

First-Last Mile Connectivity for Missourians

Research Project

Saint Louis, MO

September 4, 2024



SHARED-USE
MOBILITY CENTER



Acknowledgment

Missouri Department of Transportation

Research Project TR202412



Disclaimer

The opinions, findings, and conclusions expressed in this document are those of the investigators. They are not necessarily those of the Missouri Department of Transportation, U.S. Department of Transportation, or Federal Highway Administration. This information does not constitute a standard or specification.

About First-Last Mile

Who is familiar with the first-last mile challenge?

Who has made a first-last mile connection in the last month?

What modes have you used for first-last mile connections?

Where have you used a first-last mile service?

Introduction to First-Last Mile

The first-last mile problem refers to situations when travelers cannot use transit (usually fixed-route public transit) because a stop is too far away from their origin or destination, or the service does not run frequently enough at useful times. In many places, it is difficult for travelers to reach their destinations if a first-last mile service is not offered.

Cities, counties, transit agencies, and employers can enable first-last mile services to support workers' access to transit and workplaces.

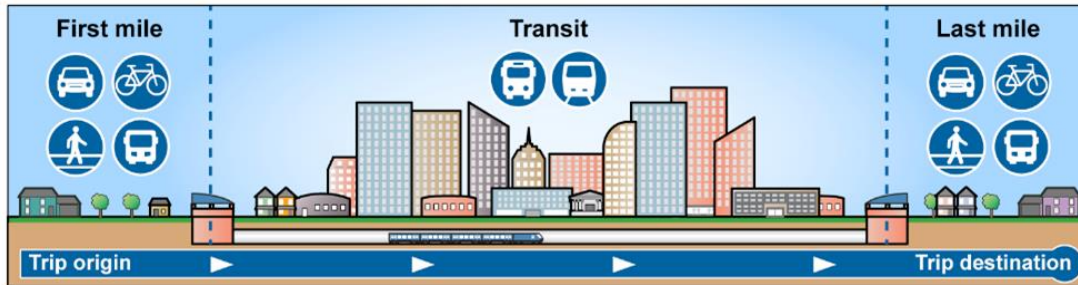


Image Credit: [United States Government Accountability Office](#)

Research Activities

Research Activities

1. 15 in-depth case studies of existing first-last mile services around the country
2. 5 Interviews with leaders from first-last mile services around the country
3. 2 Interviews with Missouri transportation providers
4. 90-minute Virtual forum with Missouri transportation stakeholders
5. Analysis of existing conditions for transportation in Missouri
6. Presentation of research findings at Missouri Public Transit Association conference

Case Studies

Studied 15 first-last mile examples across the US, including programs in Delaware, Washington, Ohio, Illinois, Florida, Missouri, Wisconsin, and more

Cited examples from State DOTs as well as local transit agencies and one privately-owned railroad with a first-last mile partnership at multiple stations



CATAGo is a First-Last Mile Shuttle operating in Crawford County, Pennsylvania. Image Credit: [CATA](#)

Virtual Forum with Missouri Stakeholders

Some key takeaways from virtual forum:

- **Spatial mismatch:** Many jobs in Missouri are moving to suburbs or exurbs, while Missourians working those jobs were moving to urban cores. Many of these jobs are largely unserved by fixed-route services.
- **Community needs assessments:** There is a gap in understanding of on-the-ground mobility issues, and community needs that agencies are not able to address because these perspectives have not been captured.
- **Policy and funding limitations:** Participants discussed limitations that create barriers to first-last mile services, including funding gaps at the federal level that translate into service gaps (e.g. regional providers not able to fill in service gaps in urban systems because of federal funding limitations).

Existing Conditions Analysis

Existing Conditions Analysis aims to understand the current demographic, commuter, and transit landscape in Missouri to determine opportunities for improvement and recommend context-specific first- and last-mile solutions for employees that meet the state's unique needs.



Transit Network Assessment

Assess the **current transit network**, including coverage, frequency, and ridership



Commute Patterns

Analyze current **commuter behavior** throughout the state, including **frequency of commuting, key destinations, and trip patterns**



Demographic Analysis

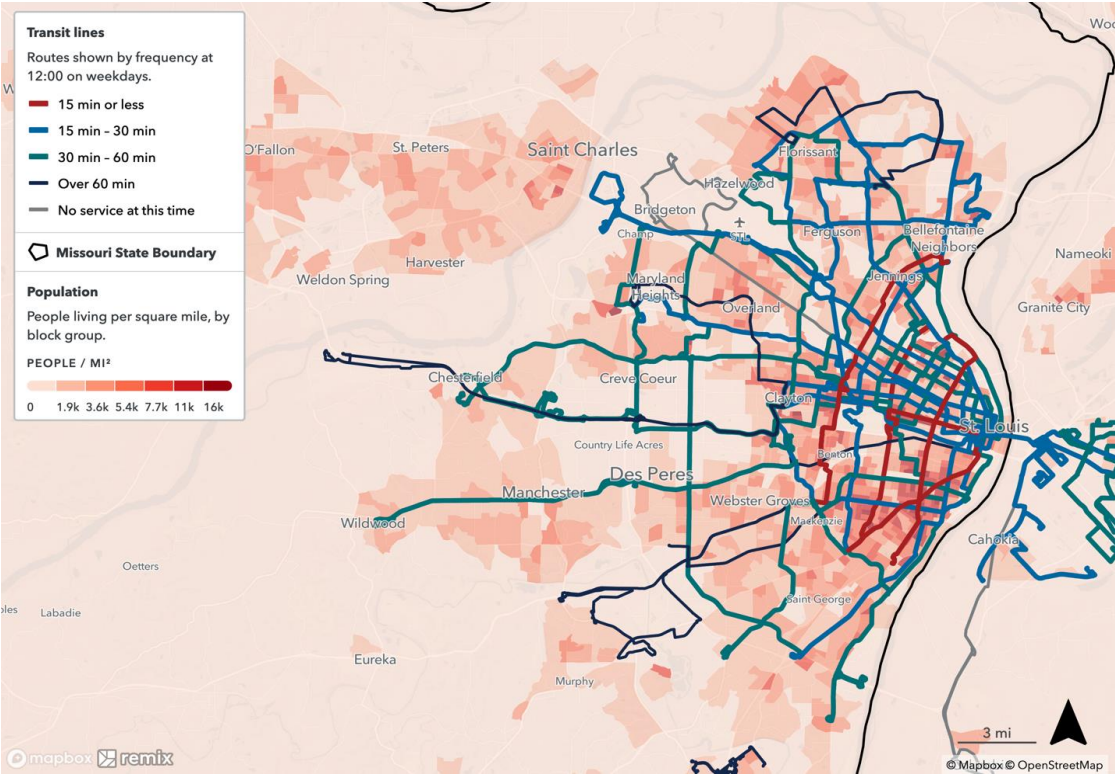
Evaluate the concentration of select **demographic groups** known to ride transit at higher rates than the average general public



Commute Typologies

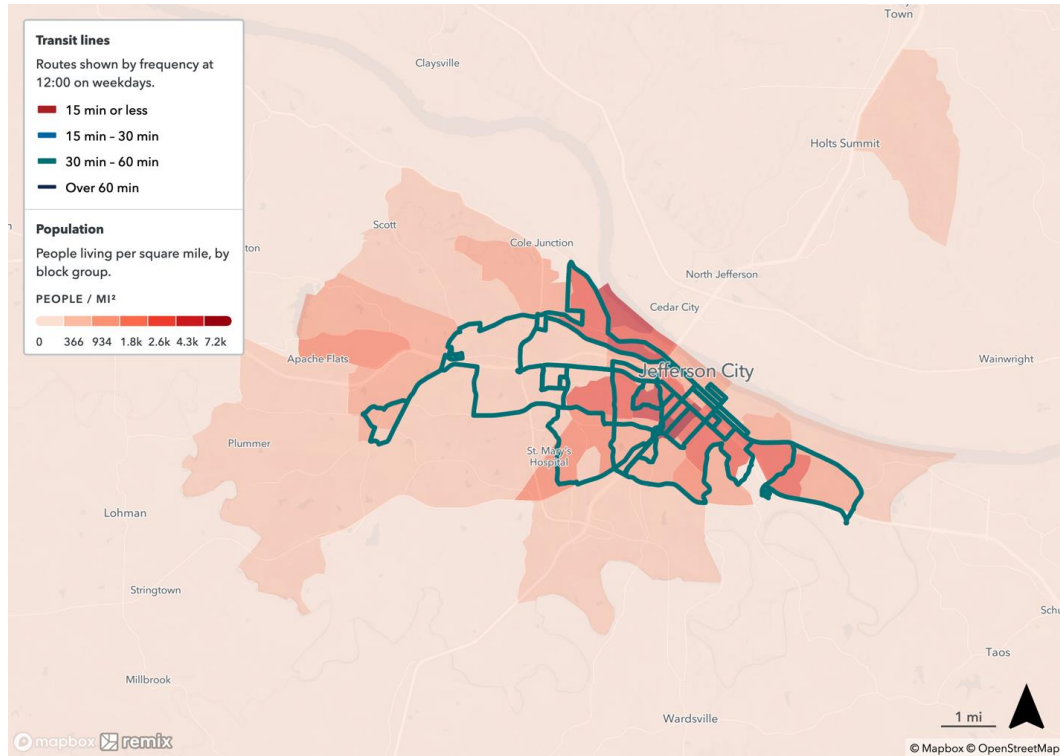
Use **commute typologies** to categorize commuter behavior throughout the state and recommend **tailored transit solutions**

Urban Fixed-Route Service: St. Louis Metro



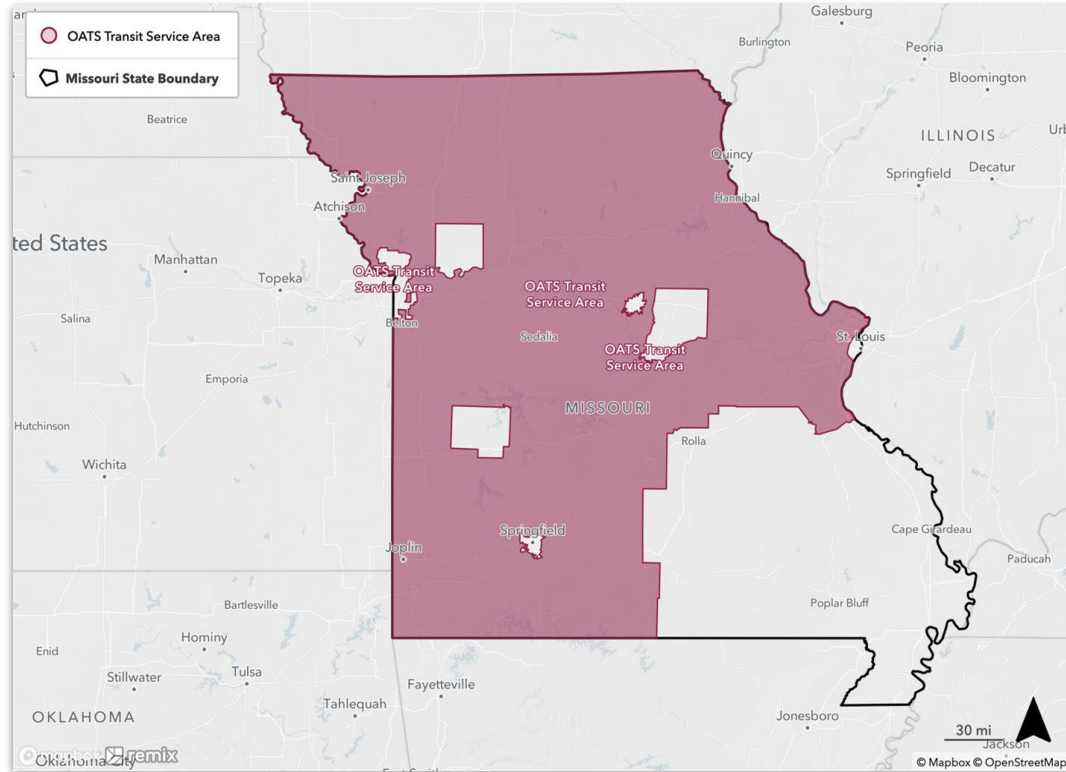
St. Louis Metro Fixed-Route Lines by Frequency. Image credit: Via

Urban Fixed-Route Service: Jefferson Transit (JeffTran)



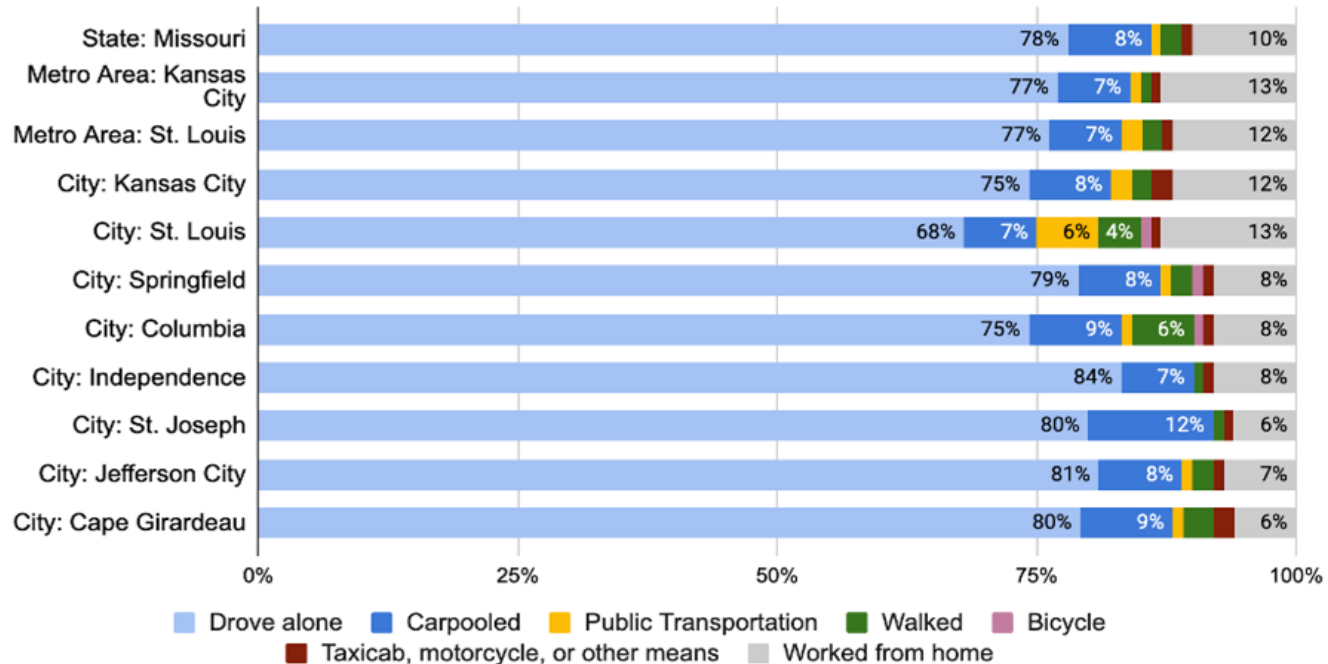
JeffTran Fixed-Route Lines by Frequency. Image Credit: Via

Other transit: OATS Transit



Oats Transit Service Area. Image Credit: Via

Transportation to Work in Missouri



Means of transportation to work in Missouri
 Source: American Community Survey 5-Year Tables (2022)

Review of Commute Typologies



1. Urban Areas



2. Suburban Areas



3. Rural Areas

a. Concentrated
Employment

1a. Urban areas with one or more core employment center(s).

2a. Suburban areas with one or more employment hubs.

3a. Rural areas that have one or more dominant employer hub(s).

b. Dispersed
Employment

1b. Urban areas that have no clear employment center(s) or district(s).

2b. Suburban areas with widely-dispersed employment opportunities.

3b. Rural areas that have widely-dispersed employers.

Findings and Recommendations

First-last mile transportation is a workforce development opportunity

Recommendations:

- Develop interagency partnerships
- Connect with state and federal workforce development agencies



Credit: [Mid-America Regional Council](#)

Implementing first-last mile solutions requires a thorough understanding of demographic, economic, and geographic contexts

Recommendations:

- Ensure that core transit services are reliable and effective
- Evaluate the demographic, economic, and geographic context of a community to most effectively implement first-last mile services

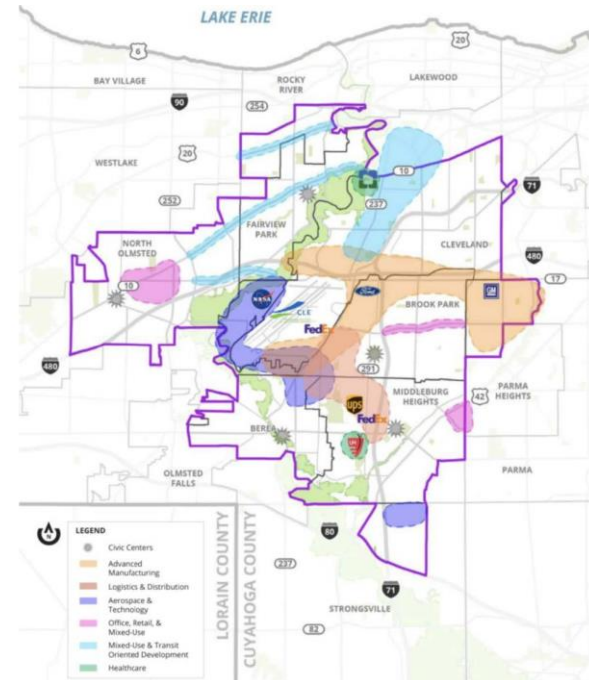


Credit: [Brightline](#)

Effective partnership building is integral to first-last mile services and employment transportation

Recommendations:

- Pursue partnerships with local employers
- Explore partnerships with a variety of organizations
- Provide directed support to local transportation providers on partnership building



Credit: [GCRTA](#)

First-last mile transportation services need community support to thrive

Recommendations:

- Plan for a targeted marketing and promotion campaign
- Seek out project champions



Credit: [SUMC Mobility Learning](#)

[Center](#)

There are significant gaps in knowledge about Missouri's transportation needs and opportunities

Recommendations:

- Perform community transportation needs assessments
- Develop knowledge-sharing resources for transportation providers about first-last mile transportation services
- Support research about first-last mile options



Credit: [Via](#)

State DOTs can play several key roles in supporting first-last mile transportation initiatives

Recommendations:

- Support first-last mile feasibility studies
- Establish first-last mile connectivity grant programs
- Invest in statewide or regional technology infrastructure development to promote multimodal transportation



Credit: [Brightline](#)

For Discussion

Which of these recommendations resonate the most with you?

What first-last mile solutions would you like to see in your communities?

What resources or support would be most beneficial to you to develop first-last mile services?

Thank you

Alvaro Villagran

Director of Federal Programs
Shared-Use Mobility Center
alvaro@sharedusemobilitycenter.org



Luba Guzei

Director of Strategy
Via Transportation
luba.guzei@ridewithvia.com

