

NATIONAL
ACADEMIES

Sciences
Engineering
Medicine



TRANSPORTATION RESEARCH BOARD

Workshop to Broaden the Diversity of the Skilled, Technical Transportation Workforce



Federal Transit
Administration



SEPTEMBER 18, 2024

NATIONAL
ACADEMIES

*Sciences
Engineering
Medicine*



TRANSPORTATION RESEARCH BOARD

Panel 4: Resources and Funding



Federal Transit
Administration





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TRANSPORTATION RESEARCH BOARD

Valerie Lefler
Executive Director and Founder
Feonix - Mobility Rising



Transportation Access for Equitable Student & Employment Outcomes

Valerie Lefler

Executive Director & Founder

NASEM Workforce Workshop, September 18, 2024



OUR MISSION

Mobility solutions for the *health and wellbeing*
of every person in every community.

Transportation to Support Health Equity



**Economic
Stability**



**Neighborhood
& Physical
Environment**



Education



**Healthy
Food**



**Community
& Social
Support**



Healthcare

THE PROBLEM



The fragmented labyrinth of resources, policies, and programs for transportation is **not working for those who rely on it the most.**



Mobility for Student Success

Cing

Fox Valley Technical College Student located in Appleton, Wisconsin

Refugee from Vietnam

Selecting Courses Based on Bus Schedule

Walking 3 ½ Miles Home (regardless of weather) at Midnight Along Highway from Employment Needed to Support Family Income





Mobility Needed for Student Success

Transportation to Access:

- **Access Courses Best for Student Academic Achievement, Course Path, and Interests**
- **Participate in Group Projects & Study Groups**
- **Internships / Job Training / Employment Opportunities**
 - **Resources to Participate in OJT**
 - **Childcare**
- **Grocery Store – Culturally Appropriate / Affordable**
- **Access Healthcare Services (Physical & Mental Health)**

Transportation to Support Health Equity



**Economic
Stability**



**Neighborhood
& Physical
Environment**



Education



**Healthy
Food**



**Community
& Social
Support**



Healthcare

Students with Highest Risk for Transportation Insecurity Impacting Academic Performance & Employment Opportunities

- Low Income Households
 - Disproportionally Impacts Black, Hispanic, and Native American Students
- Refugees and New Comers
- Students with Disabilities
- Single Parent Households
 - Key to Infant & Maternal Health
- Returning Citizens

Feonix Solution: Transportation Assistance Hub



Staffing

Community Development Manager
Mobility Navigator
Sustainability Outreach



Technology

Community Operations Support Center
MaaS Technology
Mobility Wallet



Community Support

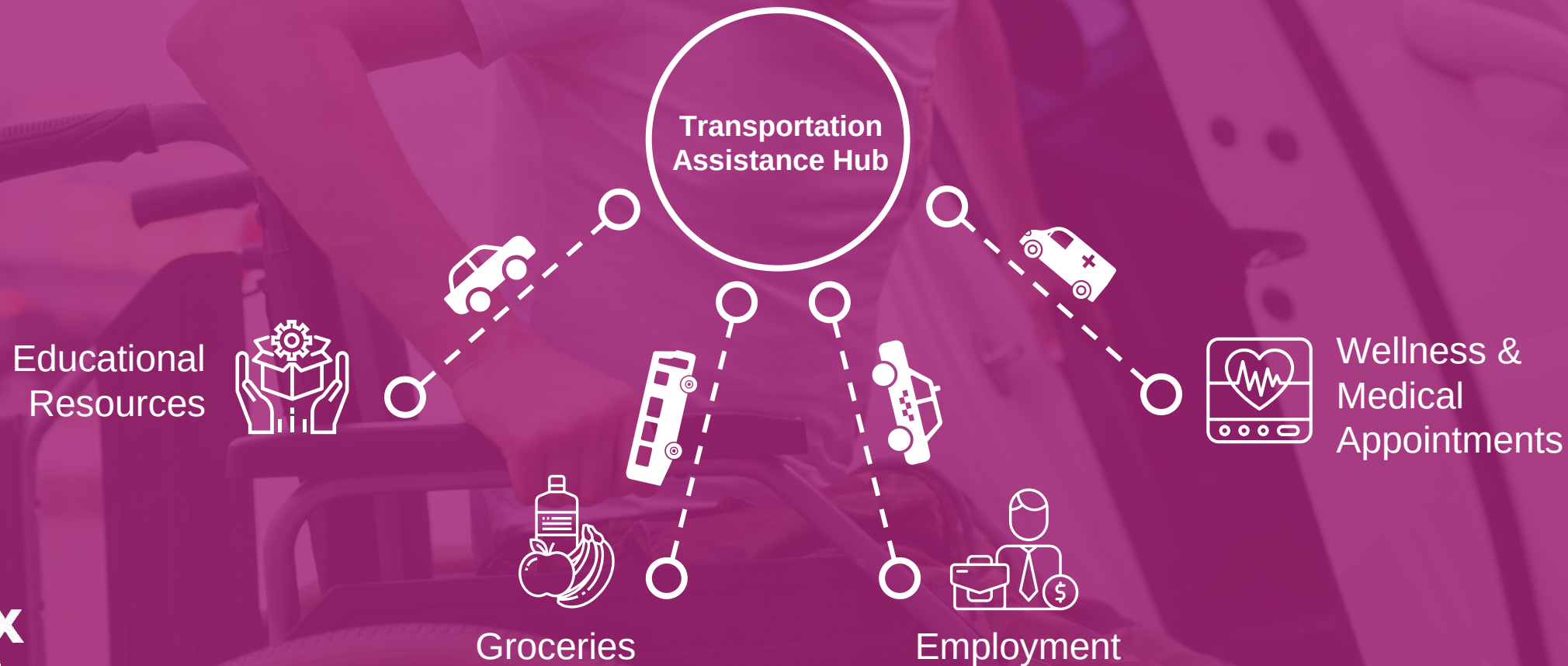
Mobility Leadership Circle
Transportation Directory
Transportation Subsidy Library



Capacity

Local Transportation Providers
- Public, Private, & Public Transit
Volunteer Drivers

Transportation Assistance Hubs Enable Mobility for all Social Determinants of Health



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Volunteer Drivers

Mobility Navigator

○ Individualized Mobility Management

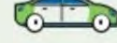
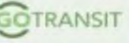
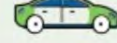
Enhanced Eligibility
Criteria for Resources

○ Expertise & Support Navigating Complete Transportation Ecosystem



Example of Ride Subsidy Matrix

(7 Programs with Unique Requirements)

----- Transportation Gaps -----							
Organization & Program	Services	Federal Poverty Level Requirement	Must Reside in Service area	Employment Requirement	Minimum hours per week	Limited Duration of Service	Program enrolment required
 W-2	Monthly bus passes or gas vouchers up to \$50 per month	 150% Federal Poverty Level				 Limited to 90 days	
 WETAP	Vehicle loan up to \$1,600 or repair up to \$1,600	 150% Federal Poverty Level		 Employed or have a job offer		 Until vehicle is purchased or repaired	
 WHEELS TO WORK	Vehicle loan up to \$4,500 or repair up to \$1,000			 Employed 3+ months	 20 hours		
 TRANSPORTATION ASSISTANCE	1-20 bus rides in a six-month period or limited gas vouchers		 Live and work on bus route	 Actively seeking or starting work		 6 months (renewable)	
 BUS SERVICE	10 Bus Routes		 Live and work on bus route				
 ACCESS TO JOBS	Taxi Services	 150% Federal Poverty Level	 Live and work on bus route	 Currently employed	 30+ hours	 Until exceeds income eligibility	 Application must be approved
 MAKE THE RIDE HAPPEN	Low-cost rides to work					 Until exceeds income eligibility	 Application must be approved

Elevate Vehicle Subscription



RECONDITIONED
VEHICLE Assured by
Certified Technicians



INSURANCE
Coverage Included



MAINTENANCE At
No Extra Cost

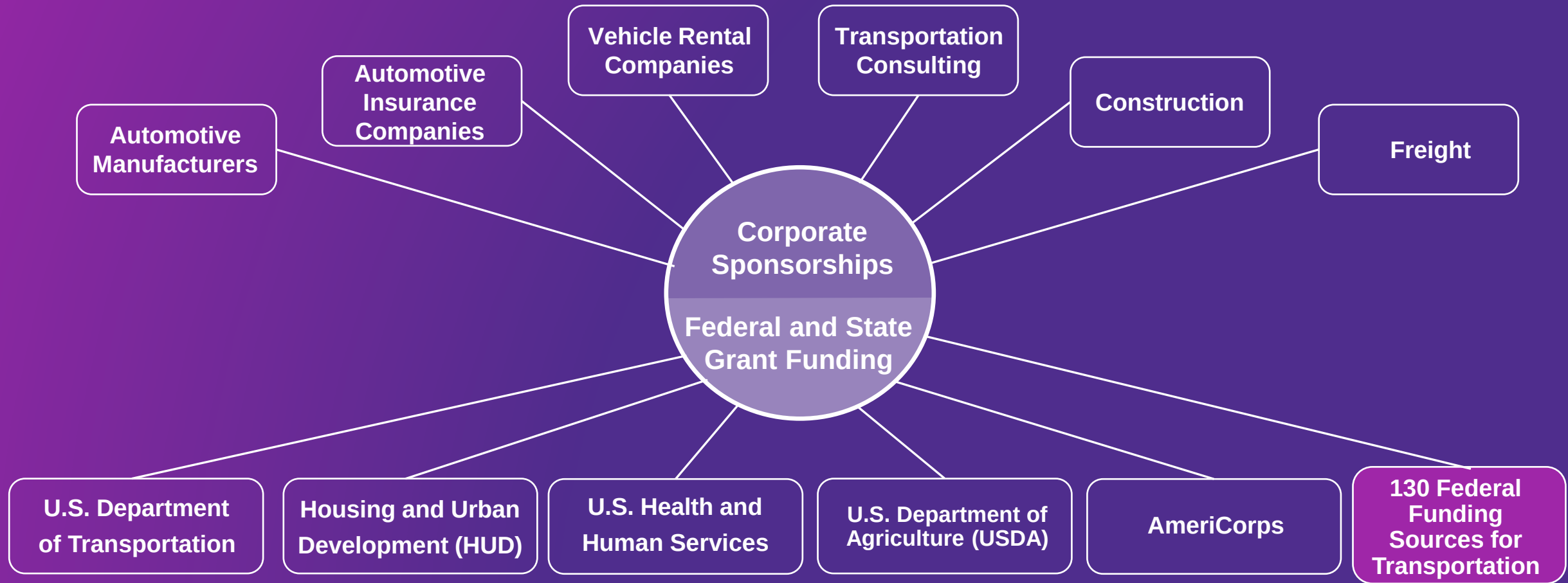
\$399
A MONTH

- Zero Down
- No Hidden Fees
- Month-To-Month
- Payment Plan



Sustainability Outreach

Supportive Resource Development & Grant Writing



Feonix Solution: Transportation Assistance Hub



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Capacity

Local Transportation Providers
- Public, Private, & Public Transit
Volunteer Drivers

Mobility Leadership Circle



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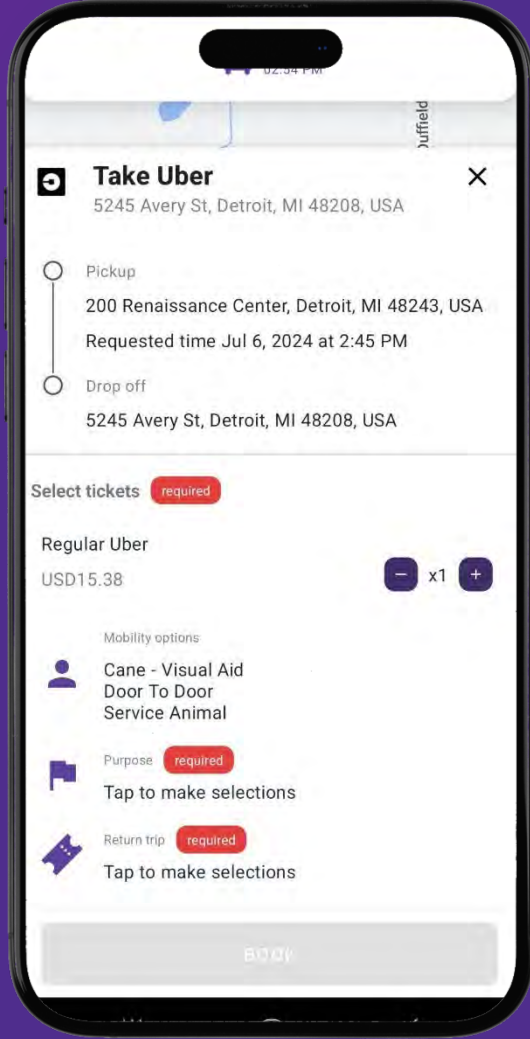
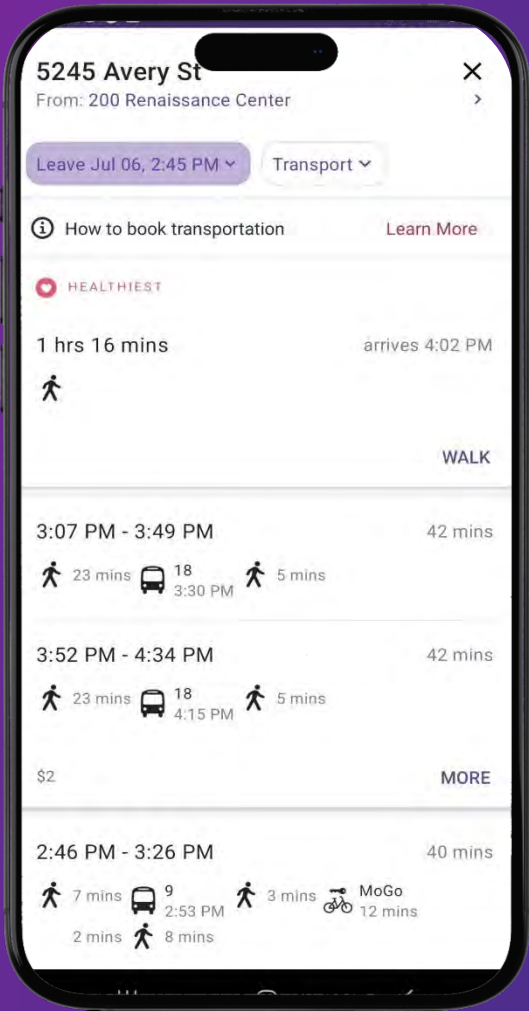
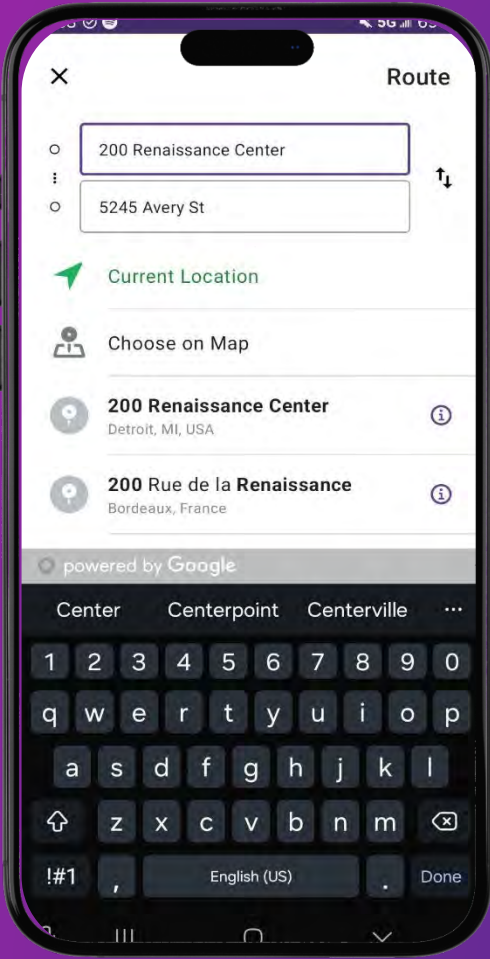
Capacity

Local Transportation Providers
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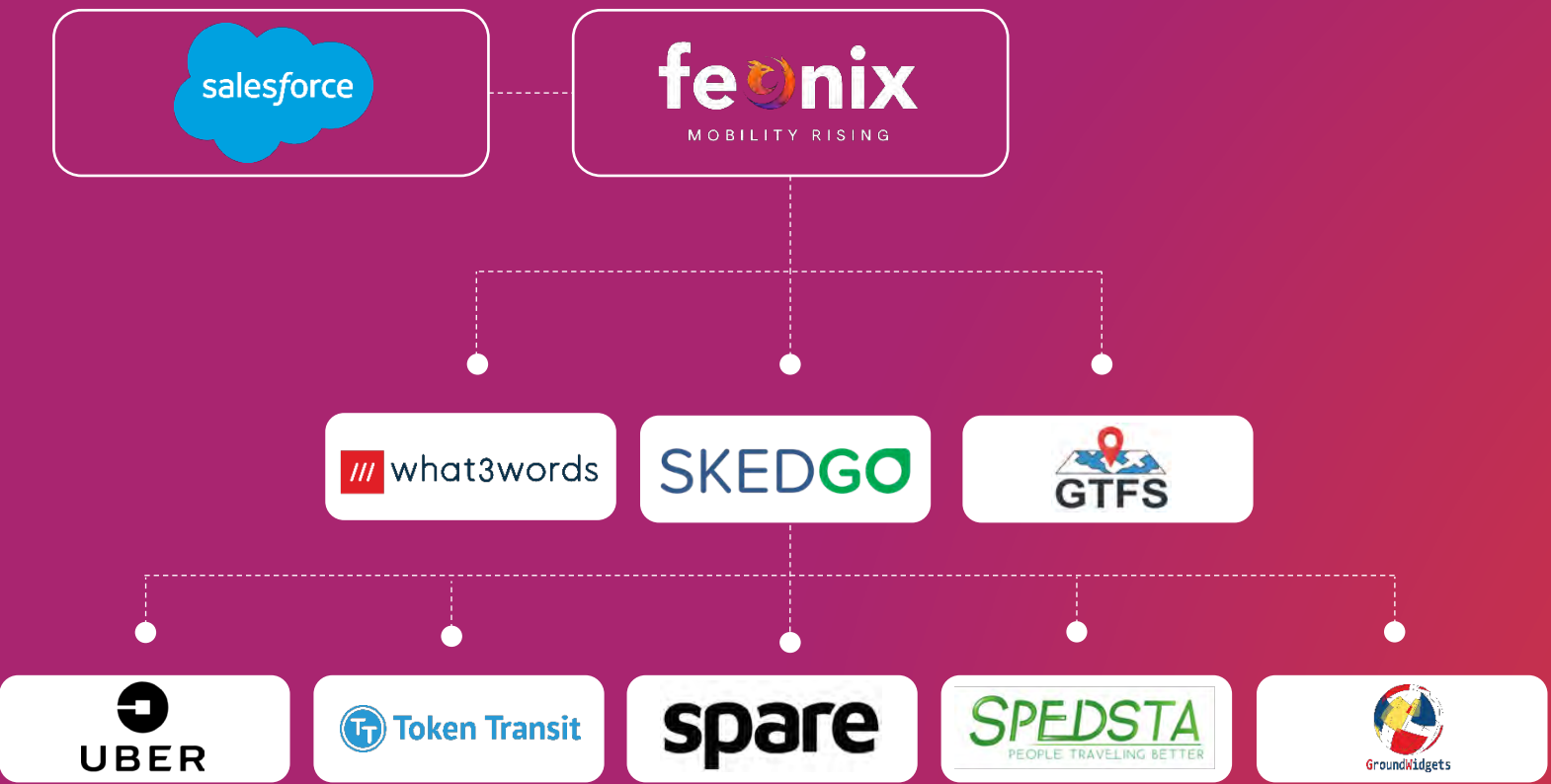
Mobility as a Service



Accessible App Technology



Technology Architecture





Ride United - Public Transit Pass

0 users · Active

DESCRIPTION

Sponsored by: United Way for Southeastern Michigan and Detroit Works!

SPONSOR IMAGE



Ride United - Public Transit Pass

Transport Mode	Discount	Reward points per dollar spent	Offer description
 Token Transit	0%	0	

Subscription duration	Subscription fee	Subscribers	Activation status
Monthly	\$0	Current: 0 Upcoming: 0	Activated

All statuses

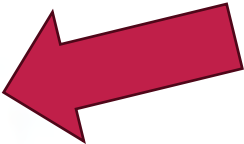
All providers

All payment statuses

Group by

None

Export data



Obi-Wan Kenobi

Edit user

Reset password

ADA ID

Exclusive modes enabled

Note

Wallet

Add wallet

Bookings

Transit

All statuses

All providers

All payment statuses

Export data

Assign wallet

Wallet

Ride United - Public Transit Pass

×

Subscription
Duration

Monthly

Initial Balance

\$

50

Note

Rides to Work - Wallet Starts July 2024

Details

Transport Mode

Discount

Reward points
per dollar spent

Offer description



Token Transit

0%

0

Subscription Duration

Subscription fee

Monthly

\$0

ADA ID

1

Email

onlyhope@test.com

Phone

1231231234

Exclusive modes enabled

None

Organizations

Feonix CBA

Wallet

Name	Subscription duration	Start	Expiry	Money Balance	
Ride United - Public Transit Pass	Monthly	Jul 03	Aug 01	\$50	

Add future wallet

Bookings

Tickets

All statuses ▾ All providers ▾ All payment statuses ▾ Group by Day ▾

Today

07/03/2024

07/18/2024

 [Export data](#)

Page size

10



No results found

Full Package

0 users · Active · Visible to nobody

DESCRIPTION

Ford Philanthropy - Access to Care

SPONSOR IMAGE



Ford Philanthropy - Access to Care

Transport Mode	Discount	Reward points per dollar spent	Offer description
 Care On Wheels Transportation	0%	0	
 WAVE	0%	0	
 Volunteers - Detroit	0%	0	
 Volunteers - Grand Rapids	0%	0	
 Volunteers - Jackson	0%	0	
 Key Opportunities	0%	0	
 Hope Network	0%	0	
 Ride Your Way	0%	0	
 Uber	0%	0	
 Lenawee Public Transport Authority	0%	0	
 Jackson Transportation Authority	0%	0	
 Rides to Wellness	0%	0	

Subscription duration	Subscription fee	Subscribers	Activation status
Monthly	\$0	Current: 0 Upcoming: 0	Activated

All statuses

All providers

All payment statuses

Group by None

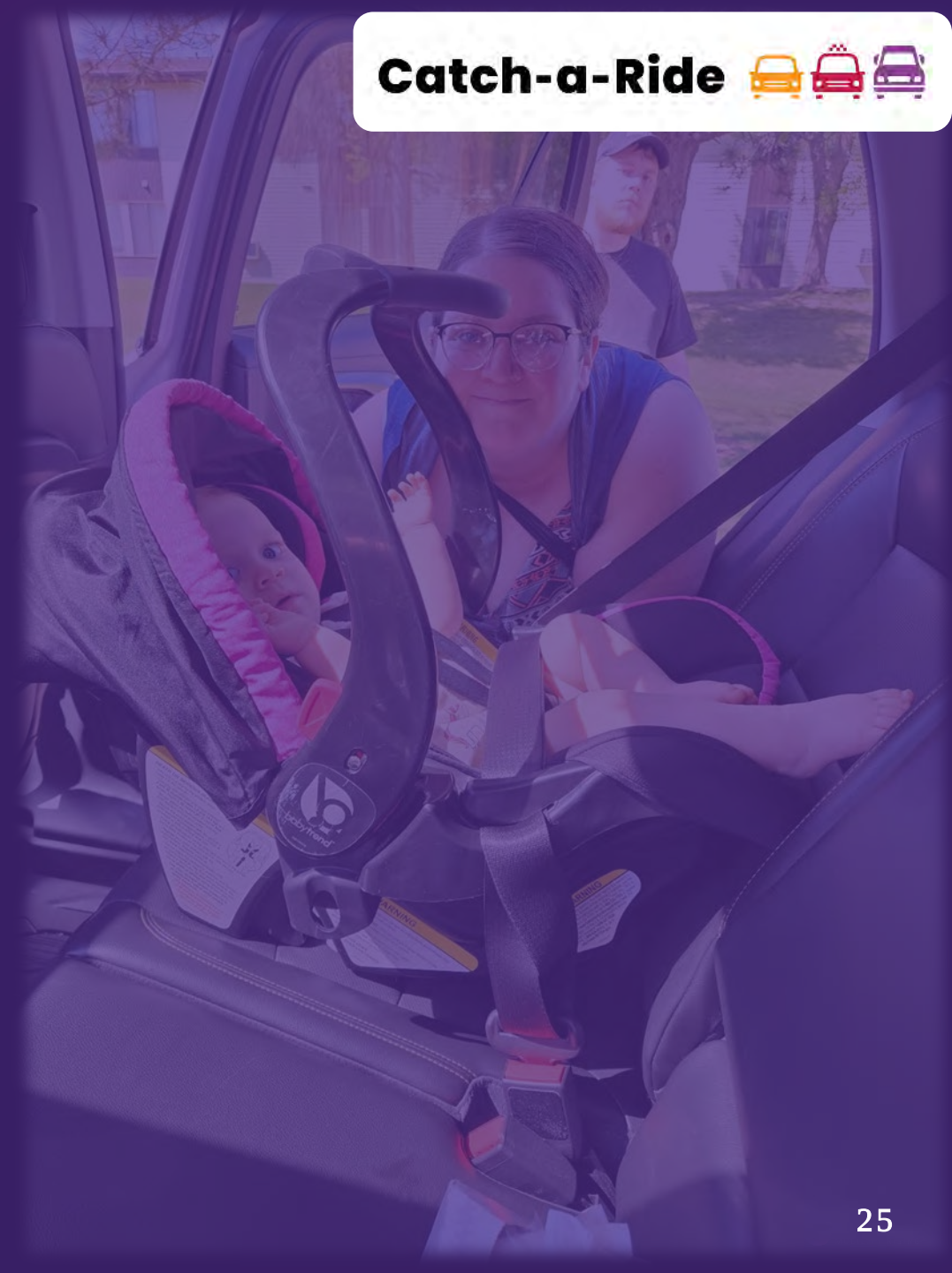
*Example of Mobility
Wallet that has Multiple
Transportation Providers
Across Several Regions*

Banking the Unbanked with Mobility Wallets & MoCaFi Partnership



Providing a cashless payment option for the unbanked.

Catch-a-Ride 🚗 🚕 🚘





Student Centered Mobility Solution

Mobility Wallet Provides Flexible Transportation to Access:

- **Access Courses Best for Student Academic Achievement, Course Path, and Interests**
- **Participate in Group Projects & Study Groups**
- **Internships / Job Training / Employment Opportunities**
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- **Access Healthcare Services (Physical & Mental Health)**



Public
Transit

Medicaid

State
Department

TANF/
SNAP

Dept. of
Justice

Centers for
Independent
Living

+ 100 Other
Programs

Transportation Silos of Resources & Information



Public
Transit

Medicaid

Medicare

TANF/
SNAP

Older
Americans
Act

Vocational
Rehabilitation

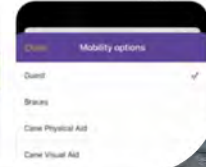
+



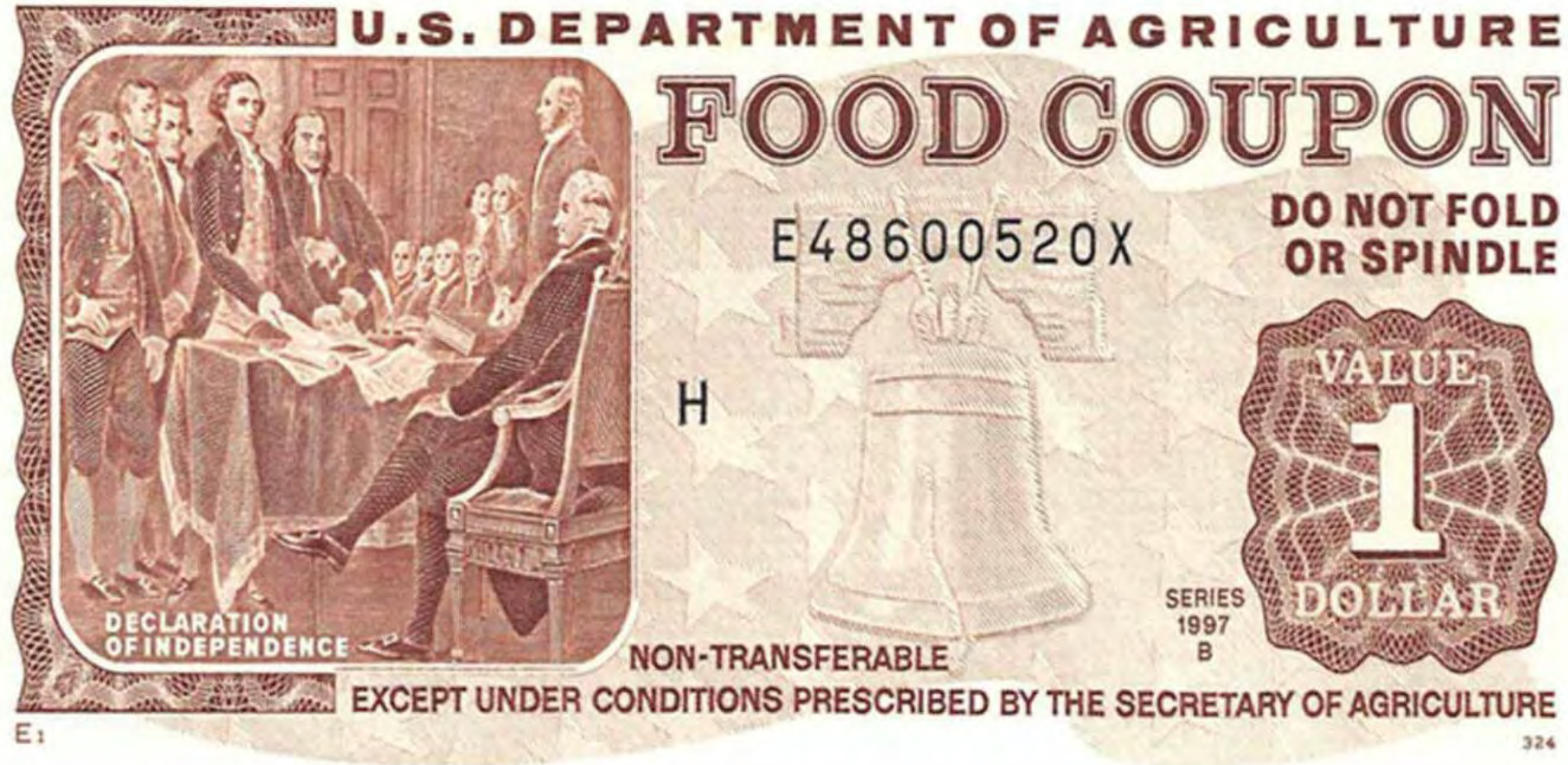
Catch a Ride 4+
Feonix - Mobility Rising
Free



iPhone Screenshots



Food Stamps – Printed in 1997



Food Stamps – Every State Uses EBT Cards in 2023



Transportation Security Index



Transportation Security Index (TSI):

A validated, individual-level measure that directly captures the experience of transportation insecurity, regardless of geography or mode of transit (Gould-Werth et al. 2018; Murphy et al. 2021)

<https://poverty.umich.edu/research-funding-opportunities/data-tools/the-transportation-security-index/>

Validated TSI Short-form (6-items)

In the past 30 days, how often did you have to reschedule an appointment because of a problem with transportation?

In the past 30 days, how often did you skip going somewhere because of a problem with transportation?

In the past 30 days, how often were you **not** able to leave the house when you wanted to because of a problem with transportation?

In the past 30 days, how often did you feel bad because you did not have the transportation you needed?

In the past 30 days, how often did you worry about inconveniencing your friends, family, or neighbors because you needed help with transportation?

In the past 30 days, how often did problems with transportation affect your relationships with others?

TSI Score Used to Allocate Mobility Wallet Budget



TSI Score		90 Day Wallet	Avg Trip	# Trips	Monthly Trips	Total Trips Per Wallet	Monthly Allocation
Ambulatory							
0-1	Bronze	\$192	\$32.00		2	6	\$64.00
2-5	Silver	\$325	\$32.00	10	3	10	\$108.33
6-7	Gold	\$650	\$32.00	20	7	20	\$216.67
7+	Platinum	\$1,275	\$32.00	40	13	40	\$425.00
Accessible/Door to Door Assistance							
0-1	Bronze	\$900	\$150.00		2	6	\$300.00
2-5	Silver	\$1,500	\$150.00	10	3	10	\$500.00
6-7	Gold	\$2,250	\$150.00	15	5	15	\$750.00
7+	Platinum	\$4,500	\$150.00	30	10	30	\$1,500.00

Feonix Solution: Transportation Assistance Hub



Staffing

Community Development Manager
Mobility Navigator
Sustainability Outreach



Technology

Community Operations Support Center
MaaS Technology
Mobility Wallet



Community Support

Mobility Leadership Circle
Transportation Directory
Transportation Subsidy Library



Capacity

Local Transportation Providers
- Public, Private, & Public Transit
Volunteer Drivers

Partner with Local Transportation Providers

We reach out to existing transportation providers in the community and first work to partner and integrate technology to optimize use of local options, support small business, and expand capacity if needed.



**Public Transit
Agencies**



Taxi Services



**Non-Emergency
Medical Transportation
Providers**



Bike & Scooter Share

Feonix Volunteer Force

Multi-State, Federal, State, County, and
Local 7+ Year Background Checks

Phone Interview & In-Person Meeting &
Ride Along with Feonix Staff

Use Person Vehicle with Current State
Vehicle Inspection, Vehicle Registration,
License, & Insurance on File

OR

Use of Feonix Provided Vehicle



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Questions?

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TRANSPORTATION RESEARCH BOARD

Todd Pisani
Research Project Manager
Rutgers University's Center for Advanced
Infrastructure & Transportation



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TRANSPORTATION RESEARCH BOARD

Dawn Tucker
Senior Transportation Specialist
U.S. Department of Transportation



**U.S. Department
of Transportation**

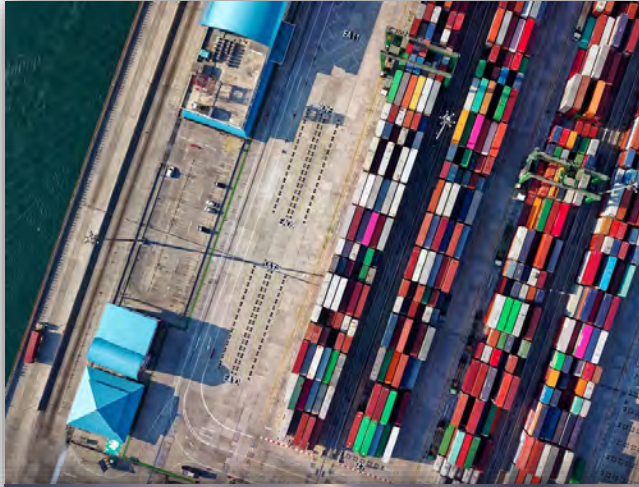


Workforce Development Opportunities at the U.S. Department of Transportation

Dawn C. Tucker
Office of Public Engagement
Office of the Secretary

The Infrastructure Investment and Jobs Act in Brief

Top areas of investment:



**Roads, Bridges, and
Major Projects**
\$110 Billion

Public Transit
\$89.9 Billion

**Electric Vehicles
and Buses**
\$15 Billion

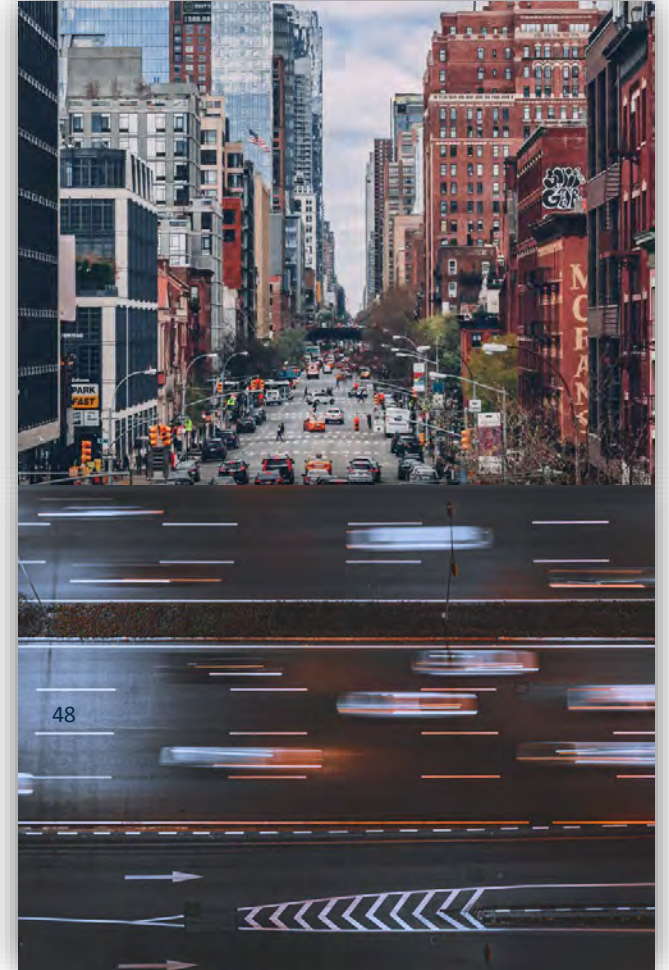
**Environmental
Remediation and
Power Infrastructure**
\$86 Billion

**Transportation
Safety**
\$11 Billion

**Passenger and
Freight Rail**
\$66 Billion

**Airports, Ports,
and Waterways**
\$42 Billion

**Other Areas of
Investment**
\$121 Billion



Infrastructure Investment and Jobs Act (IIJA; P.L. 117-58, November 15, 2021) known as Bipartisan Infrastructure Law

- Reauthorized the University Transportation Centers Program and authorizes \$90 million per year from FY 2022 to FY 2026
 - Transportation Secretary must make grants available to eligible recipients to establish and operate UTCs
- UTCs selected by the Secretary, in consultation with the heads of the operating administrations of the US DOT, as appropriate (49 U.S.C. § 5505(b)(4)(B) as amended by P. L. 117-58, Sec. 25017)



UTC Program Purpose and Center Objectives

Advance transportation expertise and technology through research, education and workforce development, and technology transfer

Provide a critical multimodal transportation knowledge base outside the USDOT

Address vital workforce needs and educate the next generation of transportation leaders

Statutory Research Priorities

“I am inspired by the cutting-edge transportation technologies our UTCs are developing,” ~ Secretary Buttigieg



UTCs must support **surface transportation** through the following US DOT statutory research priorities:

- Improving Mobility of People and Goods
- Reducing Congestion
- Promoting Safety
- Improving the Durability & Extending the Life of Transportation Infrastructure
- Preserving the Environment
- Preserving the Existing Transportation System
- **Reducing Transportation Cybersecurity Risks (NEW)**

See 49 U.S.C. § 6503(c)(1) as amended by the IIJA, Sec. 25014

Relationship to Administration & USDOT Efforts

- **USDOT Strategic Planning and Innovation Efforts**
 - FY 2022 – 2026 USDOT Strategic Plan
 - FY 2022 – 2026 Research, Development & Technology Strategic Plan
 - USDOT Equity Action Plan
 - USDOT Innovation Principles
 - National Roadway Safety Strategy
- **Executive Orders and Presidential Memoranda**
 - Advancing Racial Equity and Support Underserved Communities Through the Federal government
 - Tackling the Climate Crisis at Home and Abroad
 - Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking
 - National Security Presidential Memorandum No. 33
 - *Leveraging Federal Research & Development in Support of Domestic Manufacturing and U.S. Jobs* (White House priority effort currently underdevelopment to ensure federal investment in R&D leads to increased domestic manufacturing)

U.S. DOT'S MISSION

To deliver the world's leading transportation system, serving the American people and economy through the safe, efficient, sustainable, and equitable movement of people and goods.



USDOT Equity Action Plan

U.S. DOT published an updated **Equity Action Plan** in February 2024. The plan highlights actions taken across U.S. DOT to address key disparities.

U.S. DOT actions fall under **five focus areas** that aim to expand access and opportunity to all communities while **focusing on underserved, overburdened, and disadvantaged communities.**

-  Wealth Creation
-  Power of Community
-  Proactive Intervention, Planning, and Capacity Building
-  Expanding Access
-  Institutionalizing Equity

RD&T Strategic Plan Research Priority

Creating Pathways to Good Quality Jobs



Attract and develop a new generation of transportation workers, while supporting the retention and training of the current workforce.



Support workforce and educational programs that create and promote opportunities for careers in transportation



Enhance efforts to recruit, develop, hire, and retain a diverse and inclusive workforce



Invest in research, education, and training to build skills and create jobs so the workforce is prepared to harness new technologies and practices to create a better transportation future for all.



U.S. Department
of Transportation

K-12 Summer Programs



North Carolina
Agricultural and Technical
State University™



The University of Texas
Rio Grande Valley™



SJSU SAN JOSÉ STATE
UNIVERSITY



Certificate Programs/Resources for Instructors



Advanced Transportation Center (2015) – a partnership with Washentaw Community College to prepare the future and existing workforce for emerging need in advanced transportation including ITS, advanced manufacturing, and automotive services.



Connected and Automated Transportation Certificate – (currently under development) a new certificate program on connected and automated transportation consisting of 6 to 8 modules oriented towards advanced concepts for engineering students.

Transportation Cybersecurity Certificate Program – (currently under development) This program will include 3 online course modules on Zero Thrust Architecture, Hardware Security, and Security Engineering



Sustainable Transportation Concepts: A Mini-Lecture Series (2019) – video lectures aim to supplement college-level courses with sustainable transportation-related material.



Workforce Development Resources

FAA

- **Aviation Workforce Development Grants** - https://www.faa.gov/about/office_org/headquarters_offices/ang/grants/awd/awards

FHWA

- **Highway Funding for Workforce Development** - <https://www.transportation.gov/sites/dot.gov/files/2022-06/Highway-Funding-Workforce-Development.pdf>

FTA

- **Workforce Development Initiative** - <https://www.transit.dot.gov/research-innovation/workforce-development-initiative>

MARAD

- **Centers of Excellence for Domestic Maritime Training and Education** - <https://www.maritime.dot.gov/maritime-workforce/maritime-centers-excellence>

DOT Navigator – One Stop Shop



Search Technical Assistance Resources

At DOT, “technical assistance” includes programs, processes, and resources that provide targeted support to a community, region, organization, or other beneficiary to help them access and deploy federal funding and build local capacity to develop, design, and deliver transportation plans and projects.

View and search the table below to find existing technical assistance resources and programs funded or managed by DOT that can provide deeper levels of assistance, technical information, best practices, and training.

Keywords

▼ Advanced options

Stakeholder Type(s)

Select All

☐ Contractor

☐ Local Government

☐ Other

☐ Regional/Metro Planning Orgs (MPO)

☐ State DOT

☐ Transit Agency

☐ Tribal Government

☐ U.S. Territory

Resource Type(s)

Select All

☐ Direct Support

☐ Fact Sheet

☐ Grant

☐ Guidance Document

☐ Report

☐ Resource Center

☐ Toolkit

☐ Training

☐ Video/Webinar

Transportation Mode(s)

Select All

☐ Air (airports, aviation, drones)

☐ Bicycle

☐ Electric or Autonomous Vehicles

☐ Highway

☐ Intelligent Transportation and Data Systems

☐ Micromobility (bike share, scooters, etc.)

☐ Pedestrian

☐ Ports

☐ Railway

☐ Transit

Apply

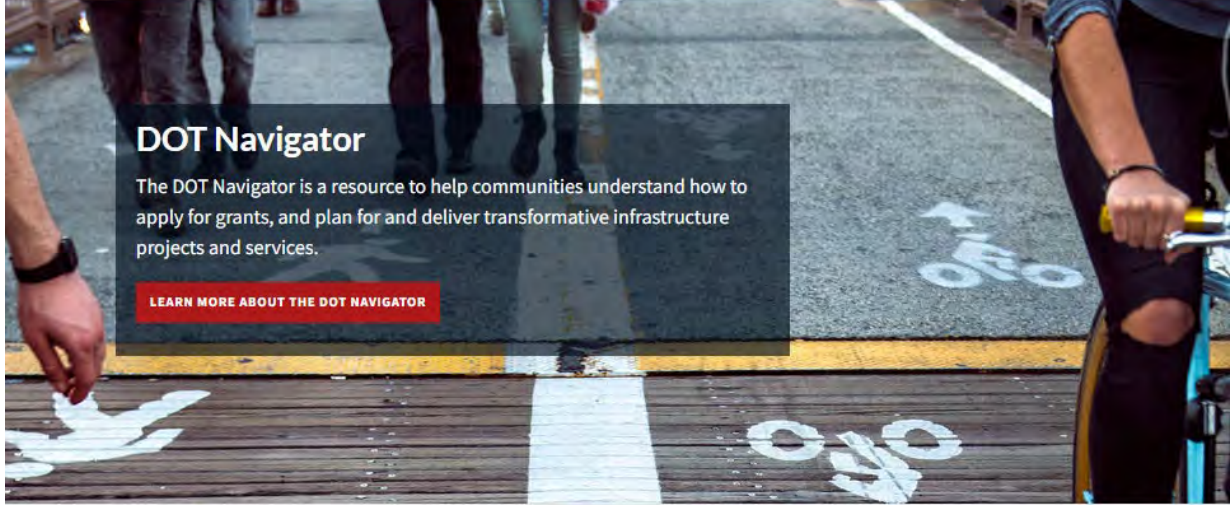
<https://www.transportation.gov/dot-navigator>

 U.S. Department of Transportation

ABOUT DOT ▼ PRIORITIES ▼ CONNECT ▼





DOT Navigator

The DOT Navigator is a resource to help communities understand how to apply for grants, and plan for and deliver transformative infrastructure projects and services.

[LEARN MORE ABOUT THE DOT NAVIGATOR](#)

Spotlight on Technical Assistance Resources

Check out the featured technical assistance resources below and view a [searchable list of technical assistance resources](#).



BIL Funding Guidance for Local and Tribal Agencies

Find BIL funding information from FHWA for local and Tribal agencies



Funding Safety for All through Complete Streets Networks

Explore federal funding opportunities for your Complete Streets Network



Bipartisan Infrastructure Law (BIL) Launchpad

Find information on available funding and get technical support



**U.S. Department
of Transportation**

Thank You!

Sign-up to receive the latest
updates from DOT:



Questions Beyond Today? Email us at Engage@dot.gov