Third Quarter 2023 Edition

eNEWSLETTER

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The Rural Transit Assistance Program (RTAP) was initiated in 1986 by the Federal Transit Administration (FTA) to provide resources, training and technical assistance to rural transit providers. The Missouri RTAP Center is located at Missouri University of Science and Technology (Missouri S&T) in Rolla. Since April 2012, Missouri S&T has been contracted by MoDOT to manage the RTAP program.

National RTAP Rural Transit Assistance Program

National RTAP is a program of the Federal Transit Administration dedicated to creating rural transit solutions through technical assistance, partner collaboration and FREE training.

LETTER FROM THE MANAGER

Dr. Heath Pickerill
Missouri RTAP Manager

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DEAR TRANSIT FRIENDS,

It was great to see many of you in Kansas City at the Midwest Transit Conference. Pat and I appreciated the opportunity to update you on RTAP activities during the Missouri rural transit session. I mentioned our data repository project that will be part of our new Missouri Local Training & Resource Center learning management system (LMS) with an integrated database. This new system will house data for Missouri transit agencies in a variety of categories, including vehicles, passengers, funding and finance, as well as agency information. Reporting on vehicles will track years in service, condition, mileage, and other state of good repair (SCR) analysis data while passenger statistics will focus on yearly volumes, origin and destination of trips, pick up and drop off times, the purpose, and even payment methods. The development of a data repository was highlighted in MPTA's Transit Needs Assessment Study last year conducted by the Lochmueller Group. We are excited to lead the effort in the development.

Our team at Missouri S&T continues to grow as we expand the Missouri Local Training & Resource Center (MLTRC), home of our State's RTAP and Missouri's Local Technical Assistance Program (LTAP) and now the Missouri Community Resilience Program currently being developed under a grant through the Ewing Marion Kauffman Foundation. I'm excited to introduce the newest member of our team, Ms. Tina Monson. Tina will serve as an Education Program Coordinator, a part-time position focused on expanding training services to cities, counties, and rural transit providers throughout the State. For now, her efforts will focus on the development of an online course catalog, which will greatly expand available classes in leadership and professional development. In addition, she will assist in organizing outreach efforts to promote resiliency planning and entrepreneurship to a variety of demographics. Monson holds a bachelor's degree in general studies with an emphasis in business from Gulf Coast University in Southwest Florida. She served 6 years in the Missouri Army National Guard with the 1438th Engineers Company Attachment in Rolla. Monson holds Military Occupational Specialties as an Administrative Specialist and a Ribbon Bridge Builder.

I want to remind everyone of the National RTAP Conference being held December 3-6 in Myrtle Beach, SC. Note that early registration closes on October 3rd! Please register before that date. Send all Scholarship Reimbursement requests to Pat for review and approval. You can reach Pat at (573) 341-6155 or email diakup@mst.edu. Please reach out to me with other questions at (573) 341-7637 or pickerillh@mst.edu.

Best wishes,

Heath Pickerill ,
Missouri RTAP Manager

Photo by: Sam O'Keefe

MU RESEARCHERS STUDY BARRIERS AND FACILITATORS TO ACCESSING HEALTH CARE IN RURAL MISSOURI

Findings highlight new care coordination services that health care organizations are providing in rural areas, such as transportation, mental health, food and housing to better address Missourians' health.

Rural Missourians often face more disparities in health outcomes than their urban and suburban counterparts, in part from challenges accessing health care — a problem amplified in recent years by a growing physician shortage. But a new study at the University of Missouri found that health and health care organizations are increasingly offering basic social services, such as transportation, housing, food, and mental health support, as they recognize these services contribute to a person's overall health.

In the study, MU researchers interviewed various health care organizations serving rural Missouri about their care coordination; organizations included behavioral health, federally qualified health centers and hospitals. Researchers sought to better understand the challenges that rural Missourians face in accessing health care, as well as the innovative solutions care coordinators and social services implemented to help overcome them.

The findings shed light on new roles health care organizations must play to improve health outcomes of rural Americans by providing basic services.

"Transportation was the most commonly reported barrier addressed, particularly in rural areas where you have to travel farther distances, especially if you need specialized care, and the physician shortages in rural areas have made this barrier even worse," said Julie Kapp, an associate professor in the MU College of Health Sciences and lead author on the study.

"Some families might just have one car that everyone shares, the car might not be reliable, or if families are working long hours while juggling household responsibilities, missing work to drive long distances might not be possible."

Additionally, Kapp said Uber and Lyft do not operate in some rural areas, where residents often don't have access to bus, train or subway systems.

The research team found that 100% of the organizations interviewed provided assistance with transportation, while 86% provided support or referrals for mental health care, 79% provided food assistance, 71% provided housing assistance, and 50% provided dental assistance.

Researchers also explored how these organizations were implementing the 10 essential characteristics of care coordination that were recommended five years ago by the Journal of American Medical Association. These recommendations emphasize patient-centered, team-based processes that incorporate comprehensive assessments of patients' health and psychosocial needs. The most implemented recommendation amongst the interviewed organizations was proactively planning for transitions of care, while the least implemented recommendation was using an electronic health information system that facilitates communication. Collecting this information helps researchers identify both success stories that other organizations can learn from as well as areas for improvement.

"One of the main takeaways of this research is that health care is much more broad today than before, and it incorporates basic social services that are often not thought of as health care related," said Beau Underwood, a doctoral student in the MU College of Arts and Science's Truman School of Government and Public Affairs who collaborated with Kapp on the study.

"We need to think beyond just what happens in the doctor's office, and part of that is thinking about if patients have transportation to get to the doctor's office in the first place, or if there is even a physician in the patient's area."

Kapp said food insecurity or lack of broadband internet can also serve as barriers in rural areas, particularly for lower-income families.

"Doctors often recommend prescription medications be taken on a full stomach, but for someone struggling with food insecurity, that might not always be an option," Kapp said. "Telehealth is often marketed as a possible solution in rural areas, and it can definitely be a convenient option, but lack of broadband internet access can be a challenge, although MU and the UM System have made great strides to help in this area."

While the COVID-19 pandemic intensified some of the barriers for rural Missourians accessing health care, the research team identified innovative solutions that could potentially be expanded in the future.

"One organization we interviewed talked about partnering with a local food bank and dropping off the food at the patients' door with contactless delivery," Kapp said. "Another created their own transportation system when the one in their area shut down during the beginning of the pandemic. There was also an organization that would proactively call patients in between appointments and ask how they were doing or if they needed anything, which decreased the likelihood of missed appointments."

"Practice perspectives on care coordination in rural settings" was recently published in Professional Case Management. Coauthors include Beau Underwood, Kristi Ressel and Kathleen Quinn.

A $5 million Health Resources and Services Administration grant awarded to Quinn, an associate teaching professor in the MU School of Medicine and an associate dean for MU Extension, funded the study.

August 28, 2023
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showme.missouri.edu/2023/mu-researchers-study-barriers-and-facilitators-to-accessing-health-care-in-rural-missouri/

Biden-Harris Administration Announces More Than $11 Million in Grants to Support Automated Technology Research That Improves Bus Safety

WASHINGTON – The U.S. Department of Transportation's Federal Transit Administration (FTA) today announced $11.6 million to support six transit bus automation research projects that will improve safety, efficiency, and accessibility on the road and in bus maintenance yards.

Examples of projects include strategies for avoiding collisions with pedestrians, improved emergency braking, and precision movement for bus fueling, charging, and maintenance.

"Advancements in technology can go a long way toward creating a safer and more efficient transit system," said FTA Administrator Nuria Fernandez. "The innovative research projects we are funding represent an important step toward integrating state-of-the-art automation technology into real-world settings, helping transit agencies protect their operators and riders as well as vulnerable road users."

As part of the programs, recipients will demonstrate technologies that reduce bus collisions, improve facility operations, and improve the accessibility and efficiency of service.

Many of the projects include workforce analysis and training activities to address how automation may impact existing jobs and help operators and maintenance workers develop new skills.

Among the selected automation projects:

- CapMetro in Austin, Texas, will receive nearly $950,000 to integrate vehicle automation in an advanced yard management system and run heavy-duty vehicle demonstrations at its operations facility. The project includes a bus automation workforce analysis to address how bus yard automation may impact existing roles and create demand for new positions.
- Connecticut Department of Transportation will receive $2 million to expand an FTA-sponsored transit automation program along the CTfastrak bus rapid transit corridor. The project will incorporate collision avoidance, precision docking assist, and more to enhance safety and accessibility throughout the CTfastrak local bus network.
- University of Alabama will receive $2 million to test automation technologies for large transit buses using a lab simulation environment and real-world tests to demonstrate the cost-effectiveness and equity impacts of the technology.
- Pinellas Suncoast Transit Authority will receive nearly $893,000 to test retrofitting a bus to operate autonomously. This will allow for routing bus yard tasks to be done more efficiently, such as automated parking and recall.
- Virginia Polytechnic Institute and State University will receive more than $4.5 million to publicly demonstrate and collect data on a forward automatic braking, pedestrian collision avoidance, and more to enhance safety for buses.
- Colorado Department of Transportation will receive more than $1.2 million to demonstrate ADAS technology in three retrofitted buses that serve critical rural transit routes.

As described in the agency's Strategic Transit Automation Research (STAR) Plan, FTA continues to explore the use of automation technologies in bus systems to improve safety, increase efficiency, and enhance the customer experience. Safety is the top priority for the U.S. Department of Transportation, which has adopted a holistic Safe Systems Approach as the guiding paradigm of the National Roadway Safety Strategy which was launched last year. The strategy aims to ultimately get to zero deaths on America's roads. These investments help advance the FTA's STAR plan and improve safety.

transit.dot.gov/about/news/biden-harris-administration-announces-more-11-million-grants-support-automated

USING CAMERAS ON TRANSIT BUSES TO MONITOR TRAFFIC CONDITIONS

Study taps into AI to improve future road planning

Researchers have proposed a novel method for counting and tracking vehicles on public roads, a development that could enhance current traffic systems and help travelers get to their destinations faster.

Using the cameras already installed on campus buses at The Ohio State University, researchers demonstrated that they could automatically and accurately measure counts of vehicles on urban roadways, could detect objects in the road, and could distinguish parked vehicles from those that are moving.

In previous studies, Ohio State researchers found that using these mobile cameras provides much better spatial and temporal coverage than relying on sparsely and often temporarily placed sensors that don't provide a view of many streets and roads in a city.

"If we collect and process more comprehensive high-resolution spatial information about what's happening on the roads, then planners could better understand changes in demand, effectively improving efficiency in the broader transportation system," said Keith Redmill, lead author of the study and a research associate professor of electrical and computer engineering at Ohio State.

Whereas researchers previously used human observers to manually identify the vehicles in the videos, this study, published in the journal Sensors, automates the process using AI.

According to co-authors of the study Mark McCord and Rabi Mishalani, both professors of civil, environmental and geodetic engineering at Ohio State, their team chose to utilize the traffic cameras on the Campus Area Bus Service partly because Ohio State's large, interconnected campus resembles a small city and their relationship with CABS operators gave them ready access to the collected videos.

"Sharing access to our bus cameras for traffic monitoring is a great example of how university operations can support research and learning," said Tom Holman, Ohio State's

director of Transportation and Traffic Management. "We are happy to share existing resources that can generate helpful data for long-term traffic planning purposes on campus and beyond."

But what sets this study apart from similar traffic-related studies is that it utilizes available resources at no extra cost: bus cameras that have already been installed for other safety and security purposes. This allows it to be easily integrated into how other cities manage their traffic monitoring, said Mishalani.

"If we can measure traffic in a way that is as good or better than what is conventionally done with fixed sensors, then we will have created something incredibly useful extremely cheaply," he said. "Our goal is to start building a system that could do this without much manual intervention because if you want to collect this information over lots of potential vehicles and lots of time, it's worth fully automating that process."

The system works by utilizing a state-of-the-art 2D deep learning model called YOLOv4 to automatically detect and track objects. The program is also uniquely adept at recognizing multiple objects in a single image frame, said Redmill.

While still a long way from total implementation, the study suggests the system's results bear promise for the future of intelligent traffic surveillance. For example, besides counting vehicles, their algorithm is also able to project real-world bird's-eye-view coordinates of the road network by taking advantage of streams of images, GNSS measurements, and regional information from 2D maps. It's so precise, the system was also able to detect if the bus veered off from its planned route – and then report it to a map database that logs detailed information about the roadways, said Redmill, who is also a member of Ohio State's Control and Intelligent Transportations Research Lab (CITR).

With widespread deployment and integration of their proposed approach, the vast collection and complete automation of processing of this data over time would allow for more effective planning, designing and operation of roadways to mitigate heavy traffic across the country. As for the benefits the public might see, such advancements in traffic surveillance could mean reduced travel times and greater travel choices when trying to get from point A to point B.

"Transportation planners, engineers and operators make vital decisions about the future of our roadways, so when designing transportation systems to work over the next 30 to 50 years, it's imperative that we give them data that allows them to improve the efficiency of the system and the level of service provided to travelers," said Mishalani.

The research was supported by the United States Department of Transportation's Mobility21 University Transportation Center program. Other co-authors are Ekim Yurtsever and Benjamin Coifman, both of Ohio State.

news.osu.edu/using-cameras-on-transit-buses-to-monitor-traffic-conditions/

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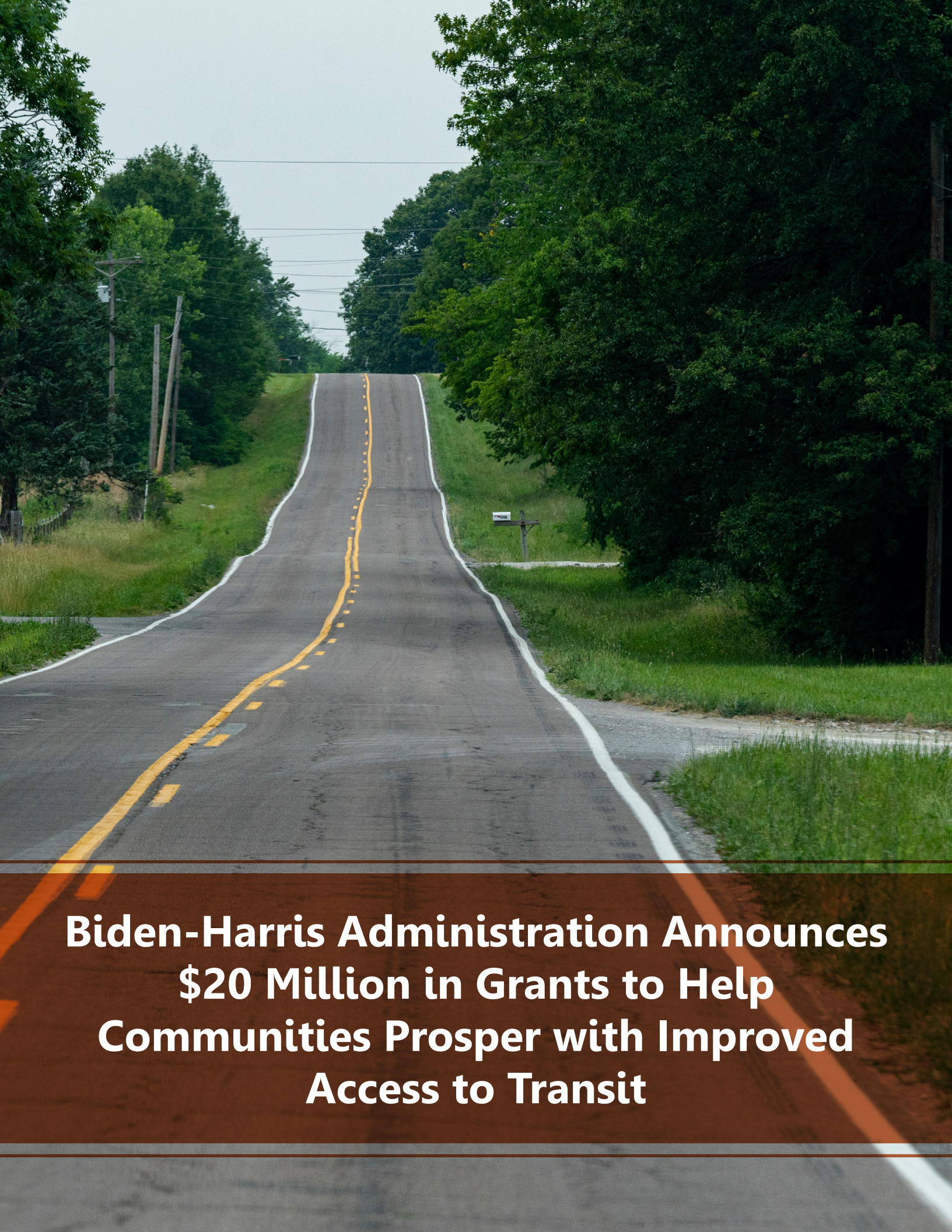

Biden-Harris Administration Announces $20 Million in Grants to Help Communities Prosper with Improved Access to Transit

WASHINGTON – The U.S. Department of Transportation's Federal Transit Administration (FTA) today announced that it will award $20 million to 47 communities to help improve public transportation options in areas experiencing long-term economic distress, one of the many ways the Biden-Harris Administration is investing in America by creating jobs and opportunity through infrastructure investment.

FTA's Areas of Persistent Poverty (AoPP) program provides support to state and local governments, transit agencies, and nonprofit organizations to create better transit for residents with limited or no transportation options.

"Across the country, people who live in low-income rural, urban, and Tribal communities are less likely to own a car and more likely to rely on public transit," said U.S. Transportation Secretary Pete Buttigieg. "Through this program, we are bringing affordable, accessible public transit to the very communities that need it the most, making it possible for more people to access jobs, resources, and opportunity."

Investments from the Areas of Persistent Poverty program can be used to support efforts to initiate transit service as well as improve service and modernize fleets, from procuring low- and no-emission buses, to launching scheduling apps and improving bus stops. They also deliver on our commitments to invest in projects that provide benefits to communities with environmental justice concerns.

"Transit is the great equalizer, providing rides for those who do not have a car or cannot drive, and particularly in rural and Tribal areas, having access to an affordable, reliable bus ride can mean the difference between isolation and opportunity," said FTA Administrator Nuria Fernandez. "FTA's Areas of Persistent Poverty Program is about forging connections for people who need accessible transit the most."

The grants are specifically awarded for studies to improve transit in Census-defined low-income areas.

The program also supports coordinated human service transportation planning to improve mobility and access or provide new services, including paratransit.

Some of the selected projects include:

The Greater Bridgeport Transit Authority in Connecticut will receive $450,000 to conduct a planning analysis targeting underserved communities. It will develop policy and planning processes that link equity with transit investment; a fleet, facility, and deployment plan to transition the bus fleet to zero-emission propulsion systems; and an educational program for residents and business owners to better inform them about transit and mobility options.

The Chicago Transit Authority (CTA) will receive $778,500 to assess whether to reopen the historic Englewood (Green) Line Racine station with modern accessibility standards. The station, which closed nearly 30 years ago, is recognized as a key investment to revitalize the neighborhood. By engaging with residents and other advocates, CTA hopes to maximize the impact of increased transit access and the positive effect it can have on the community.

In Mississippi, the Jackson Medical Mall Foundation will receive $612,684 to develop a framework to expand transportation options with a community-based transportation model allowing residents to search, book, and ride on available transit assets. The proposed plan looks to improve public transportation by improving efficiency and ensuring their system meets the needs of individuals who lack access to jobs, schools, healthcare, and public services in Central Mississippi and throughout the state.

The Cherokee Nation, located in Northeastern Oklahoma, will receive $576,188 to update its long-range transit plan to guide the planning, construction, and deployment of future tribal transit projects. The review will include an electric vehicle infrastructure assessment to plan for expansion and a technology assessment designed to increase user access for its 450,000 tribal citizens.

FTA received applications totaling close to $36 million in funding requests. Projects were selected based on criteria described in the Notice of Funding Opportunity.

transit.dot.gov/about/news/biden-harris-administration-announces-20-million-grants-help-communities-prosper

5th NATIONAL RTAP CONFERENCE

Navigating the Tides of Change with Rural & Tribal Transit

December 3-6, 2023

Marriott Myrtle Beach Resort & Spa at Grande Dunes
8400 Costa Verde Drive
Myrtle Beach, SC 29572

Register today!

https://www.nationalrtap.org/News/Conference/2023-Myrtle-Beach

AVAILABLE TRAINING PROGRAMS

The following is a list of the training programs and course length of each that are currently available to rural transit providers through Missouri RTAP. Requests for training can be made by contacting Pat Diaku, MO-RTAP Program Specialist, at diakup@mst.edu or 573-341-6155.

1. **ACTIVE SHOOTER PREVENTION AND RESPONSE — 2 HOURS.**
2. **AGGRESSIVE DRIVING —1 HOUR.**
3. **ASSAULT AWARENESS AND PREVENTION FOR TRANSIT OPERATORS — 1.5 HOURS**
4. **BACKING SAFETY — 1 HOUR.**
5. **BASIC FIRST AID — 1 HOUR.**
6. **BLOOD BORNE PATHOGENS — 1 HOUR.**
7. **CPR & BASIC FIRST AID — 4 HOURS.**
8. **DEALING WITH DIFFICULT PASSENGERS — 2 HOURS.**
9. **DEFENSIVE DRIVING — 3 HOURS.**
10. **DISTRACTIVE DRIVING — 1 HOUR.**
11. **DIVERSITY & AWARENESS TRAINING - PROVIDING QUALITY CUSTOMER SERVICE FOR TRANSPORTATION PASSENGERS WHO HAVE DISABILITIES — 2 HOURS.**
12. **DRIVEN TO EXTREMES — 1 HOUR.**
13. **DRUG & ALCOHOL AWARENESS — 1 HOUR.**
14. **EMERGENCY & EVACUATION PROCEDURES — 1 1/2 TO 2 HOURS.**
15. **FATIGUE AWARENESS FOR DRIVERS — 2 HOURS.**
16. **HIPAA — 1 HOUR.**
17. **NIGHT DRIVING — 1 HOUR.**
18. **OPERATION LIFESAVER – HIGHWAY-RAIL CROSSING SAFETY — 1 HOUR.**
19. **PASSENGER ASSISTANCE/MOBILITY AID SECUREMENT — 2 HOURS.**
20. **REASONABLE SUSPICION TRAINING FOR SUPERVISORS — 2 HOURS.**
21. **SAFE & SECURE PROPER INFANT AND CHILD SEAT INSTALLATION — 2 HOURS.**
22. **SENSITIVITY AWARENESS — 1 HOUR.**
23. **SEXUAL HARRASSMENT — 1 HOUR.**
24. **SLIPS, TRIPS AND FALLS — 1 HOUR.**
25. **VIOLENCE IN THE TRANSIT WORKFORCE – PREVENTION, RESPONSE AND RECOVERY — 1.5 HOURS**
26. **WHEELCHAIR SECUREMENT — 2 TO 3 HOURS DEPENDING ON NUMBER OF PARTICIPANTS.**
27. **WINTER DRIVING SAFETY — 1 HOUR.**

For more information on classes and to register please visit: mltrc.mst.edu/mortaphome/mortaptraining/

RESOURCES

National RTAP – Rural Transit Assistance Program
www.nationalrtap.org/

Transportation Safety Institute – Transit Safety & Security Training Division
www.tsi.dot.gov/Transit.aspx

Federal Transit Administration – Rural Transit Assistance Program Page
www.fta.dot.gov/funding/grants/grants_financing_3554.html

Missouri Public Transit
www.mopublictransit.org/

National Transit Institute
www.ntionline.com/

Kansas RTAP – Kansas University Transportation Center
www.kutc.ku.edu/cgiwrap/kutc/rtap/index.php/index.html

Transportation Research Board's (TRB) Transit Cooperative Research Program (TCRP)
www.tcrponline.org/