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# EVALUATION OF THE **Metro MicroTransit** PILOT PROJECT

JULY 2023

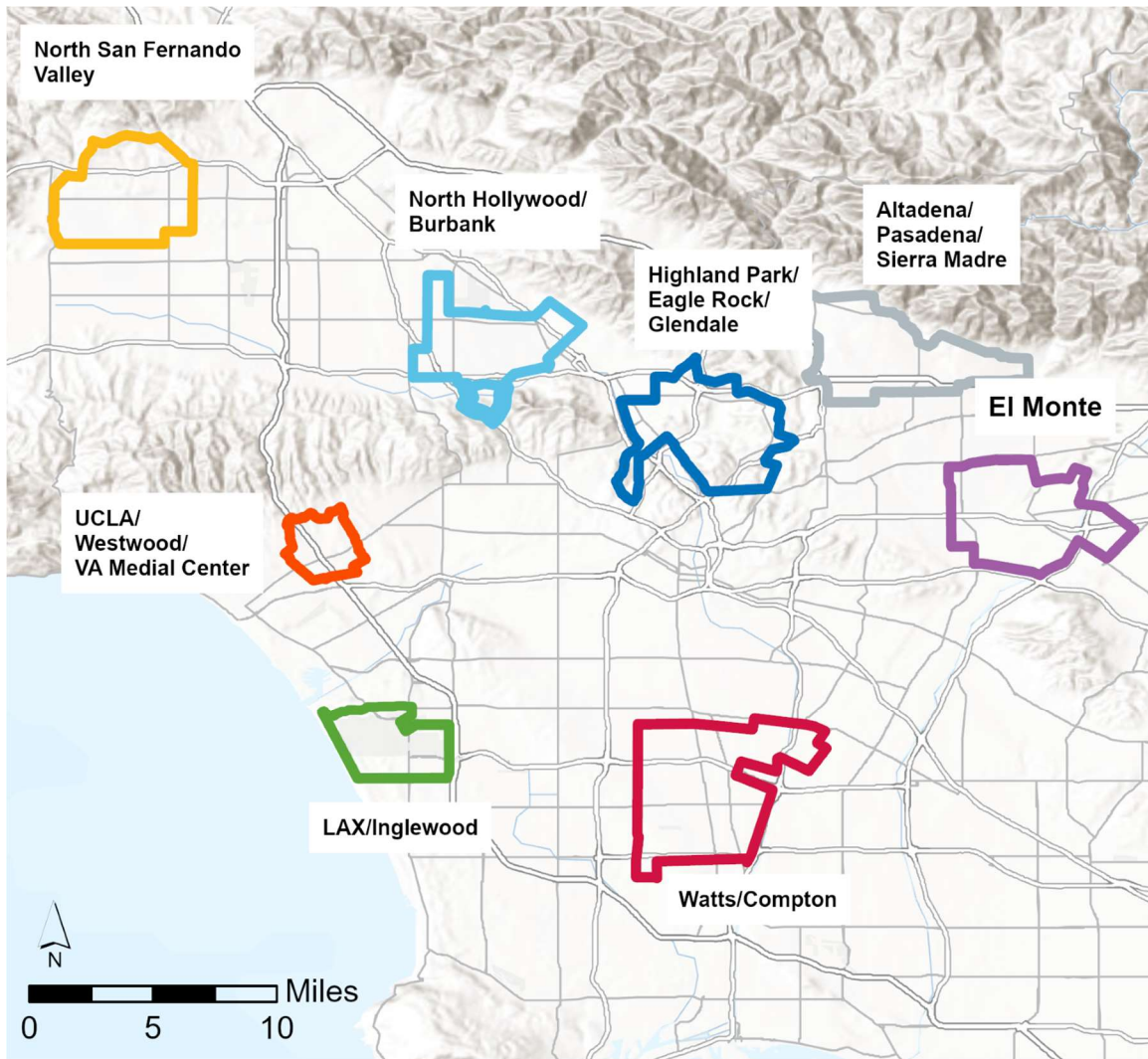


## Executive Summary

The Los Angeles Metropolitan Transportation Authority's (Metro) MicroTransit Pilot Project (MTP) is a multi-year investment to evaluate whether Metro should offer a ride hailing product for customers, and if so, how best to provide the service. The MTP was initiated within the New Mobility unit of Metro's Office of Extraordinary Innovation in 2017 and moved to Operations at the start of Pre-Revenue Service in 2019.

Metro Micro currently consists of eight Micro Zones, distributed across the greater Los Angeles region (Figure 1).

**Figure 1 Metro Micro Service Areas**



The first two Micro Zones were Watts/Willowbrook and LAX/Inglewood deployed in December 2020. Within 45 days, the Pilot was expanded to incorporate the MOD/Sandbox Pilot adding three more zones covering Compton/Artesia, El Monte, and North Hollywood/Burbank. In June 2021, Highland Park/Eagle Rock/Glendale and the Altadena/Pasadena/Sierra Madre Micro Zones were implemented, followed by the Northwest San Fernando Valley Micro Zone in September. The Compton/Artesia Zone was also merged into the existing Watts/Willowbrook Micro Zone in that same month of September. The UCLA/Westwood/VA Medical Center Micro Zone was added in December 2021 to create a total of eight Micro Zones, all deployed within one year. From a service perspective, Metro Micro has several major goals, including focusing on customer experience and ease of use, connections to the larger Metro system and local and regional operators, and providing service throughout areas with low-performing Metro bus lines ultimately removed in the NextGen systemwide bus redesign.

Metro Micro is unique among Metro’s service offerings and peer agencies in several respects. The service:

- utilized the industry’s first Pre-Development Agreement Public Private Partnership (PDA/P3) for transit service delivery;
- highlights collaboration with labor partner SMART-TD to achieve frontline workforce goals; and
- was fully implemented systemwide to become the largest employee-operated MicroTransit initiative in the country.

The unique approach to workforce development and procurement had direct impacts on testing the transit service and ridership levels. These elements, as well as the rapid expansion of Metro Micro within 12 months and the ongoing effects on transit from the COVID-19 pandemic are important to consider when evaluating the MTP’s success and impact.

### What Is MicroTransit?

MicroTransit combines technologies and operational approaches to provide flexible, on-demand transit service. Passengers using MicroTransit enjoy flexible pick-up and drop-off locations and times. Instead of using a fixed schedule and route for each driver and vehicle, customers seeking to travel within a service zone are matched with drivers using a smartphone application, phone dispatch service, and/or website.

In addition to a more flexible customer experience, MicroTransit allows transit agencies to: 1) facilitate first/last mile connections, 2) provide a more convenient and flexible service, 3) provide public transit service in areas where fixed route options are impossible or inefficient, and 4) provide a cheaper and faster alternative to paratransit service.








This evaluation of the MTP uses data from March 1, 2017 to April 30, 2023 and focuses specifically on how the service Metro Micro is operating as well as whether the MTP as a whole is successfully achieving or on path to achieve its five primary research goals. Additional research needs are identified within the Evaluation as well as considerations at this juncture for pilot continuation, completion and/or restructuring.

The MTP was designed to explore service in the context of five major motivating research questions:

- How does a large public agency operate an on-demand transit service that prioritizes customer experience and equity?
- Can new management models (e.g., positive discipline) improve workforce retention, advance career pathways, and establish workplace happiness?
- How can an innovative Pre-Development Agreement Public-Private Partnership (PDA/P3) procurement tool be leveraged and improved upon to support testing emerging technology, risk sharing, and rapid iteration in service delivery models?
- Can positive customer experiences on Metro Micro translate into increased ridership on Metro fixed-route services from current and new customers?
- Can Metro Micro perform as a cost-effective alternative to underperforming fixed-route service(s)?

This Evaluation provides an overview of MicroTransit services; 1) reviews MTP's performance according to the five research questions as well as industry standard performance metrics; and 2) provides a comparison on identified key performance indicators (KPIs) between each of the eight Metro Micro Zones.

While not an across-the-board replacement for fixed-route services, the utility and convenience of MicroTransit is evident across several key metrics for Metro Micro:

<p><b>Safety</b></p> 	<p><b>Safety is paramount in attracting and retaining customers.</b> About 96% of Spring 2022 onboard survey respondents reported feeling safe from sexual harassment; a similar percentage of customers felt safe from harassment based on their race or ethnicity and safe from crime. Only 49–55% of Metro bus customers responded positively to these survey questions.</p>
<p><b>Comfort</b></p> 	<p><b>Comfort refers to passengers’ physical sense of well-being</b> while using transit facilities. About 98% of Metro Micro customers rated the vehicle seats as comfortable, but only 59% of Metro bus customers view bus seats as comfortable.</p>
<p><b>Ride Time</b></p> 	<p><b>Travel time is a key factor in a potential customer’s decision to ride transit.</b> About 85% of Metro Micro customers are satisfied with how long it takes to get where they are going which is higher than the 56% favorable response rate from Metro bus customers.</p>
<p><b>Equity</b></p> 	<p><b>MicroTransit can bolster access to transportation for those in Equity Focused Communities (EFCs).</b> A higher share of Metro Micro rides occur in EFCs compared to overall transit activity and compared to overall personal travel activity in Micro Zones.</p>
<p><b>Usage</b></p> 	<p><b>Metro Micro experienced an initial peak of 62,000 passengers in August of 2022.</b> The 12-month weekday average across the system is about 2,000 passengers while weekend ridership averages around 1,300. There is evidence of seasonal fluctuation in ridership, with higher ridership during summer; data through 2023 is expected to support this pattern.</p>
<p><b>Finance</b></p> 	<p><b>The cost of operations per service hour on Metro Micro has declined by 61%</b> between FY21 and FY23, in part due to startup costs in FY21. Compared to similar services, Metro Micro operating costs per passenger trip are 8.3% below peer average; however, operations costs per service hour are 20% above peer average.</p>
<p><b>Costs</b></p> 	<p><b>Metro Micro’s costs per service hour are 28% lower than fixed-route buses</b> but 52% higher than ACCESS Paratransit in FY23. Reductions in wait times compared to fixed route reduced annual travel time costs for Metro Micro customers by an average of \$3.8 million per year.</p>

## Conclusion

Metro Micro was launched during a challenging time for public transit. As LA County continues to recover from the COVID-19 Pandemic, Metro Micro has matured into a well-used highly rated service with both opportunities and challenges. The service will continue to face both operational and financial barriers to meet performance goals.

## Program Successes

In many ways, Metro Micro represents a significant improvement over the fixed-route services it replaced. Key program successes include:

- **Customer Experience:** Metro Micro provides a high-quality experience that has received high customer experience ratings (averaging 4.8 out of 5 stars).
- **Wait Times And Cost Savings:** By reducing wait times for riders—by an average of 43%—Metro Micro saves riders an average of \$3.8 million per year in lost travel time costs. The greatest savings are for people making \$15,000–\$25,000/year.
- **Customer Acquisition:** Metro Micro attracts new transit customers; 11% of Metro Micro customers are entirely new transit customers.
- **Operating Costs:** Metro Micro has reduced its operating costs per Revenue Service Hour (RSH) by 61% and is now 23% less costly than the low-performing bus service it replaced at \$179 per RSH in FY20 versus \$138 per RSH.
- **Service Coverage And Access:** Nearly 350,000 additional residents are now able to access service across the eight Metro Micro Zones, providing meaningful service to 99% of residents.

## Ways to Improve

As a relatively new form of service for the agency, Metro Micro represents an operational risk. Some areas in which the initial service could be improved, especially within the context of initial goals, include:

- **Use Cases:** While Metro Micro is used as first/last mile access for the fixed route system, only about 19% of Metro Micro customers connect to other transit modes against an agency goal of 66%.



- **Productivity:** On a per-cost trip basis, Metro Micro is significantly more expensive than the replaced bus services: \$10.30 per trip in FY20 vs. \$43.56 in FY23 per trip due to the difference in service productivity.
- **Workforce Model:** While Metro Micro has provided a unique employment model for the MicroTransit industry, the program still faced substantial issues hiring and retaining operators. Though 79% of operator survey respondents report being happy at work, a large number (all but 32 respondents) recently reported looking for other work, citing both low pay and high pressure as major factors.

### Areas of Investigation

Not all results of the pilot are conclusive. As the program matures—especially through the end of 2023, continual analysis and monitoring of performance metrics will improve overall service.

- **Iteration:** Additional data collection and piloting different models will better align the number of vehicles and operators with peak demand and improve productivity, costs, and customer experience (as measured by wait time, booking/search success, and travel time).
- **Government Contracting:** Metro Micro’s procurement structure needs further evaluation to understand how this model will work for future projects and programs as agencies look to address risk and project delivery strategies.

### Opportunities for Action

Like most transit services, Metro Micro is a complex and relatively new pilot trying to achieve a range of goals and performance measures. Some initial goals—parity with per-trip costs of fixed-route service and wait times of 15 minutes or less—have not been possible with existing resources and operations. That said, Metro Micro customers have a very positive experience, may become full Metro system customers, and value the service being provided.

Potential next steps for the MTP include: 1) end MTP and discontinue MicroTransit service, or 2) continue the MTP but with operational changes.

#### Option 1 – End the MTP and discontinue MicroTransit Service

One option for the MTP is to end Metro Micro and apply lessons learned to future projects and services. However, the impacts include, but are not limited to:

- Loss of population access to transit for nearly 350,000 residents, including in EFCs Loss in first/last mile connections as currently 20% of Metro Micro customers connect to fixed transit using the new offering);
- Loss of potential new customers as 11% of Metro Micro customers are new to Metro);
- Loss of a well-liked transit service with the 4.8 out of 5 customer rating; and
- Loss of jobs/pathway for existing and new operators

### **Option 2 – Continue the MTP but with Operational Changes**

One way to partially achieve the original MTP goals and work toward achieving performance measures would be to discontinue or curtail service in some Micro Zones and concentrate as well as conserve resources in remaining Zones. Additional other steps could be taken such as:

- Raising fares from the introductory \$1 per trip;
- Shifting operating costs to capital costs (vehicle ownership, and/or as well as purchasing land for regional deployment hubs vs leasing) to reduce operating costs and improve overall financial health;
- Streamlining operating hours to support peak periods and/or use cases; and
- Structuring future contracts with better accounting for time-of-day and performance delivery to remain useful to customers and cost-effective for Metro.

Metro will need to continue to research and refine their contracting methods, if the PDA/P3 model is to achieve the intended risk transfer as envisioned for the MTP.

While it may be instinctual to continue to operate on the most productive existing Micro Zones or increasing fares, helping with demand issues and impacting search results, those changes may impact other performance measures such as transit access for those booking trips in EFCs and those utilizing Metro Micro as the service has been employed as a mitigation measure for network changes under NextGen.





## ACKNOWLEDGEMENTS



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