Metro Transit Shared Mobility Program

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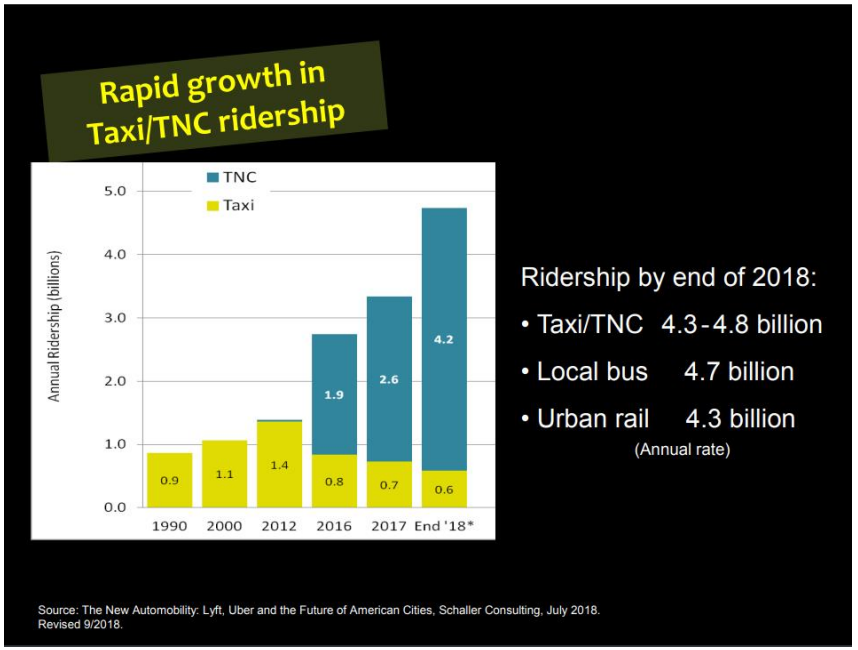
National Context

- Benefits: Reduce need for personal vehicle, cheaper than taxis, technology enabled=better customer service and real time info
- Drawbacks: fair worker wages, inequitable access for unbanked/those without smart phones, limited rural access



Source: NACTO, Growth of App-Based Ride Services (2018)

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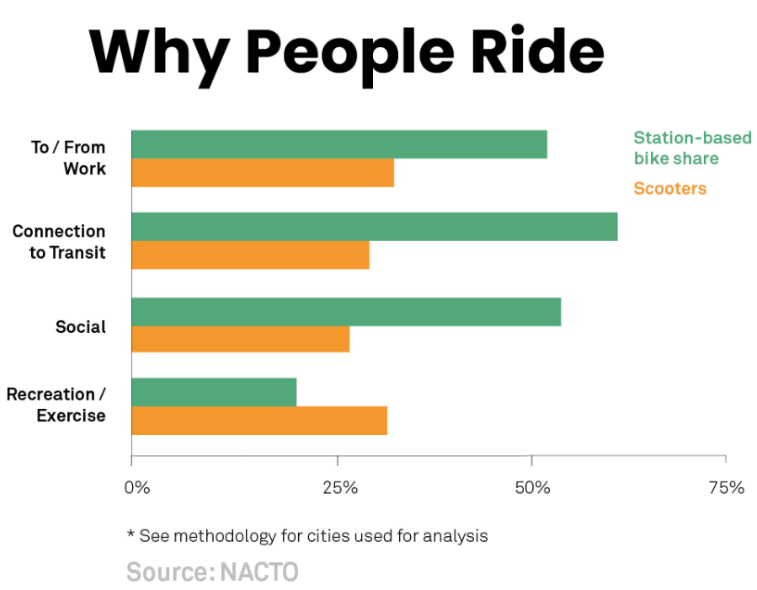
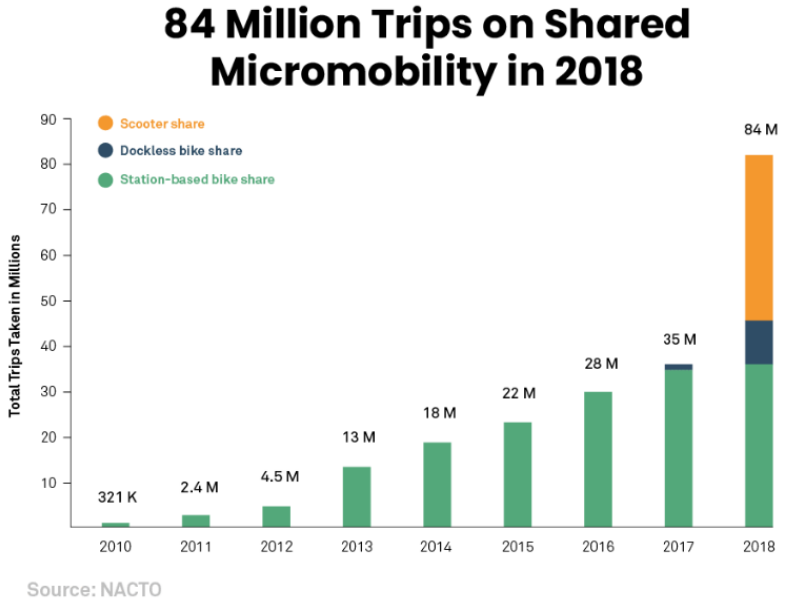
National Trends





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How is the public sector responding?

- Cities and regions becoming mobility conveners and brokers
- Responsibility to manage ROW for public use and leverage it to meet equity/transportation goals
- Learning how technology can improve services and quality of life

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Shared Mobility Examples – Transit Agencies

Microtransit service, TNC service, specialized on-demand service

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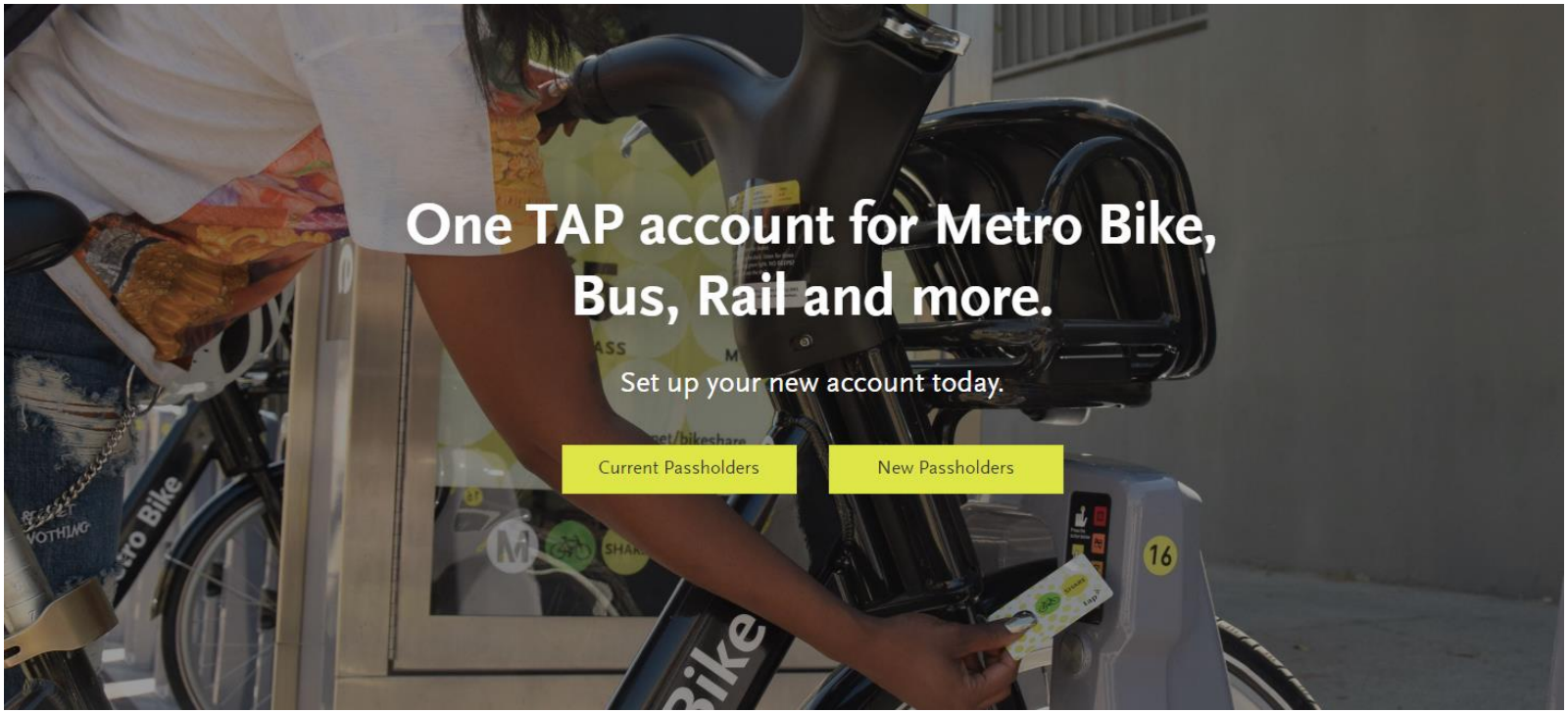
Shared Mobility Examples – Transit Agencies



Los Angeles Metro Bike Share

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Shared Mobility Examples – Transit Agencies

Plan your trip and buy your ticket in the Uber app

Transit makes it easy to get real-time information in Denver and purchase your tickets in the Uber app, so you can find the best way there and go.

Denver, RTD

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Shared Mobility Examples – Transit Agencies

Source: Sophia von Berg, Hamburg

- Mobility hubs provide physical integration between modes
- Visible emphasis on shared modes
- Facilitate multimodal travel
- Provide high-quality/visible first/last mile connections to transit

What does shared mobility mean for transit agencies?

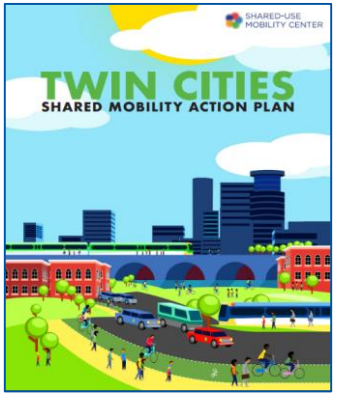
- Services compete with transit
  - Efficiency and safety of transit operations: congestion, curb access
  - Transit ridership loss
- Labor market issues
  - Bus operators and other transit jobs
  - TNC wages and working conditions
- ADA concerns
  - Bikes/scooters littering the ROW
  - Accessible services are not always available (e.g. Uber with wheelchair ramp)
- Equity of access to modes and destinations
  - Ability, income, geography, technology use
- Private sector/TNC partnerships
- Information sharing, data privacy

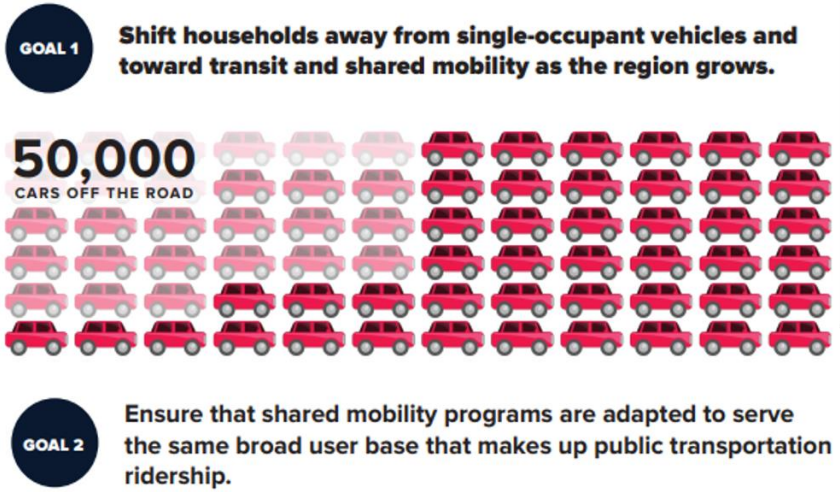
What does shared mobility mean for transit agencies?

- FTA's expanding role in funding and testing new shared mobility services
  - FTA Mobility on Demand (MOD) Sandbox (2016)
  - FTA's Innovative Mobility Integration (IMI) (2019)
    - $15 million for demonstration projects focused on three areas of interest:
      Mobility on Demand, Strategic Transit Automation Research, and Mobility Payment Integration
- IMI Goals:
  - Explore new business approaches and technology solutions that support mobility
  - Enable communities to adopt innovative mobility solutions that enhance transportation efficiency and effectiveness
  - Facilitate the widespread deployment of proven mobility solutions that expand personal mobility

Twin Cities Shared Mobility Action Plan

1. Grow Shared Mobility in Support of Transit Network
2. Pilot Flexible Transit Focusing on Reverse Commute
3. Leverage Metro Transit App to Work Towards Data Clearinghouse
4. Stabilize and Expand Carshare
5. Expand and Evolve Bikeshare
6. Elevate Vanpooling
7. Explore new Carpooling and Ride-splitting Solutions
8. Concentrate Efforts around Mobility Hubs
9. Optimize Parking and Street Space for Shared Mobility
10. Improve Transportation Demand Management Outcomes





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Twin Cities
Shared Mobility
Collaborative

Quarterly Convening: Advancing Microtransit Projects in the Twin Cities

Thursday, November 14, 2019
8:30 a.m. – 10:30 a.m.
University of Minnesota
Urban Research and Outreach-Engagement Center (UROC)
2001 Plymouth Ave N
Minneapolis, MN 55411

Shared Mobility Program - Our First Moves

1. Implement a microtransit pilot
2. Work with communities and stakeholders to define transportation challenges
3. Invest in mobility hubs
4. Maximize travel options through shared mobility and TDM
5. Establish Data Privacy and sharing standards
6. Develop long-range plans for fare collection systems and customer information tools
7. Education and collaboration

Investment Priorities = Focusing the Goal

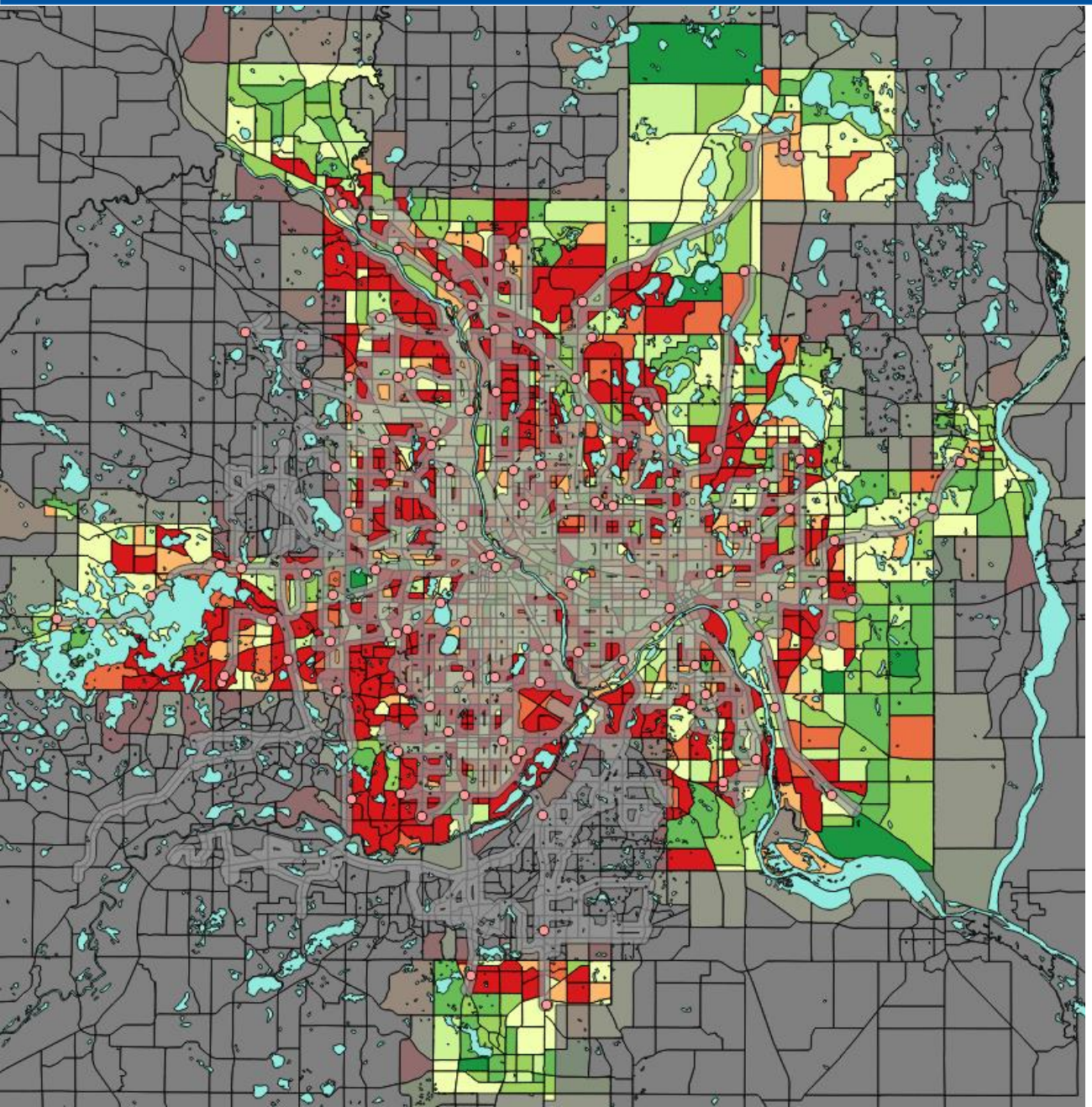
1. *Invest shared mobility services in areas close to connected to high level transit service and integrate with other providers (0-2 miles)*

2. *Increase mobility choices especially for low-income areas, communities of color, people with disabilities, and in low density, high needs area*

3. *Incorporate shared mobility where land use supports high density places with frequent service and/or transit-oriented development (TOD) investments*

Current Projects – Microtransit Pilot

- Timeline for 2020 launch underdevelopment
- Service approach: point-to-point solution v. first/last mile
- Strategies
  - **Use a consistent data-driven approach to identify areas to identify potential pilot sites and areas with high transportation needs**
  - **Make communications and education plans key deliverables of shared mobility pilots**
  - **Allow flexibility in contracting, planning, and procurement processes to test short term solutions**



FMLM Microtransit with timed transfers: Advantage over Current Transit Network

Time saved per day
(in work weeks):

- 27+
- 9 - 27
- 3 - 9
- 1 - 3
- 0 - 1
- -0.5 - 0
- -1.5 - -0.5
- less than -1.5

- Transfer Stops
- Frequent routes with 400m buffer

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Select View

- (•) Car Trips* per Transit Trip
- ( ) Transit Trips
- ( ) Car Trips*
- ( ) Population
- ( ) Jobs (LEHD data)
- ( ) Zero Vehicle Households
- ( ) Non-White %
- ( ) Under $20K %
- ( ) No HS Diploma %
- ( ) Kids %

Which Census Blocks

- (•) All
- ( ) Within 2 Miles of High Freq Transit

Show 2 Mile High Freq Boundry

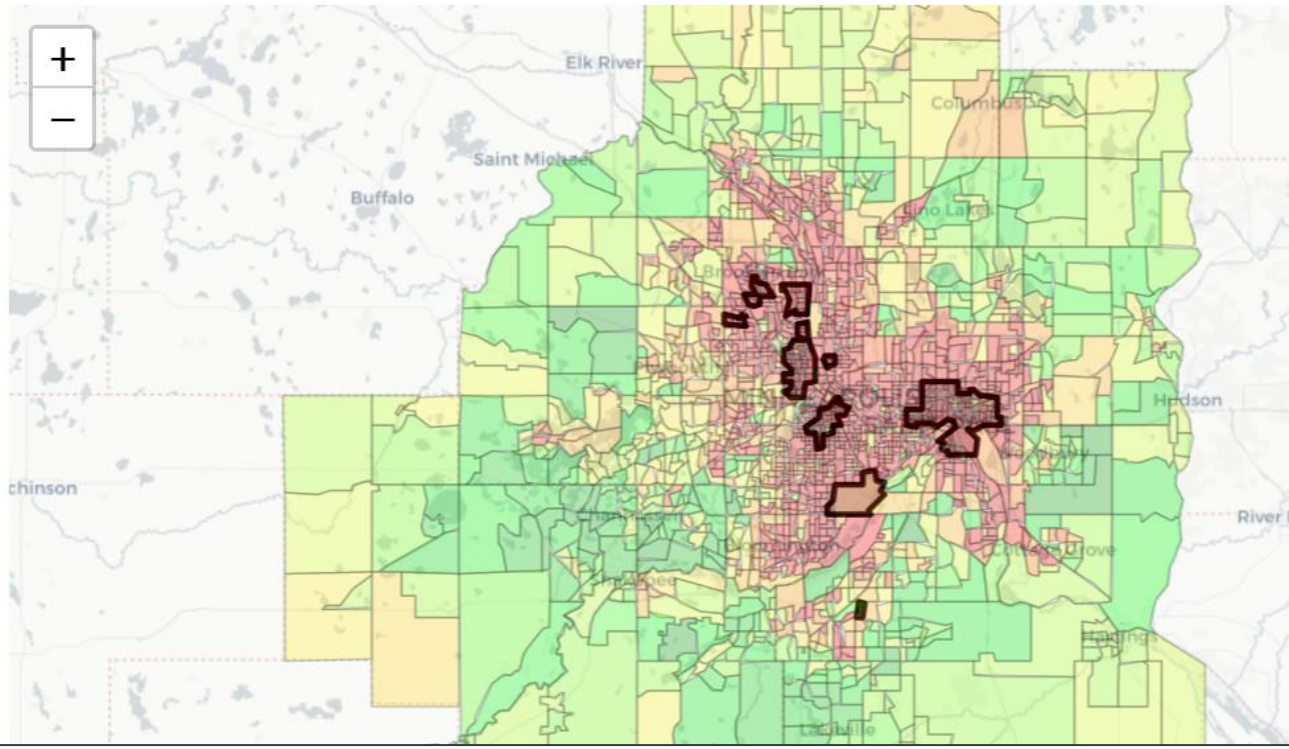
- (•) No
- ( ) Yes

Show ACP 50 areas

- ( ) No

Micro-Mobility Pilot Analysis

Transit Service Combined with StreetLight Data



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Denver RTD Microtransit Service Areas

- FMLM is driven by job density, while point-to-point is driven by population density as well
- FMLM zones are smaller than those for point-to-point
- FMLM service generates more passengers per in-service hour than point-to-point service

Denver Regional Transportation District: Call-n-Ride Performance in 2013

Service Model	Number of Vehicles (peak, offpeak)	People per sq.mi.	People and jobs per sq.mi.	Area (sq.mi)	Passengers per in-service hour	Transfer rate to fixed route
FMLM	1	2643	4794	6.8	4.1	67%
	2,1	1502	9030	1.8	7.4	95%
	3,1	1810	13378	2.2	7.8	98%
	Overall:	2256	6729	5.0	5.4	78%
Point -to- Point	1	4212	5759	9.6	3.0	-
	2	576	2352	10.0	3.6	-
	3,2	2573	2843	30.0	3.7	-
	Overall:	3626	5056	11.1	3.2	-

Source: Becker et al. (2013). Metropolitan Transit Agency's Experience Operating General-Public Demand-Responsive Transit. TRR. https://doi.org/10.3141/2352-16.

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Microtransit Pilot Approach

1. Ensure all parties agree on project goals
2. Protect fixed-route service.
3. Let community define the problem
4. Change your expectations around ridership
5. Request that microtransit software vendors provide estimated microtransit travel times for existing drive and transit trips in candidate pilot areas.
6. During pilot, ask riders to opt-in to receive survey by phone or email. This will help with analyzing user demographics and replaced modes.

Thank you!

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