The SBIR program supports small domestic businesses in conducting Federal research and development (R&D) with commercial potential. Federal law (15 U.S.C. § 638) requires each operating administration to set aside a portion of its annual research budget to fund SBIR contracts. FTA allocates 3.2 percent of its discretionary yearly research budget to SBIR contracts. This funding targets areas such as safety, operations, and maintenance in the transit sector. The program aims to stimulate small business' innovation, address Federal R&D needs, promote inclusive entrepreneurship, and boost the commercialization of federally funded innovations.

### Results:

FTA funds SBIR annually and partners with the Volpe Center to manage the projects. In FY 2025, FTA funded three Phase 1 projects, totaling \$600k, for tools to make transit safer and maintenance more proactive. In FY 2025, FTA's SBIR program advanced innovative solutions to improve transit safety, cybersecurity, and access to essential services. Innovations tested include a sensor-based system evaluated in real-world transit settings, which shows strong potential to reduce collisions by detecting pedestrians, tracking vehicles, and flagging near-miss incidents around buses and transit stops. FTA also funded a prototype cybersecurity tool, demonstrating the ability to detect digital threats in real time using artificial intelligence (AI) algorithms.

**FTA Funding:** \$1,627,693

**Table 3-3** Small Business Innovation Research (SBIR) Projects Receiving Funding from FTA, FY 2025

| Project Title  | Project Recipient                       | City and State       | FTA Award          |
|--|---|----------------------|--------------------|
| FTA Inter-agency Agreement with the Volpe Center for Phase I & II Projects | The Volpe Center                        | Cambridge, MA        | \$629,268          |
| Mitigation of Cybersecurity Failures- Phase I                              | Protection Engineering Consultants, LLC | Dripping Springs, TX | \$149,886          |
| Reduction of Transit Bus Collisions with Other Vehicles- Phase II          | Tranalytics, LLC                        | Bedford, MA          | \$424,926          |
| Connecting Individuals in "Food Deserts" to Healthy Foods- Phase II        | SPLUSM, LLC                             | Orlando, FL          | \$423,613          |
| <b>Total</b>   |   |                      | <b>\$1,627,693</b> |

## Component Assessment Program

**Recipient:** The Ohio State University and Auburn University (See Table 3-4)

### Project Description:

The program is authorized by Federal public transportation law (49 U.S.C. § 5312(h)). The program is managed by The Ohio State University and Auburn University, and conducts testing, evaluation, and analysis of vehicle components intended for use in alternative propulsion. The program's goals are to: 1) advance vehicle technology research; 2) support strategic capital investment; and 3) conduct comprehensive component testing.

### Results:

The program is funded annually pursuant to 49 U.S.C. § 5338(a)(2)(G)(i). FTA competitively selected The Ohio State University and Auburn University to manage the program in January 2017. The last five projects funded under this program include FY 2021 for \$5,000,000; FY 2022 for \$5,000,000; FY 2023 for \$5,104,455; FY 2024 for \$5,237,739; and FY 2025 for \$5,345,938. The total amount for active projects under this program is \$49,688,131. In FY 2025, FTA achieved several strategic milestones that underscore its commitment to innovation, safety, and infrastructure advancement. The program collaborated with four major transit agencies to complete two initial software models aimed at optimizing the detection and prevention of bus component failures and safety issues, as well as tracking and monitoring the health of transit buses. The program also successfully launched research initiatives, the execution of an advanced cybersecurity vulnerability assessment toolbox, and penetration testing on next-generation buses. Auburn University completed component assessment tests on two public transportation buses. FTA also expanded the program's laboratory infrastructure to support research, testing, evaluation, and analysis at two new centers.

**FTA Funding:** \$49,688,132

**Table 3-4** Component Assessment Program Projects Receiving Assistance from FTA, FY 2025

| Project Title  | Project Recipient         | City and State | FTA Award   |
|--|---------------------------|----------------|-------------|
| Component Assessment Program—Auburn University         | Auburn University         | Auburn, AL     | \$7,500,000 |
| Component Assessment Program—The Ohio State University | The Ohio State University | Columbus, OH   | \$7,500,000 |
| Bus Testing Centers—Auburn University                  | Auburn University         | Auburn, AL     | \$5,500,000 |
| Bus Testing Centers—The Ohio State University          | The Ohio State University | Columbus, OH   | \$4,500,000 |
| FY 2021 Appropriations—Auburn University               | Auburn University         | Auburn, AL     | \$1,500,000 |

| Project Title                                    | Project Recipient         | City and State | FTA Award           |
|--|---------------------------|----------------|---------------------|
| FY 2021 Appropriations—The Ohio State University | The Ohio State University | Columbus, OH   | \$1,500,000         |
| FY 2022 Appropriations—Auburn University         | Auburn University         | Auburn, AL     | \$2,500,000         |
| FY 2022 Appropriations—The Ohio State University | The Ohio State University | Columbus, OH   | \$2,500,000         |
| FY 2023 Appropriations—Auburn University         | Auburn University         | Auburn, AL     | \$2,552,227         |
| FY 2023 Appropriations—The Ohio State University | The Ohio State University | Columbus, OH   | \$2,552,227         |
| FY 2024 Appropriations—Auburn University         | Auburn University         | Auburn, AL     | \$2,618,870         |
| FY 2024 Appropriations—The Ohio State University | The Ohio State University | Columbus, OH   | \$2,618,870         |
| FY 2025 Appropriations—Auburn University         | Auburn University         | Auburn, AL     | \$2,672,969         |
| FY 2025 Appropriations—The Ohio State University | The Ohio State University | Columbus, OH   | \$2,672,969         |
| <b>Total</b>                                     |                           |                | <b>\$48,688,132</b> |

## Transit Vehicle Innovation Deployment Centers (TVIDC)

**Recipient:** CALSTART and the Center for Transportation and the Environment (CTE) (See Table 3-5)

### Project Description:

TVIDC researches the next generation of public transit vehicle technology and facilitates the deployment of an integrated public transportation innovation network. The goal of the program is to convene transit agencies and U.S. and transit vehicle manufacturers to assess bus propulsion industry needs, resource gaps, and barriers to the adoption of new technologies. TVIDC researches the field, coordinates, and disseminates information to the public transportation industry.

### Results:

FTA competitively selected CALSTART and CTE to support the continued innovation, development, and adoption of next-generation transit technologies made in America. In FY 2025, TVIDC evaluated bus technical specifications in collaboration with transit agencies and manufacturers, identifying cost drivers and inefficiencies to develop performance-based specifications. It also completed State of the Market Reports, under FTA review, based on interviews with 20 transit agencies on fire safety, highlighting suppression systems, testing protocols, and workforce training, as well as heating technologies.

**FTA Funding:** \$22,099,664

**Table 3-5** Transit Vehicle Innovation Deployment Centers (TVIDC) Projects Receiving Assistance from FTA, FY 2025

| Project Title   | Project Recipient                             | City and State | FTA Award           |
|---|---|----------------|---------------------|
| CTE Transit Vehicle Innovation Deployment Centers Project | Center for Transportation and the Environment | Atlanta, GA    | \$8,987,332         |
| CTE Transit Vehicle Innovation Deployment Centers Project | Center for Transportation and the Environment | Atlanta, GA    | \$2,750,000         |
| TVIDC FY24 Project  | CALSTART                                      | Pasadena, CA   | \$8,987,332         |
| Zero Emission Vehicle Barrier and Needs Assessments       | CALSTART                                      | Pasadena, CA   | \$1,375,000         |
| <b>Total</b>  |   |                | <b>\$22,099,664</b> |

## Safety Risk Management (SRM) and Analysis

**Recipient:** The Volpe Center

### Project Description:

This program analyzes data to identify, assess, and prioritize transit safety risks. SRM also monitors and evaluates data related to mitigation strategies. The goals of the program are to: 1) assess data needs quality and identify data gaps for assessing transit risks, and 2) provide recommendations for addressing data gaps and improving data quality.

### Results:

This inter-agency agreement with the Volpe Center was awarded on January 1, 2022. In FY 2025, the program continued research activities on several key topics related to safety and security data collection, analysis, and normalization. The program conceptualized a project to gather feedback from National Transit Database (NTD) reporters, identifying opportunities to enhance safety and security data reporting, investigation, data entry, validation, analysis, and outputs. SRM also conducted a literature review on best practices for data normalization, including vehicle revenue miles and unlinked passenger trips, for safety and security analysis.

**FTA Funding:** \$2,000,000

## Transit Operations and Emerging Data Interoperability Capacity Building

**Recipient:** The Intelligent Transportation Society (ITS) of America

### **Project Description:**

The purpose of this project is to inform FTA's future transit standards-making efforts by promoting accessible and digestible knowledge sharing about data-related resources, needs, and strategies to advance interoperability and build capacity among industry stakeholders.

### **Results:**

This one-time project was awarded to ITS America on July 22, 2024. In FY 2025, the project produced a baseline scan report, cataloged 320 industry contacts, 87 case studies, and 83 existing informational standards and specifications resources. In addition, two peer exchange stakeholder meetings were held, bringing together participants from 76 organizations to discuss initial focus areas and case studies related to transit data interoperability. Both activities directly supported the development of a comprehensive transit data interoperability roadmap, aimed at enhancing the usability and efficiency of public transportation through government and industry action by capitalizing on innovation.

**FTA Funding:** \$500,000

## Mobility NeXt Research Design and Implementation

**Recipient:** The Volpe Center

### **Project Description:**

This project develops a multi-year research framework for the Mobility NeXt Program. The goal of this project is to help the Mobility NeXt Program leverage the benefits of innovative technology and meet the needs of travelers.

### **Results:**

This inter-agency agreement was awarded on September 9, 2022. In FY 2025, the Volpe Center advanced understanding of emerging technology trends within the transit industry. The project completed an internal report documenting methods and tools available to measure transit rider mobility behaviors

and preferences. The project also conducted research scans focused on AI, assistive wayfinding and navigation, and adaptable payment systems. The research scans drew on publicly available reports and insights from interviews with transit stakeholders and vendors. The findings from the internal report, research scans, and interviews set priorities and guided research focus areas for future Mobility NeXt demonstration programs.

**FTA Funding:** \$2,000,000

## Examining Transit Assault Causation and Presenting Stakeholder-driven Mitigation Strategies and Tools to Reduce Assault Risk

**Recipient:** University of South Florida (USF) Center for Urban Transportation Research (CUTR)

### **Project Description:**

This project evaluates data collection and reporting activities to develop a better understanding of transit assaults on workers and transit riders. The goals of the project are to: 1) gain valuable industry insight through robust stakeholder involvement; 2) study transit assault events and local data collection, analysis, and reporting; 3) review community-based challenges that are shared with their cities/local governments; and 4) develop mitigation strategies.

### **Results:**

On August 9, 2023, FTA competitively selected CUTR through a NOFO as the recipient to identify public safety risks for transit workers and riders. In FY 2025, the project completed two technical memos and submitted them to FTA for review. FTA internally used the information in the memos to address the issue of worker assaults. The data was also used to determine the most effective mitigation strategies for minimizing risks to transit users and promoting the implementation of safety measures.

**FTA Funding:** \$500,000

## Redesign of Transit Bus Operator Compartment to Improve Safety, Operational Efficiency, and Passenger Accessibility (Bus Operator Compartment) Program

**Recipient:** New Orleans Regional Transit Authority (NORTA) and International Transportation Learning Center (ITLC)

### Project Description:

This program develops innovative designs for transit bus operator compartments in collaboration with bus manufacturers, technology providers, engineering firms, and transit agencies. The goals are to: 1) enhance safety for both bus operators and the public, and 2) improve operator access to vehicle controls and instruments while maintaining passenger accessibility.

### Results:

On October 8, 2020, FTA announced NORTA and ITLC as the recipients of a competitive NOFO to support the redesign of transit bus operator compartments. This program concluded in FY 2025. The program produced two separate internal reports on compartment redesign and future actions. The program developed interactive webinars on the Bus of the Future design concepts. The program also installed barriers in 108 NORTA buses. The program improved passenger safety, minimized operator assaults, and maintained positive passenger interactions.

**FTA Funding:** \$1,600,000

**Table 3-6** Redesign of Transit Bus Operator Compartment to Improve Safety, Operational Efficiency, and Passenger Accessibility (Bus Operator Compartment) Active Projects in FY 2025

| Project Title   | Project Recipient                                   | City and State    | FTA Award          |
|---|---|-------------------|--------------------|
| Implementation of Adding Shields and Barriers on Bus Fleet to Protect Bus Operators           | New Orleans Regional Transit Authority (NORTA)      | New Orleans, LA   | \$600,000          |
| Redesign of Transit Bus Operator Compartment to Improve Operator and Passenger Safety Project | International Transportation Learning Center (ITLC) | Silver Spring, MD | \$1,000,000        |
| <b>Total</b>  |   |                   | <b>\$1,600,000</b> |

## Innovations in Transit Public Safety Projects

**Recipient:** State and local governmental entities, transit authorities, non-profit organizations, or a consortium of entities, including providers of public transportation (see Table 3-7)

### Project Description:

This effort is part of FTA’s Human Trafficking Awareness and Public Safety Initiative. This program supports the development of innovative products and services to prevent human trafficking and reduce crime on public transit vehicles and in facilities. The goals of the projects are to: 1) develop innovative projects to assist transit agencies with identifying and adopting specific measures to address public safety in transit systems, including crime prevention, human trafficking, and operator assault; and 2) maximize the transit industry’s collective impact to address human trafficking and other public safety concerns.

### Results:

On January 28, 2020, FTA announced a \$5.4 million grant selection from a NOFO to work with public and private partners to fight human trafficking on America’s public transportation system. In FY 2025, the active projects under this program continued to empower transit agencies and other organizations to develop local solutions to address human trafficking on public transportation. For example, the North Carolina Department of Transportation continued to provide videos with information on recognizing and reporting potential human trafficking activity on public transportation in the State. Also, the Dallas Area Rapid Transit maintained its “A Safe Place to Get Help” campaign, reaching local youth services, shelters, and organizations to support children in crisis.

**FTA Funding:** \$1,606,451

**Table 3-7** Innovations in Transit Public Safety Projects Receiving Assistance from FTA, FY 2025

| Project Title   | Project Recipient                              | City and State   | FTA Award |
|---|--|------------------|-----------|
| Sun Tran Public Safety Initiative   | City of Tucson                                 | Tucson, AZ       | \$221,100 |
| Santa Clara Valley Transportation Authority (VTA) - Human Trafficking Prevention Program                                    | Santa Clara Valley Transportation Authority    | Santa Clara, CA  | \$350,000 |
| Washington Metropolitan Area Transit Authority (WMATA) (Federal Fiscal Year (FFY) 19 Section 5312 Public Safety Pilot Study | Washington Metropolitan Area Transit Authority | Washington, D.C. | \$176,000 |
| Train Front Line Personnel on Human Trafficking   | Bi-State Development Agency                    | St. Louis, MO    | \$187,500 |

| Project Title  | Project Recipient                           | City and State | FTA Award          |
|--|---|----------------|--------------------|
| Statewide Educational and Training Program   | North Carolina Department of Transportation | Raleigh, NC    | \$120,000          |
| Crime Prevention and Public Safety Rolling Classroom for Statewide Training                                  | Grand Gateway EDA Pelivan Transit           | Big Cabin, OK  | \$350,475          |
| Public Safety Awareness Marketing and Public Outreach Campaign of Public Safety Officers on Transit Vehicles | Central Midlands Regional Transit Authority | Columbia, SC   | \$151,776          |
| Training and Awareness Campaign Against Human Trafficking  | Dallas Area Rapid Transit                   | Dallas, TX     | \$49,600           |
| <b>Total</b>   |   |                | <b>\$1,606,451</b> |

## Public Safety Awareness Technology Evaluation (PSATE) Project

**Recipient:** Pipeline and Hazardous Materials Safety Administration (PHMSA)

### Project Description:

This effort identifies, tests, gauges, and documents technologies to reduce pedestrian fatalities within and around rail systems. These technologies have the potential to be applied on a larger scale. The project goal is to identify and document technologies that have been demonstrated to help address pedestrian fatalities within and around rail systems, with the potential to be applied in larger conditions.

### Results:

This inter-agency PSATE agreement was awarded on August 22, 2022, to PHMSA. PHMSA served as the lead for the Department for PSATE, with several modal administrations participating. FTA's participation concluded in FY 2025. The project completed Phase I of the PSATE, delivering five internal reports on the testbed, technology, evaluation, and other topics.

**FTA Funding:** \$100,000

## Transit Vehicle Manufacturing Study

**Recipient:** The Volpe Center

**Project Description:**

A study to better understand the state of the transit vehicle manufacturing (TVM) industries for buses, cutaways, and railcars. The goals of this project are to: 1) provide a scan of previous research and a current snapshot of the three TVM markets; 2) identify and summarize causal factors that impact the health of the transit vehicle manufacturing industry for each sector; and 3) develop a list of options to improve resilience and increase competition in the industry.

**Results:**

This inter-agency agreement with the Volpe Center was awarded on August 22, 2022. In FY 2025, the project completed an internal report describing the status of the bus, cutaway, and railcar TVM industries. It also identified challenges of the TVM industry and discussed ideas for addressing those challenges.

**FTA Funding:** \$250,000

## Transit Cost and Delivery Project

**Recipient:** Eno Center for Transportation

**Project Description:**

This project aims to analyze current and historical trends in public transit project delivery (both domestically and internationally), to understand the drivers behind the high capital costs of transit projects and the delayed delivery timelines in the U.S. The goals are to: 1) produce a full foundational report with recommendations for Federal, State, and local agencies and project sponsors; 2) develop project case studies; 3) create a database of U.S. and select international transit construction projects that list key metrics; 4) produce a report on international decision-making processes for 10 select countries; and 5) disseminate foundational report findings and execute an outreach plan.

**Results:**

This project concluded in FY 2025. The project completed two reports: The People Behind Major Transit Projects and Analysis of the Federal Transit Administration's Capital Cost Database. These final reports include foundational

case studies, a transit capital delivery symposium, and the creation of a database on transit project characteristics.

**FTA Funding:** \$469,565

## Section 4

# Innovation and Development

### Project Description:

FTA's innovation and development projects and programs were designed to improve public transportation systems nationwide. The programs provided more efficient and effective delivery of public transportation services, as well as improvements in technological capacity. FTA had 11 active development programs and projects in FY 2025 (see Table 4-1).

**Table 4-1** Development Programs and Projects Receiving Assistance from FTA, FY 2025

| Demonstration Programs  |                     |
|---|---------------------|
| Project Title   | FTA Funding         |
| Advanced Driver Assistance Systems (ADAS) for Transit Buses Demonstration & Automated Transit Bus Maintenance and Yard Operations Demonstration | \$7,096,061         |
| Mobility, Access, and Transportation Insecurity (MATI)  | \$6,000,000         |
| Enhancing Mobility Innovation (EMI) Program   | \$4,050,251         |
| Integrated Mobility Innovation (IMI) Demonstration Program  | \$15,243,674        |
| Accelerating Innovative Mobility (AIM) Program  | \$11,928,155        |
| FY 2020 Safety Research and Demonstration (SRD)—Safety Program  | \$7,513,656         |
| Real-Time Transit Infrastructure and Rolling Stock Condition Assessment Demonstration Program   | \$1,368,816         |
| Public Transportation COVID-19 Research Demonstration Grant Program   | \$7,919,864         |
| MARTA Track Inspection & Asset Management Research and Demonstration  | \$4,225,000         |
| FY 2016 Safety Research and Demonstration (SRD)—Infrastructure Program  | \$5,101,740         |
| Unmanned Aircraft Systems (UAS) Research Roadmap and Use Cases  | \$500,000           |
| <b>Total</b>  | <b>\$70,947,217</b> |

## Advanced Driver Assistance Systems (ADAS) for Transit Buses Demonstration & Automated Transit Bus Maintenance and Yard Operations Demonstration

**Recipient:** Transit authorities partnering with local governments, educational institutions, and private entities (see Table 4-2)

### **Project Description:**

ADAS aims to establish the feasibility of automated transit bus maintenance, yard operations, and various use cases, improving the understanding of transit automation. The goals of the program are to 1) increase safety and efficiency; 2) study the areas of technical issues, user acceptance, operations, maintenance costs, workforce training and transition, and institutional issues; and 3) stimulate technology development.

### **Results:**

On June 8, 2023, FTA announced the competitive selection of five recipients for the ADAS Program to improve safety, efficiency, and accessibility on the road and in bus maintenance yards. In FY 2025, the program supported the testing of automated technology systems in an active transit bus depot. For example, the Capital Metropolitan Transportation Authority (CapMetro) yard operations project completed 325 automated test cases: 199 with an operator and 126 without, achieving a high pass rating in both scenarios. The testing also provided many lessons learned on hardware and software integration, vehicle upkeep, and dynamic yard conditions that will guide planning for future testing and demonstrations.

### **Program Evaluation:**

The program will have an independent evaluation as statutorily required.

**FTA Funding:** \$7,096,061

**Table 4-2** Advanced Driver Assistance Systems (ADAS) for Transit Buses Demonstration & Automated Transit Bus Maintenance and Yard Operations Demonstration Projects Receiving Assistance from FTA, FY 2025

| Project Title   | Project Recipient                                | City and State     | FTA Award          |
|---|--|--------------------|--------------------|
| CapMetro Yard Automation Research & Deployment (YARD) Program               | Capital Metropolitan Transportation Authority    | Austin, TX         | \$949,500          |
| PSTA Autonomous Bus Yard Parking and Recall Demonstration                   | Pinellas Suncoast Transit Authority (PSTA)       | St. Petersburg, FL | \$892,609          |
| Validation and Real-World Pilot of ADAS Technologies in Large Transit Buses | University of Alabama                            | Tuscaloosa, AL     | \$2,000,000        |
| ADAS for Bustang Intercity and Regional Bus Transit                         | Colorado Department of Transportation (CDOT)     | Denver, CO         | \$1,253,952        |
| CTfastrak ADAS Safety and Accessibility Deployment Project                  | Connecticut Department of Transportation (CTDOT) | Newington, CT      | \$2,000,000        |
| <b>Total</b>  |  |                    | <b>\$7,096,061</b> |

## Mobility, Accessibility, and Transportation Insecurity (MATI)

**Recipient:** University of Minnesota Center for Transportation Studies

### Project Description:

MATI is designed to solicit and support innovative ideas to address transportation insecurity. Insecurity refers to when people are unable to use transit regularly because it is unreliable. MATI aims to improve the reliability of transit and tests innovative interventions to improve mobility, measuring their impact on individuals, families, and communities. The goals are to: 1) develop community-driven plans with metrics on the costs of poor mobility; 2) implement and test local solutions; and 3) quantify the benefits of improved access to jobs, healthcare, education, and overall well-being.

### Results:

In August 2024, FTA announced the competitive selection of the University of Minnesota as the recipient of MATI. In FY 2025, the program awarded [four communities](#) \$700,000 each to undertake community-shaped, innovative demonstration projects to improve transportation insecurity. In addition, the program awarded [four small rural communities](#) \$100,000 each in grants to help plan community-shaped, innovative demonstration projects to address transportation insecurity. The eight selected recipients completed the planning of their scope of work and their local planning.

**Program Evaluation:**

Once a project is active, MATI will conduct an independent evaluation for each selected project, as required by statute.

**FTA Funding:** \$6,000,000

## Enhancing Mobility Innovation (EMI) Program

**Recipient:** Transit authorities, State and local governments, and State DOTs in partnership with other transit providers (see Table 4-3)

**Project Description:**

EMI supports a vision for a safe, dependable, and accessible mobility ecosystem for all travelers. Projects advance emerging technologies, strategies, and innovations in passenger-centric mobility in two distinct areas: 1) concept development and demonstration projects that improve mobility and enhance the rider experience; and 2) projects that support the development of software solutions to facilitate demand-response public transportation.

**Results:**

On August 10, 2022, FTA announced the project selections for the EMI program to improve customer convenience, create easier ways to pay for transit, and enhance transit schedules based on rider demand. In FY 2025, the program supported a demonstration of an open, cloud-based omnichannel contact center to improve customer service, scheduling, dispatch, and reconciliation across multiple partner transit agencies and potential non-profit or for-profit partners. The program also finalized and tested a “middleware” solution using a Transactional Data Specification to exchange customer profiles, trip details, provider information, and live trip status.

**Program Evaluation:**

The EMI Program will have an independent evaluation for each active project as statutorily required.

**FTA Funding:** \$4,050,251

**Table 4-3** Enhancing Mobility Innovation (EMI) Projects Receiving Assistance from FTA, FY 2025

| Project Title   | Project Recipient                                   | City and State    | FTA Award          |
|---|---|-------------------|--------------------|
| San Francisco Bay Area Regional Demand Responsive Transit Brokerage Service: Software for End-to-End Demand Responsive Transit Trip Planning and Reservations | Metropolitan Transportation Commission              | San Francisco, CA | \$500,000          |
| Unify Richmond Moves: Pilot Program to Coordinate Microtransit and Paratransit Riders   | City of Richmond                                    | Richmond, CA      | \$250,000          |
| Transit App to Develop a New Digital Survey   | City of Santa Monica's Big Blue Bus                 | Santa Monica, CA  | \$330,432          |
| Vanpool Microtransit Pilot Program  | Metropolitan Washington Council of Governments      | Washington, D.C.  | \$250,000          |
| Software Application for Transit Agencies   | University of Maryland-College Park                 | College Park, MD  | \$800,000          |
| Fare Eligibility via Connections to Other State Databases   | Rochester Genesee Regional Transportation Authority | Rochester, NY     | \$283,219          |
| Software Solutions to Facilitates Integrated Demand-Response Public Transportation with Real-Time Open Data Exchange  | NEOride   | Wadsworth, OH     | \$338,600          |
| Pilot Program to Finetune Data by Scaling the Identification of Data Quality Issues and Sharing Improved Datasets   | Mobility Data, Inc.                                 | Portland, OR      | \$798,000          |
| Demonstrate a transit twin, which will provide real-time occupancy, operations, and efficiency information, predictions and simulation capabilities           | Collier Area Transit                                | Plano, TX         | \$500,000          |
| <b>Total</b>  |   |                   | <b>\$4,050,251</b> |

## Integrated Mobility Innovation (IMI) Demonstration Program

**Recipient:** Transit authorities partnering with local governments, educational institutions, and private entities (see Table 4-4)

### Project Description:

IMI highlights best practices, partnerships, and technologies to enhance the effectiveness of public transportation, increase efficiency, improve quality, promote safety, and enhance the traveler experience. IMI helps communities make it easier for people to use transit, especially older adults and people with mobility issues. The goals of the program are to: 1) explore new business approaches and emerging technology solutions; 2) enable communities to adopt innovative mobility solutions, enhancing transportation efficiency and

effectiveness; and 3) facilitate the widespread deployment of proven mobility solutions to foster expanded personal mobility.

### Results:

On March 16, 2020, FTA announced the selected projects for the IMI Program to pilot targeted mobility services. In FY 2025, the program launched the Cecil On-Demand Mobility Platform and Service Solution (COMPASS), an on-demand transit service. Local project initiatives under COMPASS also conducted outreach through conference presentations, webinars, or other engagements to support the transfer of the IMI recipients' knowledge to peers in the public transportation industry.

### Program Evaluation:

The IMI program will have an independent evaluation for each selected project as statutorily required.

**FTA Funding:** \$15,243,674

**Table 4-4** Integrated Mobility Innovation (IMI) Projects Receiving Assistance from FTA, FY 2025

| Project Title  | Project Recipient   | City and State     | FTA Award   |
|--|---|--------------------|-------------|
| Matanuska-Susitna Borough Centralized Mobility Management Software Project                         | Matanuska-Susitna Borough   | Knik- Fairview, AK | \$231,191   |
| Testing and Deployment of Automated Buses on Connecticut Fastrak                                   | Connecticut Department of Transportation  | Hartford, CT       | \$2,000,000 |
| Atlanta-Region Rider Information and Data Evaluation System (ATL RIDES)                            | Georgia Regional Transportation Authority for Atlanta-Region Transit Link Authority (ATL) | Atlanta, GA        | \$430,400   |
| Kootenai County 2019 Integrated Mobility Innovation (IMI)  | Kootenai County   | Coeur d'Alene, ID  | \$150,000   |
| Road to Recovery: Driving Transformational Change and Removing Barriers for the Recovery Community | Cecil County, Maryland  | Elkton, MD         | \$562,845   |
| Transportation for Rural and Small Communities   | Independent Transportation Network (ITN)  | Portland, ME       | \$1,658,025 |
| Comprehensive Healthcare Access with Rural Transit Solutions (CHARTS)                              | Michigan Department of Transportation   | Lansing, MI        | \$276,499   |
| Northeastern Wake County Rural Microtransit Service  | Wake County Human Services  | Raleigh, NC        | \$393,527   |
| Tompkins Mobility-as-a-Service (MaaS) Phase I  | Tompkins County   | Ithaca, NY         | \$820,000   |
| Regional Cloud-Based Traffic Management Artificial Intelligence System                             | Central Ohio Transit Authority  | Columbus, OH       | \$1,725,000 |

| Project Title   | Project Recipient   | City and State | FTA Award           |
|---|---|----------------|---------------------|
| EZfare: The Gateway   | Stark Area Regional Transit Authority (SARTA)             | Canton, OH     | \$1,997,503         |
| Grand Gateway Economic Development Association—PICK Mobility on Demand  | Grand Gateway Economic Development Association            | Big Cabin, OK  | \$1,514,479         |
| STEPS to Mobility on Demand and Mobility Payment Integration  | Tri-County Metropolitan Transportation District of Oregon | Portland, OR   | \$1,812,282         |
| Rural Integrated Mobility—Connecting paratransit and fixed-route services through modern ticketing technologies | Crawford Area Transportation Authority (CATA)             | Meadville, PA  | \$715,233           |
| Expanding Rural Access to Non-Emergency Medical Transportation  | Coordinated Community Transportation Systems              | Pierre, SD     | \$401,760           |
| Boxtown/Westwood On-Demand Transit Pilot Project  | Memphis Area Transit Authority                            | Memphis, TN    | \$394,000           |
| Virginia Rural Microtransit Deployment Initiative   | Virginia Department of Rail and Public Transportation     | Wise, VA       | \$160,930           |
| Boxtown/Westwood On-Demand Transit Pilot Project  | Memphis Area Transit Authority                            | Memphis, TN    | \$394,000           |
| Virginia Rural Microtransit Deployment Initiative   | Virginia Department of Rail and Public Transportation     | Wise, VA       | \$160,930           |
| <b>Total</b>  |   |                | <b>\$15,243,674</b> |

## Accelerating Innovative Mobility (AIM) Program

**Recipient:** Transit authorities partnering with local governments, educational institutions, and private entities (see Table 4-4)

### Project Description:

AIM displays innovative transit technologies, practices, and solutions to advance the state of the practice for public transportation in the U.S. The goals of the program are to: 1) identify, test, and prove out new approaches, technologies, and service models; 2) promote the most promising mobility innovations that can be implemented more broadly through FTA's capital programs; and 3) establish a national network of transit stakeholders that are incorporating innovative approaches and business models to improve mobility for travelers.

### Results:

On August 27, 2020, FTA announced the competitive selection for the AIM Program from a NOFO. In FY 2025, the program supported the development and demonstration of selected innovative transit solutions to advance transit safety, operational efficiency, and enhance rider experience. Several projects

completed demonstrations and submitted draft final reports to FTA for internal review. For example, one project demonstrated a modeling system to enable faster and more efficient design, verification, and safety certification, as well as validation of new subway signaling system deployments.

**Project/Program Evaluation:**

The AIM Program will evaluate each selected project independently, as required by statute.

**FTA Funding:** \$11,928,155

**Table 4-5** Accelerating Innovative Mobility (AIM) Projects Receiving Assistance from FTA, FY 2025

| Project Title  | Project Recipient  | City and State     | FTA Award   |
|--|--|--------------------|-------------|
| Travel Rewards Research Pilot  | Los Angeles County Metropolitan Transportation Authority                     | Los Angeles, CA    | \$700,000   |
| Implementing App-Based, Inter-Agency Fare Purchase and Trip Planning in the Rocky Mountain West                          | Regional Transportation District   | Denver, CO         | \$687,000   |
| Creating the World's First Integrated Mobility Solution  | Delaware Transit Corporation   | Dover, DE          | \$317,692   |
| Transit Integration: PSTA Direct Connect Service   | Pinellas Suncoast Transit Authority  | St. Petersburg, FL | \$120,000   |
| GRTA KOKO Birds AIM for the Future Freedom of Mobility on the Patriotic Route  | Guam Regional Transit Authority  | Guam               | \$1,950,106 |
| RTA Regional Coordination—A Technological Solution to Coordinate Regional Transportation, Creating Efficiency in Service | Iowa Department of Transportation  | Ames, IA           | \$120,000   |
| IMPACT South Cook Improving Metra, Pace, and CTA Together, South Cook  | Cook County Department of Transportation and Highways                        | Chicago, IL        | \$330,000   |
| IndyGo Mobility Concierge  | Indianapolis Public Transportation Corporation                               | Indianapolis, IN   | \$400,000   |
| An Innovative Solution to Dynamically Manage Resource Capacity in Real-time  | Transit Authority of the Lexington Fayette Urban County Government (Lextran) | Lexington, KY      | \$422,625   |
| AI Communication Platform for Revenue Expansion  | Capital Area Transit System  | Baton Rouge, LA    | \$250,000   |
| Installation of On-Bus Mobile Ticket Validators and Development of an Origin-Destination-Transfer (ODX) Model            | Pioneer Valley Transit Authority   | Springfield, MA    | \$617,000   |
| Montgomery County Mobile Ticketing Project   | Montgomery County Maryland   | Rockville, MD      | \$468,820   |

| Project Title  | Project Recipient   | City and State    | FTA Award           |
|--|---|-------------------|---------------------|
| Southern Minnesota Mobility as a Service (MaaS) Platform   | Minnesota Department of Transportation                            | St. Paul, MN      | \$628,000           |
| Cost-Effective Advanced Driver Assistance System (ADAS) to Ensure ADA-Compliant Level Boarding for Bus Rapid Transit | Kansas City Area Transportation Authority                         | Kansas City, MO   | \$600,000           |
| Transforming Public Transit in Wilson with Rural On-Demand Microtransit  | City of Wilson  | Wilson, NC        | \$250,000           |
| Beyond Verification & Validation (V&V) for CBTC/UWB Systems  | New York Metropolitan Transit Authority                           | New York City, NY | \$180,000           |
| Enhancing Life with Automated Transportation for Everyone (ELATE)  | Western Reserve Transit Authority                                 | Youngstown, OH    | \$2,331,000         |
| Near Real-Time Large Transit Network Reporting System  | Oregon Department of Transportation                               | Portland, OR      | \$480,000           |
| Advancing Geofencing Functionality   | Rhode Island Public Transit Authority                             | Providence, RI    | \$244,000           |
| AI based smart dispatch for dynamic data driven Micro-Transit Service  | West River Transit Authority                                      | Spearfish, SD     | \$308,912           |
| Memphis Integrated Mobility Framework  | Memphis Area Transit Authority                                    | Memphis, TN       | \$483,000           |
| Seamless Transportation Services for the Greater Morgantown Area   | Monongalia Urban Mass Transit Authority dba Mountain Line Transit | Morgantown, WV    | \$40,000            |
| <b>Total</b>   |   |                   | <b>\$11,928,155</b> |

## FY 2020 Safety Research and Demonstration (SRD)—Safety Program

**Recipient:** Transit authorities partnering with local governments, educational institutions, and private entities (see Table 4-6)

### Project Description:

The FY 2020 SRD Program evaluates advanced technologies and innovative safety solutions to prevent suicide and trespassing hazards on rail systems. The program also improves safety at highway-rail grade crossings and shared corridor operations. The program goals are to: 1) explore advanced technologies, designs, and/or practices to mitigate and prevent safety hazards on rail transit systems; and 2) evaluate the cost-effectiveness and practicality of potential solutions.

**Results:**

On October 8, 2020, FTA announced the competitive selection for the FY 2020 SRD recipients. In FY 2025, the program enabled transit agencies to implement advanced safety technologies, delivering notable outcomes. For example, the New York Metropolitan Transportation Authority (NY MTA) conducted multiple impact tests using protection layers, a dummy, and a sled to study various materials, speeds, and resulting injuries. The project presented data to the New York City Subway on incident report analysis and computer simulation of pedestrian impacts and illustrated possible solutions, including energy-mitigating material on the train front and track bed. The innovative new designs and projects protected transit employees and passengers, as well as improved the overall safety and reliability of the service.

**FTA Funding:** \$7,513,656

**Table 4-6** FY 2020 Safety Research and Demonstration (SRD)—Safety Active Projects in FY 2025

| Project Title   | Project Recipient   | City and State     | FTA Award          |
|---|---|--------------------|--------------------|
| CTA's Third Rail Safety Enhancement Pilot Project   | Chicago Transit Authority (CTA)                                     | Chicago, IL        | \$1,183,091        |
| MDOT MTA Track Intrusion Detection and Alert System   | Maryland Department of Transportation (MDOT)                        | Hanover, MD        | \$675,000          |
| An Artificial Intelligence-Aided System for Automated Detection of Trespassing at Grade Crossings   | Rutgers, The State University of New Jersey                         | New Brunswick, NJ  | \$357,072          |
| Designed for Impact- Innovative Approach to Train Front-end Safety and Collision Fatality Reduction | New York Metropolitan Transportation Authority                      | New York, NY       | \$3,450,907        |
| Watch Out for CityLYNX! Be Streetcar Smart  | City of Charlotte   | Charlotte, NC      | \$56,080           |
| TriMet Risk Ranking Tool and Data Validation for Grade Crossing Safety Enhancement                  | Tri-County Metropolitan Transportation District of Oregon (Tri-Met) | Portland, OR       | \$825,506          |
| Transit Track Worker & First Responder Safety Protection Demonstration Project                      | Southeastern Pennsylvania Transportation Authority (SEPTA)          | Philadelphia, PA   | \$742,000          |
| Utah Transit Authority Suicide Prevention Research and Demonstration Project                        | Utah Transit Authority (UTA)  | Salt Lake City, UT | \$224,000          |
| <b>Total</b>  |   |                    | <b>\$7,513,656</b> |

## Real-Time Transit Infrastructure and Rolling Stock Condition Assessment Demonstration Program

**Recipient:** Transit authorities, local governments, non-profit organizations, and State DOTs (see Table 4-7)

### **Project Description:**

This program utilizes state-of-the-art technologies, including smart sensors, unmanned aerial vehicles, and big data analytics, to support innovative approaches in eliminating or mitigating known public transportation infrastructure deficiencies. These technologies enable real-time, detailed monitoring and reporting of infrastructure conditions. The goals of the program are to: 1) explore advanced cutting-edge technologies that can provide real-time condition assessment of transit capital assets and facilities; 2) allow a more effective way for transit agencies to assess, detect, monitor, and track deficiencies and defects related to infrastructure and rolling stock; and 3) evaluate the cost-effectiveness and the practicality of proposed state-of-the-art solutions.

### **Results:**

On May 28, 2020, FTA announced the competitive selection for this program to demonstrate and evaluate innovative technologies and designs aimed at improving the state of good repair for transit agencies. In FY 2025, projects in this program enabled transit agencies to pilot innovative safety technologies. For example, the Utah Transit Authority (UTA) completed the data collection and submitted the first draft final report to FTA for internal review. The project provided a proof of concept for polarized infrared and optical imaging systems for monitoring transit infrastructure conditions. Also, the Dallas Area Rapid Transit (DART) completed its “Real-Time Asset Management (RTAM) and Digital Condition Assessment Demonstration” project. The project utilized the application of Light Detection and Ranging (LiDAR), photogrammetry, AI technology, and virtual reality to scan and analyze the real-time conditions of the DART catenary system, tracks, tunnels, bridges, stations, and other objects within 25 meters of the right-of-way (ROW).

**FTA Funding:** \$1,368,816

**Table 4-7** Real-Time Transit Infrastructure and Rolling Stock Condition Assessment Demonstration Program Receiving Assistance from FTA in FY 2025

| Project Title  | Project Recipient  | City and State     | FTA Award          |
|--|--|--------------------|--------------------|
| Real Time Track and Vehicle Health Monitoring through Rail-mounted Load Quantification Smart Sensors | Board of Trustees of the University of Illinois            | Champaign, IL      | \$395,000          |
| Mobile LiDAR: Modernizing Condition Assessments—An innovative approach to data acquisition           | Maryland Department of Transportation                      | Baltimore, MD      | \$150,000          |
| The Digital Twin Paradigm for Real-Time Transit Infrastructure Maintenance                           | Regional Transportation Commission of Washoe County        | Reno, NV           | \$131,661          |
| SEPTA Regional Rail Automated Wire Scan  | Southeastern Pennsylvania Transportation Authority (SEPTA) | Philadelphia, PA   | \$170,000          |
| DART Real-Time Infrastructure and Asset Digital Condition Assessment Project                         | Dallas Area Rapid Transit (DART)                           | Dallas, TX         | \$184,000          |
| Polarized Infrared and Optical Imaging System for Transit Infrastructure Condition Assessment        | Utah Transit Authority (UTA)                               | Salt Lake City, UT | \$338,155          |
| <b>Total</b>   |  |                    | <b>\$1,368,816</b> |

## Public Transportation COVID-19 Research Demonstration Grant Program

**Recipient:** Transit authorities, State and local governments, and State DOTs in partnership with other transit providers (see Table 4-8)

### Project Description:

The COVID-19 Research Demonstration Grant Program develops, deploys, and demonstrates innovative solutions that improve the operational efficiency of transit agencies and enhance the mobility of transit users. The goals of the program are to: 1) develop vehicle, facility, equipment, and infrastructure cleaning and disinfection; 2) identify exposure mitigation measures; 3) document innovative mobility, such as contactless payments; and 4) develop actions that strengthen public confidence in taking transit trips.

### Results:

On January 19, 2021, FTA announced the competitive selection of projects to support strategies aimed at improving the operational efficiency of transit agencies and enhancing rider mobility. In FY 2025, the program developed, deployed, and demonstrated innovative solutions to help transit agencies. For example, New Jersey Transit utilized AI and video analytics to deploy a real-time data analysis, forecasting, and anomaly detection system;

improve crowd management practices; and bolster passenger confidence in public transportation. The use of these technologies improved responses to emergencies, collected data on operational indicators such as passenger flow, real-time performance, and enforcement, and provided information on train and car passenger capacity, including object counts. The program also added a mobile ticketing option with electronic validation for the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG) that provided fixed-route transit services to the urbanized area. The TriCounty Link (TCL), operated transit services in the rural areas of the region enhancing operator, passenger, and community safety by streamlining the boarding process.

**Project/Program Evaluation:**

The program will have an independent evaluation as statutorily required.

**FTA Funding:** \$7,919,864

**Table 4-8** COVID-19 Research Demonstration Grant Projects Receiving Assistance from FTA, FY 2025

| Project Title  | Project Recipient                              | City and State    | FTA Award |
|--|--|-------------------|-----------|
| 5312 National Transit Adaptation Strategy  | San Francisco Municipal Transportation Agency  | San Francisco, CA | \$450,000 |
| Voice-Activated Ticket Vending Machine Project   | Connecticut Department of Transportation       | Hartford, CT      | \$450,000 |
| COVID-19 Research and Demonstration Project  | Washington Metropolitan Area Transit Authority | Washington, D.C.  | \$600,000 |
| R&D Bus Barrier-Testing and Studying of Protective Barriers  | Delaware Transit Corporation                   | Wilmington, DE    | \$450,000 |
| Statewide Contactless Payment System   | Georgia Department of Transportation           | Atlanta, GA       | \$450,000 |
| Automatic Passenger Count (APC) Research Project   | Ames Transit Agency                            | Ames, IA          | \$450,000 |
| Contactless Fare Payment System  | Capital Area Transit System                    | Baton Rouge, LA   | \$300,000 |
| Baltimore County Public Transportation COVID-19 Research Demonstration Discretionary   | Baltimore County                               | Baltimore, MD     | \$12,096  |
| Michigan DOT's COVID-19 Research Demonstration Application for Automated Wheelchair Securement Systems and a Smart Phone App | Michigan Department of Transportation          | Lansing, MI       | \$600,000 |
| KCATA Contactless Fare Validation and Integration Project  | Kansas City Area Transportation Authority      | Kansas City, MO   | \$450,000 |
| Improving Safety and Security via Video Analytics in the Age of COVID-19 and Beyond  | New Jersey Transit Corporation                 | Newark, NJ        | \$600,000 |
| MTA FY 21 Section 5312 Transit's Path Forward in a Pandemic  | New York Metropolitan Transportation Authority | New York, NY      | \$600,000 |

| Project Title   | Project Recipient                                     | City and State     | FTA Award          |
|---|---|--------------------|--------------------|
| Healthy and Reliable Transit  | City of Portland                                      | Portland, OR       | \$439,950          |
| Mass Transit Vehicle Air Ventilation and Purification Technologies Evaluation | Southeastern Pennsylvania Transportation Authority    | Philadelphia, PA   | \$584,618          |
| Regional Contactless Mobile Ticketing and Trip Planning App                   | Berkeley-Charleston-Dorchester Council of Governments | Charleston, SC     | \$575,000          |
| UTA Electronic Voucher (eVoucher) Phase Two Expansion                         | Utah Transit Authority                                | Salt Lake City, UT | \$508,200          |
| The Transit Validation Project  | King County Metro                                     | Seattle, WA        | \$400,000          |
| <b>Total</b>  |   |                    | <b>\$7,919,864</b> |

## MARTA Track Inspection & Asset Management Research and Demonstration

**Recipient:** Metropolitan Atlanta Rapid Transit Authority (MARTA)

### Project Description:

This project demonstrates an autonomous track inspection system (ATIS) that helps FTA disseminate innovative track asset management practices to the transit industry. The project has three main goals: 1) demonstration of ATIS in transit; 2) effectiveness compared to existing transit track management practices (track inspection, data analysis, data management, and maintenance); and 3) return on investment on the MARTA system.

### Results:

In November 2016, FTA entered into a one-time cooperative agreement with MARTA. In FY 2025, all final tests and data collections were completed. The project also developed a training document and provided training to MARTA staff on the operation, safety, and maintenance of the ATIS system. In addition, the project continued to evaluate the data, conducting a final analysis to develop a comprehensive project report for FTA review, which includes an independent evaluation. This project minimized worker exposure to track hazards and enabled predictive maintenance for transit rails.

### Project/Program Evaluation:

The program conducts an independent and continuous evaluation during the project performance period.

**FTA Funding:** \$4,225,000

## FY 2016 Safety Research and Demonstration (SRD)—Infrastructure Program

**Recipient:** Transit authorities partnering with local governments, educational institutions, and private entities (see Table 4-9)

### Project Description:

The FY 2016 SRD Program funds innovative safety technologies and strategies, with a focus on collision avoidance, mitigation, and protection for transit workers. The program goals are to: 1) explore advanced technologies to prevent transit vehicle collisions; 2) enhance the safety of transit services by incorporating safer design elements; and 3) evaluate the cost-effectiveness and practicality of potential solutions.

### Results:

This program concluded in FY 2025. FTA funded seven projects under this program, advancing transportation safety in wayside worker protection and bus and person collision prevention technologies. The program fostered industry-wide collaboration and knowledge sharing. All reports from this program are available on FTA's Reports and Publications webpage.

**FTA Funding:** \$5,101,740

**Table 4-9** FY 2016 SRD—Infrastructure Projects Receiving Assistance from FTA in FY 2025

| Project Title  | Project Recipient  | City and State   | FTA Award          |
|--|--|------------------|--------------------|
| CTA Operations Control Center Safety Enhancements Project                        | Chicago Transit Authority                                | Chicago, IL      | \$1,078,300        |
| Fixed-Location Train Detection and Worker Warning System Demonstration           | Maryland Department of Transportation                    | Baltimore, MD    | \$688,448          |
| Collision Avoidance and Mitigation Technologies on LA Metro Bus Pilot            | Los Angeles County Metropolitan Transportation Authority | Los Angeles, CA  | \$1,450,000        |
| Track Inspector Location Awareness with Enhanced Transit Worker Protection Pilot | Washington Metropolitan Area Transit Authority           | Washington, D.C. | \$1,884,992        |
| <b>Total</b>   |  |                  | <b>\$5,101,740</b> |

## Unmanned Aircraft Systems (UAS) Research Roadmap and Use Cases

**Recipient:** The Volpe Center

### **Project Description:**

This project pursues two concurrent paths to progress the current state of practice with UAS applications for transit asset monitoring and related activities. The goals of the project are to: 1) evaluate two UAS technologies previously created by the SBIR program; and 2) develop a research roadmap for the adoption, best practices, and impact assessment of UAS implementation. Information discovered through these activities will inform future FTA decision-making on UAS applications for transit purposes, including research and deployment opportunities.

### **Results:**

This inter-agency agreement with the Volpe Center was awarded in August 2023. In FY 2025, the project completed the “Data Collection Related to the Structural Integrity and Safety of Transit Tracks” project using drones with integrated LiDAR, optical, and thermal cameras in Chicago Transit Authority tunnels. The project demonstrated the detection of thermal anomalies in subway electrical infrastructure, as well as wet locations and seeps in tunnel walls.

**FTA Funding:** \$500,000

## Section 5

# Demonstration and Deployment

### Description:

FTA funded programs to promote the early deployment and demonstration of innovation in public transportation with broad applicability. FTA funded research and technology development to advance the interests of public transportation and technology.

FTA had three active deployment programs and projects in FY 2025 (see Table 5-1).

**Table 5-1** Deployment Programs and Projects Receiving Assistance from FTA, FY 2025

| Deployment Programs and Projects                                      |                     |
|---|---------------------|
| Project Title   | FTA Funding         |
| Accelerating Advanced Digital Construction Management Systems (ADCMS) | \$5,100,000         |
| Human Services Coordination Research (HSCR) Deployment Program        | \$1,039,130         |
| Public Transportation Vehicle Deployment Program                      | \$12,660,824        |
| <b>Total</b>  | <b>\$18,799,954</b> |

## Accelerating Advanced Digital Construction Management Systems (ADCMS) Program

**Recipient:** University of Cincinnati

### Project Description:

The ADCMS program, authorized under 49 U.S.C. § 5312(b)(4), aims to accelerate the adoption of advanced digital construction management systems in the public transit sector. The program goals are to: 1) improve efficiency, safety, and cost-effectiveness in capital projects; 2) apply interoperable digital systems across the full infrastructure lifecycle from planning through maintenance; and 3) promote timely information sharing and deploy best practices in digital construction management.

### Results:

In November 2024, FTA competitively selected the University of Cincinnati to manage the ADCMS Program. In FY 2025, the recipient worked with FTA to create a working group, completed a comprehensive roadmap, and involved relevant stakeholders to meet the statutory requirements of the program.

**FTA Funding:** \$5,100,000

## Human Service Coordination Research (HSCR) Deployment Program

**Recipient:** Transit authorities, local governments, non-profit organizations, and State DOTs (see Table 5-2)

### Project Description:

The HSCR Deployment Program supports the implementation of innovative strategies to improve human services transportation coordination for older adults and people with mobility issues. The goals are to: 1) integrate new mobility tools such as smartphone apps and demand-responsive bus services; 2) improve multimodal connectivity for older adults and people with mobility issues; 3) address accessibility issues through innovative technologies and practices; 4) improve the quality of the traveler experience and the transit product; and 5) identify new mobility-enhancing practices and technologies.

### Results:

This program concluded in FY 2025. The program identified and tested promising, replicable public transportation access solutions that underscored the importance of inter-agency coordination, access to transportation, and the availability of transportation resources in improving transportation services for older adults and people with mobility issues. Several projects demonstrated that effective collaboration among stakeholders can lead to more integrated and streamlined service delivery.

**FTA Funding:** \$1,039,130

**Table 5-2** Human Service Coordination Research (HSCR) Projects Receiving Assistance from FTA, FY 2025

| Project Title   | Project Recipient                             | City and State | FTA Award          |
|---|---|----------------|--------------------|
| Bridging Medical and Healthy Food Access with Transportation in Cochise County, Arizona | Southeastern Arizona Governments Organization | Bisbee, AZ     | \$235,352          |
| Alternative Senior Transportation Service using TNCs                                    | County of Fulton                              | Atlanta, GA    | \$243,778          |
| Enhancing Technology Resources for Increased Mobility Options                           | Maryland Transit Administration               | Baltimore, MD  | \$240,000          |
| Rides Toward Work   | Rhode Island Public Transit Authority         | Providence, RI | \$150,000          |
| Recovery Rides—Access to Employment   | Vermont Agency of Transportation              | Montpelier, VT | \$170,000          |
| <b>Total</b>  |   |                | <b>\$1,039,130</b> |

## Public Transportation Vehicle Deployment Program

**Recipient:** Transit authorities and project teams comprising transit agencies, systems experts, and bus manufacturers (see Table 5-3)

### Project Description:

The program began in FY 2013 as a program funded under Federal public transportation law (49 U.S.C. § 5312) and is now bridging FTA's research and capital programs. The goals of the program are to: 1) lower the cost and increase the availability of more energy-efficient buses; 2) increase private investment in transit bus development and create new jobs in U.S. transit bus manufacturing; and 3) expand knowledge regarding the strengths and weaknesses of new bus technologies, and how best to deploy these buses. The program identified the risks associated with early deployments of new bus technology and helped inform the industry about the capabilities and challenges of these new technologies. The program was funded as a research program under Federal public transportation law (49 U.S.C. § 5312). In FY 2016, the FAST Act authorized a successor discretionary capital program under Federal public transportation law (49 U.S.C. § 5339), and funding increased to \$55 million annually.

### Results:

In FY 2025, three demonstration projects remained active. The projects were intended for public transportation use and propulsion technologies compared to similar standards or other vehicles. The program helped deploy technologically advanced vehicles nationwide, providing a better riding experience for passengers.

### Project/Program Evaluation:

Through an inter-agency agreement with the National Renewable Energy Laboratory (NREL), part of the U.S. Department of Energy, FTA funded the technology evaluations of all project sites. The evaluations measured the performance of bus technology on regularly scheduled routes over a year, addressing fuel economy, fuel costs, bus availability, maintenance costs, and breakdown frequency.

**FTA Funding:** \$12,660,824

**Table 5-3** Public Transportation Vehicle Deployment Program Projects Receiving Assistance from FTA, FY 2025

| Project Title                              | Project Recipient  | City and State | FTA Award           |
|--|--|----------------|---------------------|
| Five Transit Authority of River City Buses | Transit Authority of River City  | Louisville, KY | \$3,321,250         |
| Five Transit Authority of Lexington Buses  | Transit Authority of Lexington Fayette Urban County Government (Lextran) | Lexington, KY  | \$6,003,534         |
| Eight King County Buses                    | King County Metro  | Seattle, WA    | \$3,336,040         |
| <b>Total</b>                               |  |                | <b>\$12,660,824</b> |

## Section 6

# Evaluation and Implementation

### Description:

FTA funded projects to meet the requirements under Federal public transportation law (49 U.S.C. § 5312(e)(4)), which required FTA to evaluate projects receiving its funding. Evaluation and implementation of programs and projects measured the success or failure of FTA research activities and provided plans for broad-based implementation of innovations promoted by successful projects.

FTA had five Evaluation and Implementation projects and programs active in FY 2025 (see Table 6-1).

**Table 6-1** Evaluation Programs and Projects Receiving Assistance from FTA, FY 2025

| Evaluation Programs and Projects  |                    |
|---|--------------------|
| Project Title   | FTA Funding        |
| Real-Time Transit Infrastructure and Rolling Stock Condition Assessment Research and Demonstration Program Evaluation | \$750,000          |
| FY 2020 Safety Research and Demonstration (SRD)—Safety Program Evaluation   | \$700,000          |
| FY 2016 Safety Research and Demonstration (SRD)—Infrastructure Program Evaluation                                     | \$750,000          |
| Mobility Innovation Demonstration Programs Evaluation   | \$3,050,000        |
| Innovative Technology and Mobility Solutions Project Evaluation   | \$300,000          |
| <b>Total</b>  | <b>\$5,550,000</b> |

## Real-Time Transit Infrastructure and Rolling Stock Condition Assessment Research and Demonstration Program Evaluation

**Recipient:** The Volpe Center

### Project Description:

This project supports and independently evaluates FTA’s Real-Time Transit Infrastructure and Rolling Stock Condition Assessment Research and Demonstration Program and meets the statutory requirement of independent research demonstration evaluation under Federal public transportation law (49 U.S.C. § 5312(e)(4)). Each project-level evaluation has a set of performance measures. The project assesses the contribution of each project toward

advancing the program goals of exploring advanced technologies, designs, or practices.

**Results:**

In FY 2025, Volpe reviewed performance measurement metrics submitted by each recipient to assess system operation and effectiveness, and returns on investment and outreach/knowledge sharing achieved through its real-time asset condition measurement systems. Volpe prepared an interim evaluation report content for five projects that have begun demonstrations. In addition, the Volpe Center conducted post-deployment interviews and gathered feedback on performance measurement activities and lessons learned.

**FTA Funding:** \$750,000

## **FY2020 Safety Research and Demonstration (SRD)—Safety Program Evaluation**

**Recipient:** University of South Florida (USF) Center for Urban Transportation Research (CUTR)

**Project Description:**

This project supports FTA's FY 2020 SRD Program and meets the statutory requirement of independent research demonstration evaluation under Federal public transportation law (§ 5312(e)(4)). The goals of this project are to: 1) evaluate the FY 2020 SRD projects; 2) assess the contribution of each project toward advancing FTA's SRD program goals of exploring advanced technologies, designs, or practices to mitigate and prevent safety hazards on rail transit systems while evaluating the cost-effectiveness and practicability of potential solutions; and 3) estimate the national impact of FY 2020 SRD projects.

**Results:**

In FY 2025, FTA collaborated with recipients and project managers to collect lessons learned, analyze project data, and support knowledge transfer activities. FTA received an interim evaluation report for review.

**FTA Funding:** \$700,000

## FY 2016 Safety Research and Demonstration (SRD)—Infrastructure Program Evaluation

**Recipient:** University of South Florida (USF) Center for Urban Transportation Research (CUTR)

### Project Description:

This project supports FTA's FY 2016 SRD Program and meets the statutory requirement of independent research demonstration evaluation under Federal public transportation law (§ 5312(e)(4)). The goals of this project are to: 1) evaluate the FY 2016 SRD projects; 2) assess the contribution of each project toward advancing FTA's FY 2016 SRD Program goals of improved collision avoidance and increased worker safety; and 3) estimate the national-level impact of FY 2016 SRD projects.

### Results:

This program concluded in FY 2025. Each project-level evaluation had set of performance measures established by FY 2016 SRD award recipients in coordination with the SRD evaluation team. FTA collaborated with recipients and project managers to collect lessons learned, analyze data generated by the projects, facilitate knowledge transfer activities, and conduct project close-out interviews. The independent evaluators submitted the final evaluation report for review.

**FTA Funding:** \$750,000

## Mobility Innovation Demonstration Programs Evaluation

**Recipient:** ICF International

### Project Description:

This project supports FTA's IMI and AIM programs and meets the statutory requirement of independent research demonstration evaluation under Federal public transportation law (§ 5312(e)(4)). The assessment focuses on projects that aim to lead the development and deployment of innovative practices and technologies that encourage travelers to choose public transportation, enhance personal mobility, and improve the traveler's experience. The project goals are to: 1) evaluate the IMI and AIM projects; 2) document the success and impact of individual projects and the potential implications nationally; and 3) develop

a synthesis report of the IMI and AIM programs, including findings, lessons learned, and recommendations for research and policy actions.

**Results:**

In FY 2025, the project was completed and 11 evaluation site summaries documenting the research findings and lessons learned of projects across multiple topical research areas were submitted. Topics included micro transit, transit bus automation, trip planning, fare payment, and data and software.

**FTA Funding:** \$3,050,000

## Innovative Technology and Mobility Solutions Project Evaluation

**Recipient:** Michigan Department of Transportation (MDOT)

**Project Description:**

The project is responsible for evaluating 13 initiatives funded by the Michigan Mobility Challenge (MMC). The MMC funds projects to bring together public transportation providers and technology providers to propose solutions for mobility gaps for seniors, persons with mobility issues, and/or veterans within a defined geographic area in Michigan. The goals of the project are to: 1) evaluate MMC projects; 2) document the success and impact of individual projects and the potential impact nationally; and 3) develop a synthesis report of the MMC that includes findings, lessons learned, and recommendations to support future State and national innovation technology and mobility funding programs.

**Results:**

In FY 2025, the project completed four internal evaluations and submitted a final report to FTA for review. The evaluation identified key issues, including insufficient due diligence on partner qualifications and technical feasibility, execution challenges (including partner tensions, staff turnover, and poor knowledge transfer), and weak post-funding plans. It also offered recommendations for addressing similar future challenges, including requiring proof of technical feasibility, establishing contingency plans, and defining data ownership and access in agreements.

**FTA Funding:** \$300,000

## Section 7

# Strategic Research Roadmap

### Description:

Federal public transportation law (§ 5312(f)(1)(C)) requires FTA to provide a strategic research roadmap proposal for allocations for the current and subsequent fiscal years, including anticipated work areas, proposed demonstrations, and strategic partnership opportunities (see table below).

FTA drafts an Annual Modal Research Plan (AMRP) highlighting future research activities. The AMRP covers two fiscal years, with a program budget for the first year and proposed allocations.

See FTA's planned research allocations for FY 2025 and proposed allocations for FY 2026 below.

**Table 7-1** Research Allocations for FY 2025 and Proposed Allocations for FY 2026

| Public Transportation Innovation  | FY 2025 Enacted     | FY 2026 President's Budget |
|---|---------------------|----------------------------|
| <b>Transit Formula Grants</b>   |                     |                            |
| Mobility NeXt   | \$7,000,000         | \$7,000,365                |
| Advanced Digital Construction Management                                  | \$2,145,000         | \$1,555,000                |
| Component Testing 5312(h)   | \$5,345,938         | \$5,481,842                |
| Small Business Innovation Research Program (SBIR)                         | \$864,306           | \$886,270                  |
| Transit Cooperative Research Program (TCRP) 5312(i)                       | \$7,033,749         | \$7,212,560                |
| Research to Practice and Dissemination Program (Tech Transfer)            |                     | \$2,000,000                |
| Transit Enhanced Living Program   | \$5,000,000         |                            |
| Mobility for Opportunity, Vitality, and Economic Success (MOVES)          |                     | \$3,127,300                |
| Safe Infrastructure and People  | \$5,000,000         | \$5,127,000                |
| Transit Defined Systems   | \$7,000,000         | \$6,000,000                |
| Research Evaluation (formerly Research Evaluation and Fast Track Systems) |                     | \$2,000,000                |
| <b>Subtotal</b>   | <b>\$39,388,993</b> | <b>\$40,390,337</b>        |
| <b>Transit Infrastructure Grants</b>                                      |                     |                            |
| Research, Development, Demonstration, and Deployment Projects             | \$3,454,664         |                            |
| Small Business Innovation Research Program (SBIR)                         | \$114,204           |                            |
| <b>Subtotal</b>   | <b>\$3,568,868</b>  |                            |
| <b>Total</b>  |                     | <b>\$40,390,337</b>        |

## Anticipated Work Areas/Programs

In FY 2026, FTA will launch a new program called Mobility for Opportunity, Vitality and Economic Success (MOVES). The program will support Americans and their communities to have secure, dependable, practical, and safe transportation options. FTA will also launch the Safe Infrastructure and People (SIP) Program primarily to support DOT's strategic goal of safety, and to document lessons learned, produce guidance documents, and create tools to ensure the safety of all, including riders, operators, and transit users. Demonstration Program and meets the statutory requirement of independent research demonstration evaluation under Federal public transportation law (49 U.S.C. § 5312(e)(4)). Each project-level evaluation has a set of performance measures. The project assesses the contribution of each project toward advancing the program goals of exploring advanced technologies, designs, or practices.

## Collaboration Efforts

Broad stakeholder collaboration is a foundational component of FTA's innovative research. Key stakeholder groups fall into six major categories: transit agencies; academic/consulting partners; other DOT offices/modes; national nonprofits, including national transit associations; private-sector partners; and other Federal agencies. Partners are either recipients of research funding or organizations that closely partner with FTA to share information and provide feedback on industry trends, issues, and needs.

Transit agencies play a significant role in planning, implementing, and assessing potential innovations. FTA's transit agency research recipients span FTA's 10 regions, enabling the development of promising transit solutions in myriad environments. Academic institutions, industry associations, and consulting partners are also recipients of FTA funding.

FTA continues collaboration with internal DOT modal administration partners. The internal partners include the [Intelligent Transportation Systems \(ITS\) Joint Program Office \(JPO\)](#), [Office of the Assistant Secretary for Research and Technology \(OST-R\)](#), [Office of the Assistant Secretary for Aviation and International Affairs \(OST-X\)](#), the [Volpe National Transportation Systems Center](#), the [Federal Highway Administration \(FHWA\)](#), the [Pipelines and Hazardous Materials Administration \(PHMSA\)](#), the [National Highway Traffic Safety Administration \(NHTSA\)](#), the [Federal Railroad Administration \(FRA\)](#), and the [Bureau of Transportation Statistics](#). The [National Highway Traffic Safety Administration \(NHTSA\)](#) is a key partner in transit automation.



## Acronyms and Abbreviations

|              |   |
|--------------|---|
| <b>ADAS</b>  | Advanced Driver Assistance Systems  |
| <b>ADCMS</b> | Accelerating Advanced Digital Construction Management                       |
| <b>AIM</b>   | Accelerating Innovative Mobility  |
| <b>CTE</b>   | Center for Transportation and the Environment                               |
| <b>CUTR</b>  | Center for Urban Transportation Research at the University of South Florida |
| <b>DOT</b>   | Department of Transportation  |
| <b>EMI</b>   | Enhancing Mobility Innovation   |
| <b>FAST</b>  | Fixing America's Surface Transportation Act (Public Law 114-94)             |
| <b>FHWA</b>  | Federal Highway Administration  |
| <b>FTA</b>   | Federal Transit Administration  |
| <b>FY</b>    | Fiscal Year   |
| <b>HSCR</b>  | Human Services Coordination Research  |
| <b>HST</b>   | Human Service Transportation  |
| <b>IMI</b>   | Integrated Mobility Innovation  |
| <b>MATI</b>  | Mobility, Accessibility, and Transportation Insecurity                      |
| <b>NAS</b>   | National Academy of Sciences  |
| <b>NFCBP</b> | National Fuel Cell Bus Program  |
| <b>NREL</b>  | National Renewable Energy Laboratory  |
| <b>PSATE</b> | Public Safety Awareness Technology Evaluation                               |
| <b>SBIR</b>  | Small Business Innovation Research  |
| <b>SRD</b>   | Safety Research and Demonstration   |
| <b>SRM</b>   | Safety Risk Management  |
| <b>TCRP</b>  | Transportation Cooperative Research Program                                 |
| <b>TRB</b>   | Transportation Research Board   |
| <b>TVIDC</b> | Transit Vehicle Innovation Deployment Centers                               |



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