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EXECUTIVE MANAGEMENT COMMITTEE
JULY 20, 2023
OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
JULY 20, 2023

SUBJECT: MICROTRANSIT PILOT PROJECT EVALUATION REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the Results of the Evaluation of the MicroTransit Pilot Project.

ISSUE

The MicroTransit Pilot Project (MTP) was designed as a three-year pilot to test the delivery of a new on-demand ridesharing service model for public transit throughout Los Angeles County. 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. This report presents the findings of the evaluation of the MicroTransit Pilot Project conducted by an independent evaluator to help determine whether and under what circumstances Metro should continue with Metro MicroTransit as a permanent service.

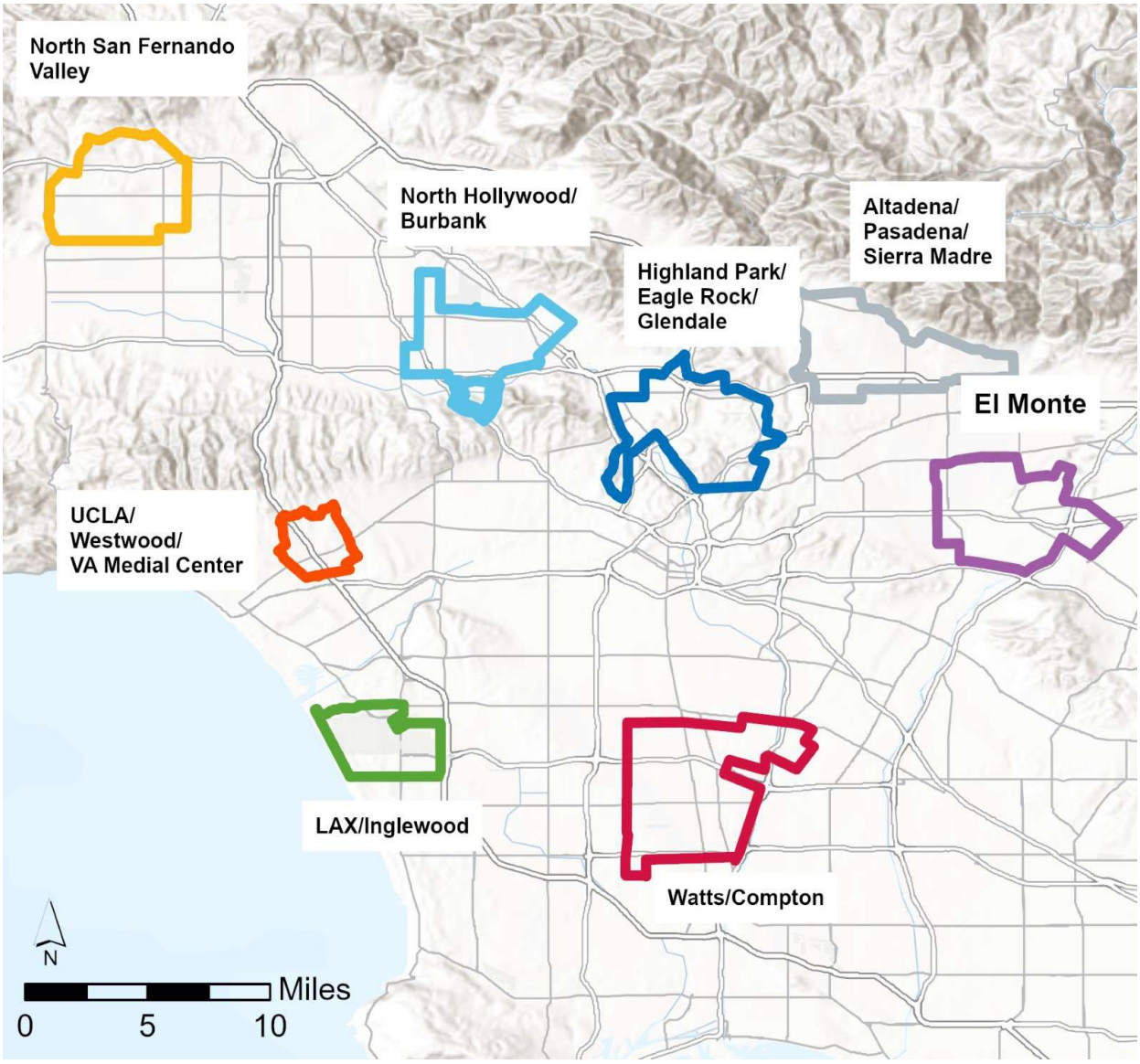
BACKGROUND

On February 27, 2020, the Metro Board approved the award to operate the MTP service. The intent of this pilot was to test the viability of a flexible on-demand service in terms of impacts on ridership, equity, accessibility (first/last mile), workforce development, and as a cost-effective alternative to underperforming fixed route services. The MTP annual cost is approximately $31M

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.

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. Today, within the eight zones, MTP provides coverage in 21 cities as well as several unincorporated Los Angeles County communities across 165 square miles.



To ensure service launch, MTP was coupled with NextGen as a key ridership initiative to drive usage by current and new customers. As such, MTP programming was synchronized and ultimately

implemented to help replace low-performing fixed route Metro bus services. As the bus network was redesigned MTP was adjusted where needed as a mitigation measure for service changes. Due to the disruptions of COVID-19 pandemic, MTP was implemented in full synchronization alongside the NextGen Bus Plan, which redesigned the bus network to improve frequency and access for Metro riders. Replacing fixed route bus services with MTP was seen as a way to resolve changes to the network and to improve transit access for residents in the areas served by these low-performing bus routes. In total, fourteen routes were partially or fully replaced by MTP as indicated by the chart below:

NextGen Replacement	Zone Name
Routes: 254 and 612	Watts/Compton
Routes: 625	LAX/Inglewood
Routes: 183 (Bel Aire Dr) and 222(Barham Bl)	North Hollywood/Burbank
Routes: 183, 201, 256 (part) and 685	Highland Park/Eagle Rock/Glendale
Routes: 256 (part), 264, 267 (part), 268 (part), 487 (part), and 687	Altadena/Pasadena/Sierra Madre
Routes: 242/243 (Porter Ranch)	Northwest San Fernando Valley

Peer Agency Operating Comparison

Attachment B, Peer Agency MicroTransit Operating Summary, details Operating Models in use by other agencies and includes information on fares, payment methods, vehicles, service areas, and hours of operation.

Based on the evaluation findings of other MicroTransit systems:

- Metro offers the lowest fare
- Metro operates the largest fleet consisting of 85 vehicles
- Metro is the only service provider that operates its MicroTransit service with in-house staff (SMART Operators and AFSCME Supervisors)

DISCUSSION

From a service perspective, MTP has several major goals, including focusing on customer experience and ease of use, improved connections to the larger Metro system and local and regional operators, address inequities in the availability and affordability of on-demand ride-hailing offered by private companies, which are often less available in communities of color and areas with lower median household incomes and providing service throughout areas with low-performing Metro bus lines ultimately removed in the NextGen systemwide bus redesign.

The evaluation analyzed MTP services, performance according to industry standard performance metrics and provided 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.

SAFETY: Safety is paramount in attracting and retaining customers. 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.

COMFORT: Comfort refers to passengers' physical sense of well-being 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.

RIDE TIME: Travel time is a key factor in a potential customer's decision to ride transit. 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.

EQUITY: MicroTransit can bolster access to transportation for those in Equity Focused Communities (EFCs). 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.

USAGE: Metro Micro experienced an initial peak of 62,000 passengers in August of 2022. 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.

FINANCE The cost of operations per service hour on Metro Micro has declined by 61% 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.

COSTS: Metro Micro's costs per service hour are 28% lower than fixed-route buses 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.

Contract Cost Analysis

The MTP was solicited as a PDA/P3 contract. The current contract was reviewed to assess how costs were structured and assigned to different categories. The purpose of this analysis was to inform operating cost structures to compare to peer agencies and to other Metro modes. The current contract covers eight cost categories: labor, communications, vehicles, reporting locations, hardware, software, insurance, and fleet cleaning/fueling. The annual cost of the contract is approximately $16M.

Although this contract is a pilot, notable features of the operating contract include:

- Labor costs for vehicle operators are not included as part of the operating costs of the contract; vehicle operators are provided directly by Metro. The annual Metro MicroTransit labor cost of SMART Operators, AFSCME Supervisors, Management and overhead is approximately $15M.

- Approximately 25% to 30% of costs in the contract are normally considered capital costs including vehicle lease payments, office and parking space costs (part of reporting location costs), as well as vehicle hardware costs (TAP machines, cameras, and other equipment).

Since many capital cost components are categorized as operating costs under the current contract, more costs are assigned to operations which erroneously results in higher operating costs for Metro MicroTransit than direct-operating costs for services. As Metro MicroTransit matures and improvements are made to the service model, Metro will correctly assign these costs in order to accurately compare costs and performance across modes.

Increasing Fixed-Route Ridership

An initial goal of the MTP was to provide a complementary service to Metro's existing fixed route network, enhancing access to bus and rail services by providing first/last mile connections to stations.

A 2023 mode shift survey shows how positive customer experience can increase ridership on fixed-route services. Preliminary survey results, indicate Metro Micro customers use Metro Micro to connect to fixed route services provided by Metro as well as by other transit agencies, growing overall public transit ridership in the region:

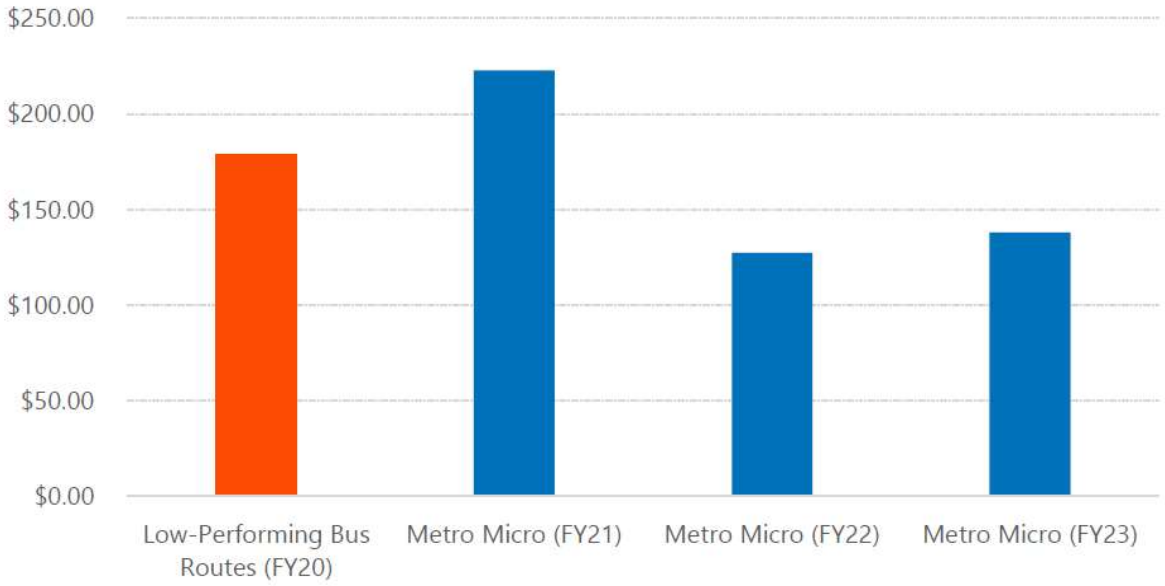
- 11% of Metro Micro customers have become entirely new transit customers who did not use Metro's other modes before the pandemic and now also use Metro's fixed-route network.
- 19% of Metro Micro customers connect to other transit modes (Metro, Metrolink, and municipal bus) as a part of their MicroTransit journey.

Metro's goal is to have 50% of Metro Micro rides link to fixed route service. Currently, 15-20% of Metro Micro customers use Metro transit as part of their journey. The low performance on this metric may be partially due to the consistently higher level of satisfaction that customers show for Metro Micro compared to Metro bus. This trend may suggest that Metro Micro customers see the service as a standalone mode rather than a way to connect to the larger service network.

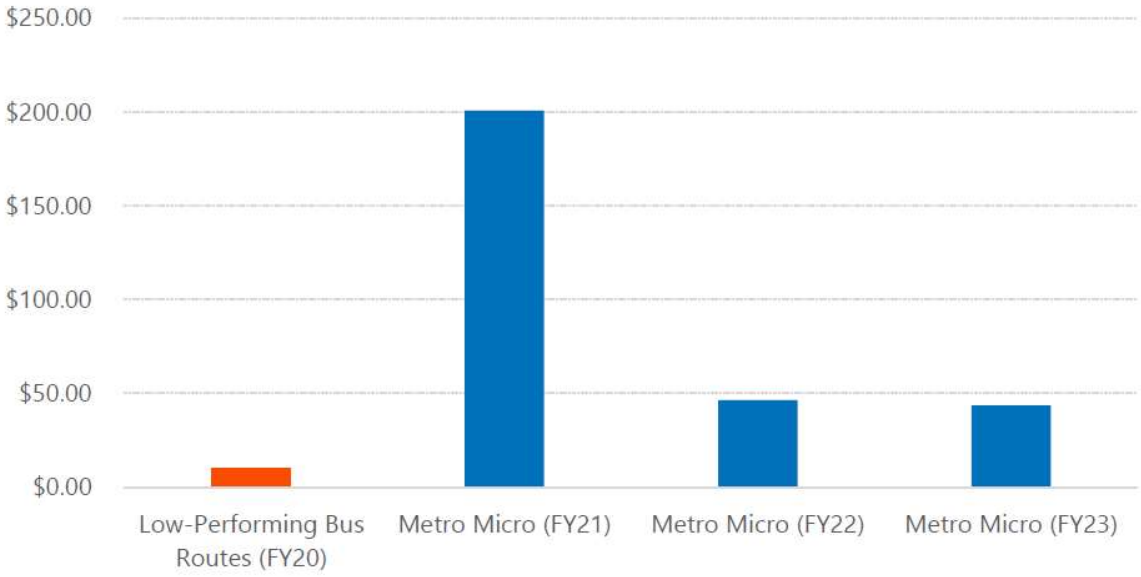
Cost-Effectiveness

On a per-hour basis, Metro MicroTransit is 28% less costly than the low-performing bus service it replaced; however, on a per-trip basis, Metro MicroTransit is significantly more expensive than the replaced bus services: about $39 per trip vs. $11 per trip. Staff anticipates that with implementation of the new business model and contracts, we can meet MicroTransit's goal of $20 to $25 per trip.

Operating Cost Per Revenue Service Hour (RSH) for Metro Micro and Low-Performing Bus Routes



Operating Costs per Trip for Metro Micro (FY21-FY23) and Low-Performing Metro Bus Routes (FY20)



The difference in vehicle capacity between fixed-route service and Metro Micro places a fundamental limit on its ability to compete with fixed-route service on productivity.

Additionally, variability within the Metro Micro fleet for vehicle capacity-ranging from three to nine passengers-means that capacity and productivity will not be consistent across all zones, further complicating Metro Micro's ability to replace fixed-route service capacity. Rolling out Electric Vehicles (EVs) within the Metro Micro fleet also limits service span for the EV-based services due to charger availability.

MTP may reduce total costs while improving accessibility and customer experience, but as an on-demand service it cannot match fixed-route services' total capacity for passengers with the same cost -competitiveness. Although Metro Micro creates benefits beyond its capacity and productivity, both factors are important to consider when comparing Metro Micro's effectiveness to that of other modes in Metro's service portfolio.

Evaluation Summary:

Metro remains committed to strategically refining the MTP program in an effort to provide options for Board consideration allowing for responsive and effective service delivery, meeting customer needs, and reducing overall operating costs. Based on the evaluation results listed in this report, Metro will continue efforts to restructure the revenue service model to achieve the goals of the program. This restructuring plan entails focusing not only on the most productive existing MicroTransit Zones and/or increasing fares, but also to ensure that program demand is balanced and does not result in negative impacts to other critical performance measures such as transit access for Equity-Focus Community (EFC) populations or the restoration of transit service lost from NextGen reduced bus service. This restructuring and analysis will also assist in determining which MicroTransit Zones should be discontinued (if any) or how to redefine the current operating hours and costs, in order to balance equity, efficiency, and effectiveness for zone change considerations.

MTP maintains many advantages compared to fixed-route bus services (shorter wait times, more direct trips for customers, etc.). 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) with no Micro Zone below 4.8 star rating. The target was 4.5 of 5 stars. The 4.8 has been maintained since service inception, through each COVID-19 pandemic surge.

- Wait Times and Cost Savings: Reductions in wait time between Metro Micro and the fixed-route services it replaced represent time cost savings for Metro Micro customers. When wait times are reduced, the customer spends less time waiting for transit service, which means more time at work, with family, and other activities. While non-labor time is valued differently than labor time, hourly wages are used as a proximate value of the "reclaimed" time that Metro Micro customers get back as a result of lower wait times. 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 verses $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.

The evaluation also considered the original five guiding MTP research questions:

1. How does a large, public agency operate an on-demand transit service that prioritizes customer experience and equity?

2. Can new management models (e.g., positive discipline) improve workforce retention, advance career pathways and establish workplace happiness?

3. 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?

4. Can positive customer experiences on Metro MicroTransit translate into increased ridership on Metro fixed-route services from current and new customers?

5. Can Metro MicroTransit perform as a cost-effective alternative to underperforming fixed-route service(s)?

Attachment A summarizes the review and findings related to these five questions.

Opportunities for Action
Like most transit services, MTP 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, MTP 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 and loss in first/last mile connections as currently 20% of Metro Micro customers connect to fixed route 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 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 steps could be taken such as:

- Incrementally Raising Fares to original planned fare of $2.50 (current MTP fares are $1 per trip as an introductory fare)
- 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 (current MTP hours of operation are generally from 5am-11pm) to address the demand for more service levels as indicated by fail search percentages.
- Structuring future contracts with better accounting for time-of-day and performance delivery to remain useful to customers and cost-effective for Metro.
- Discontinuing or curtailing service in some low-performing Metro MicroTransit zones with consideration of continued service in zones where bus lines were eliminated/reduced due to NextGen.

Factors for considering zone optimizations, reductions to realign service, and software parameters adjustments to improve cost efficiency can be seen in Attachment D.

EQUITY PLATFORM

The MTP sought to also address inequities in the availability and affordability of on-demand ride-hailing offered by private companies, which are often less available in communities of color and areas with lower median household incomes. Part of this effort included asking appropriate questions in our April/May 2023 Mode Shift Survey that examined how we can provide better availability and affordability through the MTP program.
To generate the broadest sample possible, the survey was issued through three methods: (1) an online survey, announced via email in English and Spanish; (2) an on-board survey conducted by bilingual outreach personnel; and (3) a telephone survey in English and Spanish of people booking through the Metro Call Center in September 2022 who opted-in to be contacted. A total of 2,875 Metro MicroTransit customers completed surveys. The survey was available in English and Spanish. Completion rate for English-language was 80%, Spanish-language was 78%. 95% (n=2733) of the surveys were completed in English, 5% (n=142) were completed in Spanish.

Initial survey results indicate:

- More than half of respondents identified as female (53%), 40% identified as male, 3% as non-binary, and 0.3% as other genders.
- Compared to Metro customers overall, Metro Micro users identified as Asian/Native

Hawaiian/Pacific Islander (18% vs 7% overall) and White/Caucasian (28% vs 12% overall), compared to riders identifying as Black/African American (10% vs 14% overall) or Hispanic/Latinx (40% s 58% overall).

- Compared to overall Metro customer household income, Metro Micro users identified as under $15,000 (19% vs 39% overall), $15,000-$24,999 (14% vs 23% overall), $25,000-$49,999 (19% vs 21% overall) compared to $50,000-$99,999 (16% vs 11% overall) or $100,000 or more (13% vs 6% overall).

While all Metro MicroTransit zones contain EFCs, there is a range of EFC coverage among zones:

Zone	% of Land Area in EFC	% of Population in EFC
Watts/Compton	68.0%	69.8%
El Monte	50.6%	73.3%
LAX/Inglewood	33.2%	40.3%
Highland Park / Eagle Rock / Glendale	19.3%	31.7%
North Hollywood / Burbank	19.2%	29.5%
Altadena / Pasadena / Sierra Madre	9.9%	23.7%
UCLA / Westwood / VA Medical Center	5.5%	10.6%
Northwest San Fernando Valley	3.9%	7.2%

For context, 31% of the land area of the eight Metro MicroTransit zones are in EFCs.

Metro staff continues to monitor changes to daily operations for equity related impacts.

As the MTP seeks to increase ridership and efficiency, with an eye toward reducing cost per boarding, Metro staff will be conscious of the potential impacts on equity.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The MTP supports strategic plan goals #1.2 and 2.3: Metro MicroTransit is an investment in a world-class transportation system that is reliable, convenient, and attractive to more customers for more trips. Metro MicroTransit was designed to improve customer satisfaction at customer touch points by offering an accessible, flexible service that better adapts to customer demand and needs.

NEXT STEPS

Metro staff is in the process of drafting a business model based on lessons learned that appropriately assigns risk and responsibilities to Metro and the private sector based on expertise to maximize cost efficiency, service quality, innovation, and productivity based on lessons learned during the MTP.

With that in mind, at the September Board meeting, Metro staff anticipates final recommendations about the future of MicroTransit with a potential limited time extension of the current contract. This will

afford staff the opportunity to develop new solicitation packages to be released in Fall 2023 based on the improved service model, should the Board approve service delivery of Metro MicroTransit beyond the current contract.

ATTACHMENTS

Attachment A - Evaluation of the Metro MicroTransit Pilot Project
Attachment B - Peer Agency MicroTransit Operating Summary
Attachment C - Comparison of Service Coverage and Access
Attachment D - Evaluation Findings

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ATTACHMENT A

Metro

EVALUATION OF THE Metro MicroTransit PILOT PROJECT

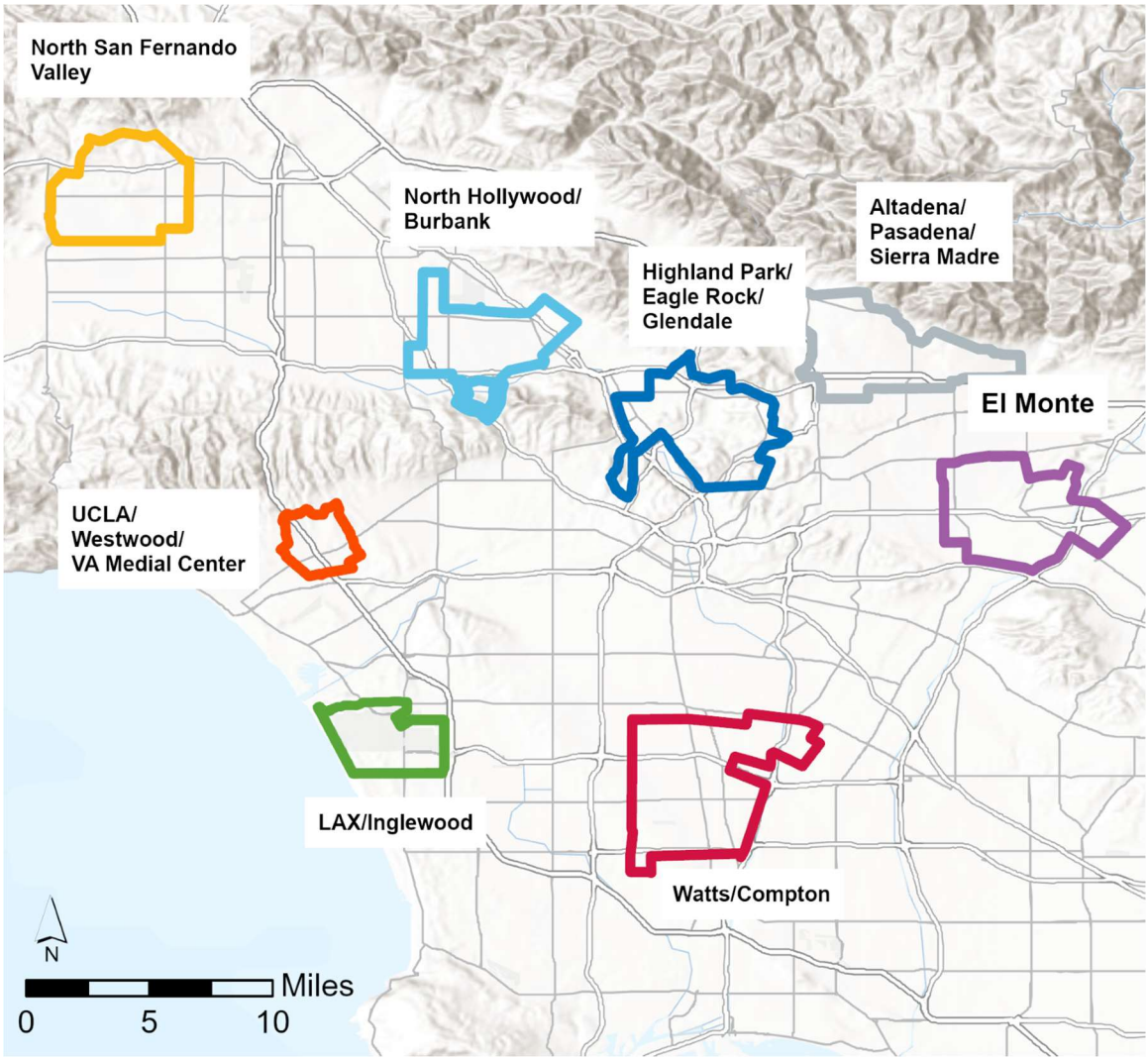
JULY 2023

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.

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.

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.

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:

Safety	**Safety is paramount in attracting and retaining customers.** 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.
Comfort	**Comfort refers to passengers' physical sense of well-being** 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.
Ride Time	**Travel time is a key factor in a potential customer's decision to ride transit.** 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.
Equity	**MicroTransit can bolster access to transportation for those in Equity Focused Communities (EFCs)**. 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.
Usage	**Metro Micro experienced an initial peak of 62,000 passengers in August of 2022.** 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.
Finance	**The cost of operations per service hour on Metro Micro has declined by 61%** 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.
Costs	**Metro Micro's costs per service hour are 28% lower than fixed-route buses** 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.

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 Acquistion:** 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 respondants report being happy at work, a large number (all but 32 respondants) 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 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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Attachment B – Peer Agency MicroTransit Operating Summary

Service	Base Fare	Payment	Fleet	Ownership	Service Area	Hours
Metro Micro (LA Metro)	$1 fare (75 cents less than normal bus fare) No reduced fare options during pilot	TAP (can be loaded with cash) Credit/debit card	Vans (Transit 150, Transit 350, Grand Caravan, Metris, Sprinter)	RideCo leases and maintains fleet Drivers are Metro contract Employees	8 zones	Varies by zone Monday-Sunday 5:30 am – 10 pm (3 zones) Monday-Friday 6 am – 10 pm, Weekends 10 am – 10 pm (2 zone) Monday-Friday 8 am – 9 pm (1 zone) Monday- Sunday 5 am – 9 pm (1 zone) Monday-Friday 5 am -11 pm, Weekend 5:30 am – 9:30 pm (1 zone)
GoLink (DART) Dallas, Texas	$2.50 per ride with a reduced fare of $1.25	Credit/debit card GoPass Tap card	Vans Uber (range of vehicle type)	Operated by DART and private Uber contractors	5 zones organized by cardinal points (i.e. Northwest, Southern) with 32 subzones	5 a.m. to midnight
GoZone (DCTA) Denton County, Texas	$1.50 for a single rider Each additional GoZone passenger is $1.50 For trips over 4 miles, the rider is charged an additional $0.50 cents per mile up to a cap of $5.00.	Cash GoZone App	50-60 Vans in operation, 20% of which are accessible vehicles	Operated by Via	3 zones	Varies by zone – Generally Monday – Thursday: 5 a.m. – 10 p.m. Friday: 5 a.m. – 11 p.m. Saturday: 5 a.m. – 11 p.m.
VIA Link (VIA) San Antonio, Texas	$1.30 per trip Regular reduced fare / service discounts apply	Via GoMobile app Cash Transit pass	Vans	Vehicles operated by zTrip, a local taxi operator Drivers are employed or contracted by RideCo and zTrip.	3 Zones paired with connecting bus routes	Every day 5:30 am – 9:30 pm

Attachment B – Peer Agency MicroTransit Operating Summary

Service	Base Fare	Payment	Fleet	Ownership	Service Area	Hours
COTA// Plus (COTA) Columbus, Ohio	$3 per ride $6 day pass/ $20 weekly pass Free for students, bus connections, c-pass members, and children $2 reduced fare for seniors	Cash COTA app COTA Smartcard C- pass Pre-purchased pass/ day pass	Vans Coach buses Accessible vehicles available 17 vehicles total	Operated by VIA	5 zones Fixed route with a separate rush hour line	5:00am to 11:00pm, seven days a week
SmaRT Ride (SacRT) Sacramento, California	$2.50 per ride Discounted fares for seniors, persons with disabilities, and students Groups of 5 or more going to the same place ride free	ZipPass app credit/debit Connect Card Cash SmaRT Ride app CANNOT be used to purchase fare	45 ADA accessible shuttle buses, (9 Zero-emission vehicles)	Operated by VIA	11 zones, downtown stop service, curb-to-curb, and corner-to-corner	Varies, Monday-Friday 6 a.m. – 10 p.m.
Metro Flex (KCM) King County, Washington	$2.75 per ride discounted fares for seniors, qualifying disabilities people under 18 ride free	ORCA card GO Ticket app Credit or debit Card on Metro Flex App	31 minivans	Operated by VIA	7 zones	Varies by zone, most limited service is 7 a.m. – 7 p.m. with no weekend service, more full service zones operator 5 a.m. – 1.am Monday – Saturday and 6 a.m. to 12 a.m. Sunday

Attachment C - Comparison of Service Coverage and Access

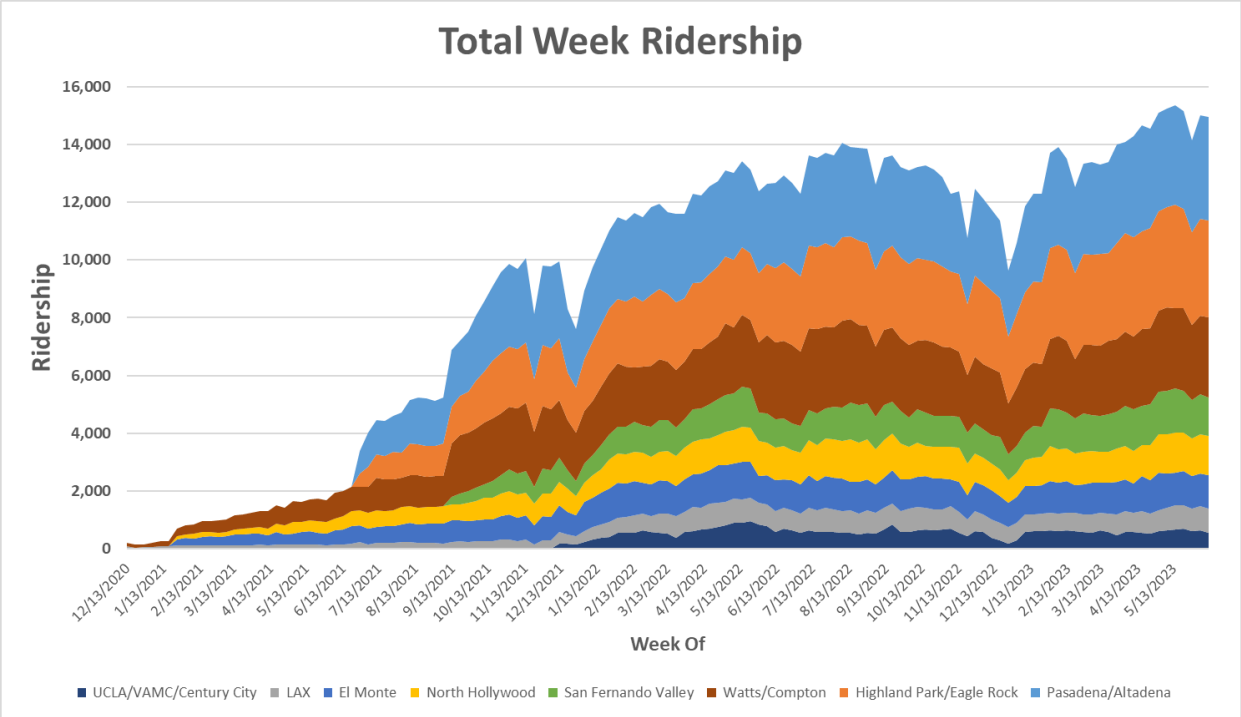
Micro Zone	Geographic Area	Population	Percent of Population with Access to Service
El Monte	Area	209,626	
	Pre NextGen Fixed Route Service Area	84,811	40.5%
	Current Fixed Route Service Area	80,151	38.2%
	Metro Micro Service Area	205,957	98.2%
Highland Park/ Eagle Rock/ Glendale	Area	247,988	
	Pre NextGen Fixed Route Service Area	206,809	83.4%
	Current Fixed Route Service Area	176,538	71.2%
	Metro Micro Service Area	246,560	99.4%
LAX/ Inglewood	Area	41,995	
	Pre NextGen Fixed Route Service Area	25,876	61.6%
	Current Fixed Route Service Area	21,052	50.1%
	Metro Micro Service Area	41,945	99.9%
Northwest San Fernando Valley	Area	193,535	
	Pre NextGen Fixed Route Service Area	173,320	89.6%
	Current Fixed Route Service Area	160,677	83.0%
	Metro Micro Service Area	193,069	99.8%
Altadena/ Pasadena/Sierra Madre	Area	169,968	
	Pre NextGen Fixed Route Service Area	142,402	83.8%
	Current Fixed Route Service Area	115,558	68.0%
	Metro Micro Service Area	168,301	99.0%
Northwest	Area	110,345	

Micro Zone	Geographic Area	Population	Percent of Population with Access to Service
San Fernando Valley	Pre NextGen Fixed Route Service Area	69,466	63.0%
	Current Fixed Route Service Area	63,769	57.8%
	Metro Micro Service Area	106,537	96.5%
UCLA/VA Medical Center	Area	112,045	
	Pre NextGen Fixed Route Service Area	82,678	73.8%
	Current Fixed Route Service Area	81,372	72.6%
	Metro Micro Service Area	112,033	100.0%
Watts/ Compton	Area	365,832	
	Pre NextGen Fixed Route Service Area	303,271	82.9%
	Current Fixed Route Service Area	281,361	76.9%
	Metro Micro Service Area	361,992	99.0%
All Metro Micro Zones	Area	1,451,334	
	Pre NextGen Fixed Route Service Area	1,088,633	75.0%
	Current Metro Bus Area	980,478	67.6%
	Metro Micro Service Area	1,436,394	99.0%

ATTACHMENT D – EVALUATION FINDINGS

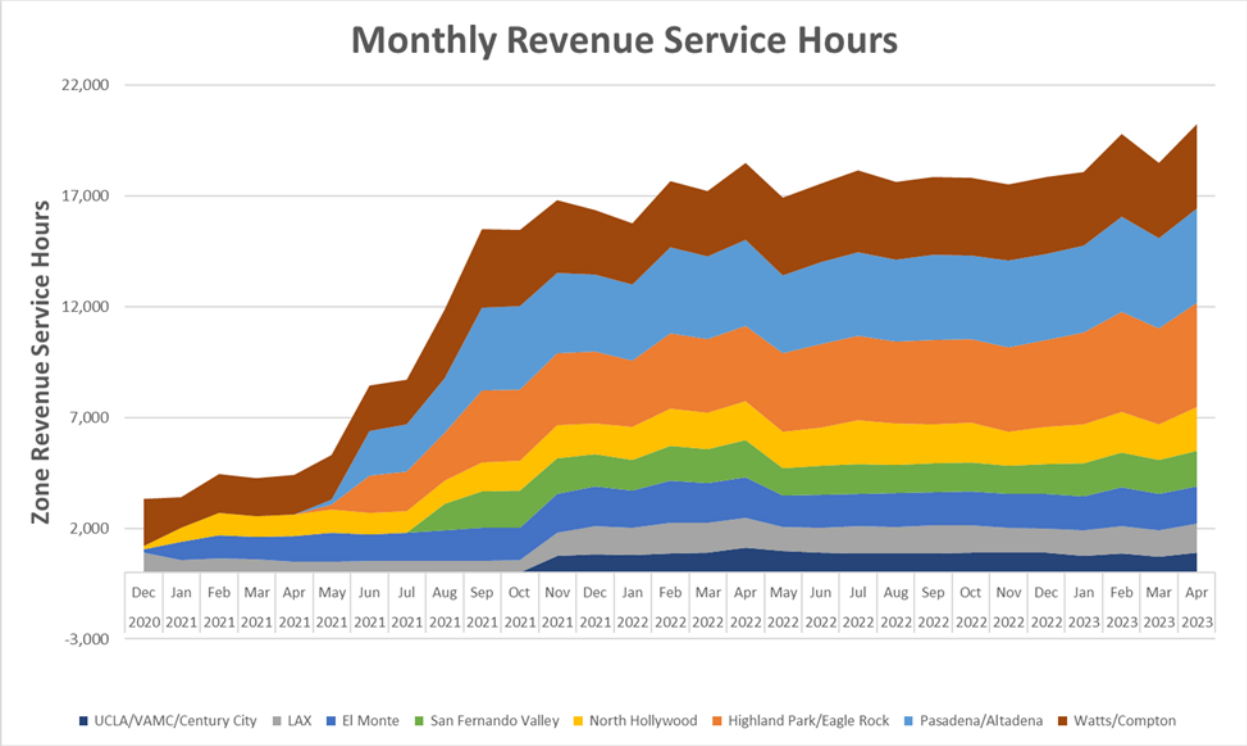
Factors for considering zone optimizations and reductions to realign service and improve cost:

1. Ridership:
   The top three highest ridership zones are Pasadena/Altadena, Highland Park/Eagle Rock and Watts/Compton. The five lowest ridership zones are UCLA, LAX, North Hollywood, North San Fernanado Valley and El Monte.

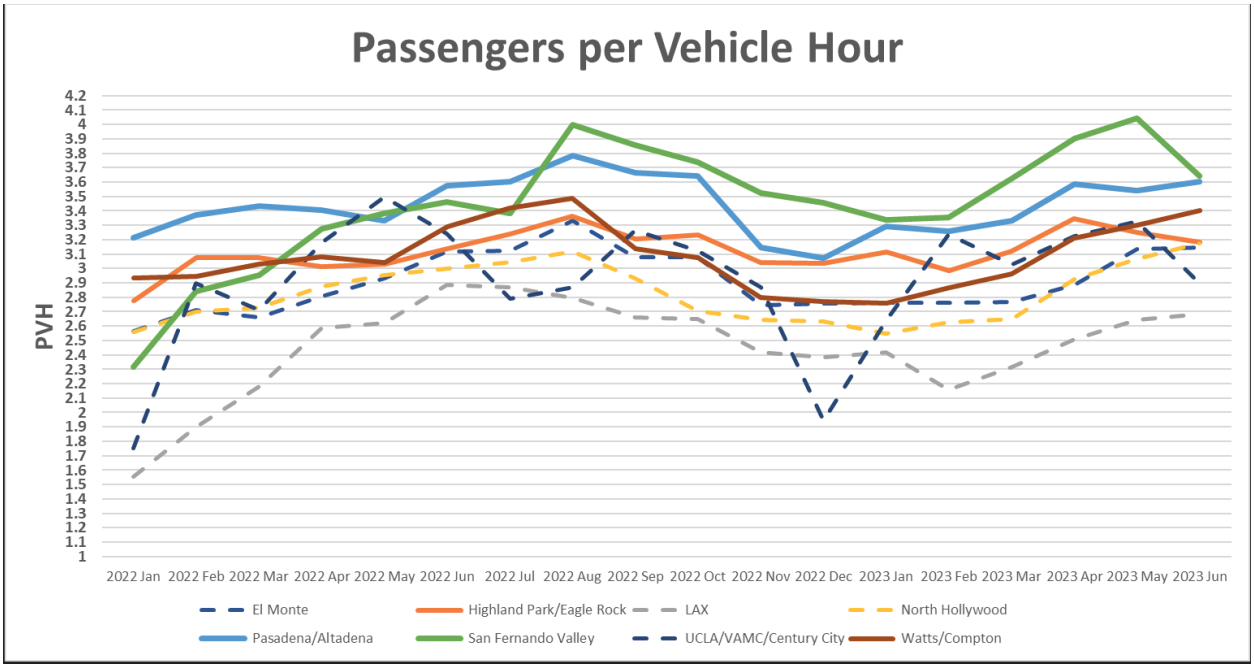


2. Revenue Service Hours (RSH):
   The top three highest revenue service hours zones are Pasadena/Altadena, Highland Park/Eagle Rock and Watts/Compton. The lowest five RSH zones are LAX, UCLA, North Hollywood, North San Fernando Valley and El Monte.

ATTACHMENT D – EVALUATION FINDINGS



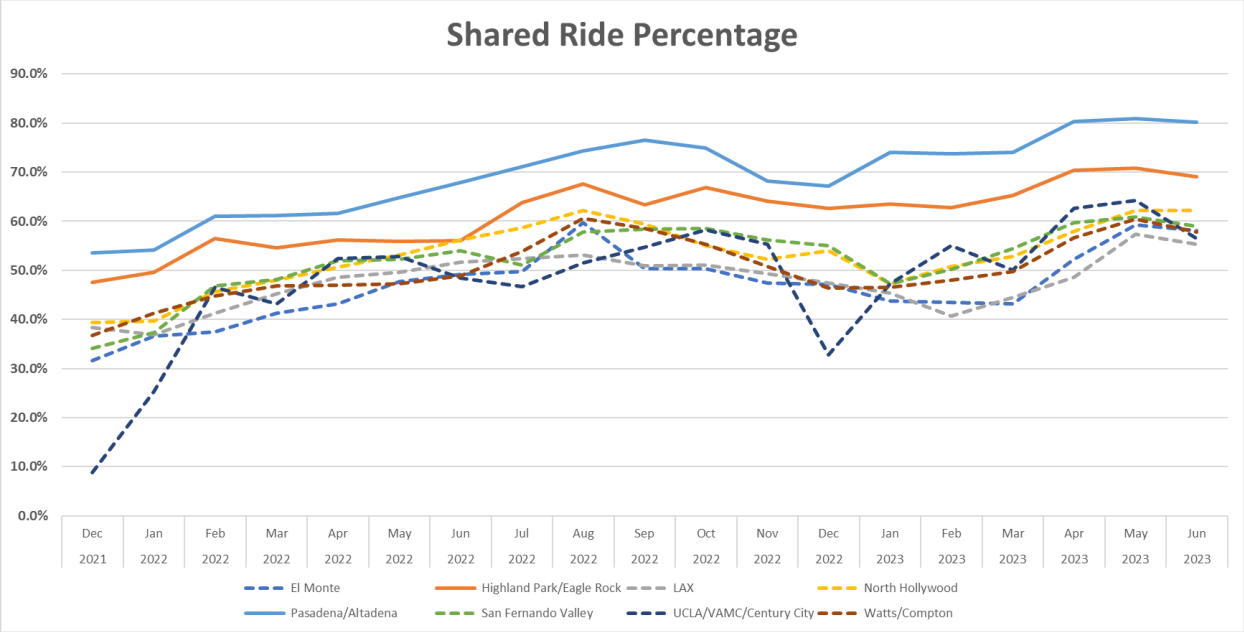
3. <u>Passengers per Vehicle Hour (PVH)</u>
The top four highest PVH zones are North San Fernando Valley, Pasadena/Altadena, Highland Park/Eagle Rock and Watts/Compton. The lowest four PVH Zones are LAX, UCLA, North San Fernando Valley and El Monte.



ATTACHMENT D – EVALUATION FINDINGS

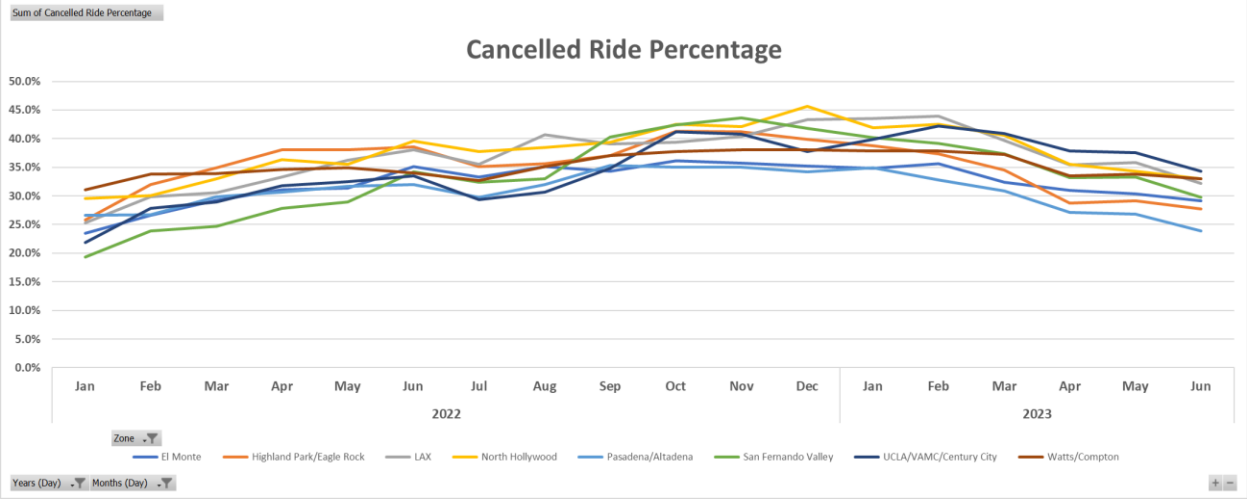
4. Shared Ride Percentages

The top two highest Shared Ride Percentage zones are Pasadena/Altadena and Highland Park/Eagle Rock. The lowest two Zones are LAX and El Monte.



Factors for considering software parameters and operation practices to improve productivity and cost efficiency:

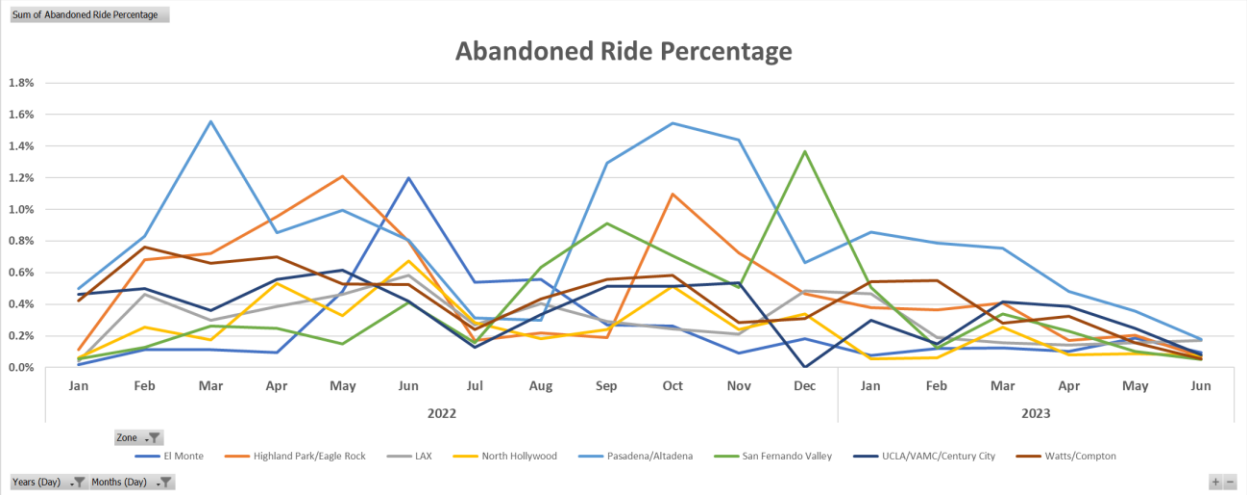
1. Cancelled Ride Percentages
   Cancelled rides are trending downward since January 2023 due to Software parameter modification to limit users who booked too many trips and cancelled at the last minute thereby limiting the ability to serve other customers.



ATTACHMENT D – EVALUATION FINDINGS

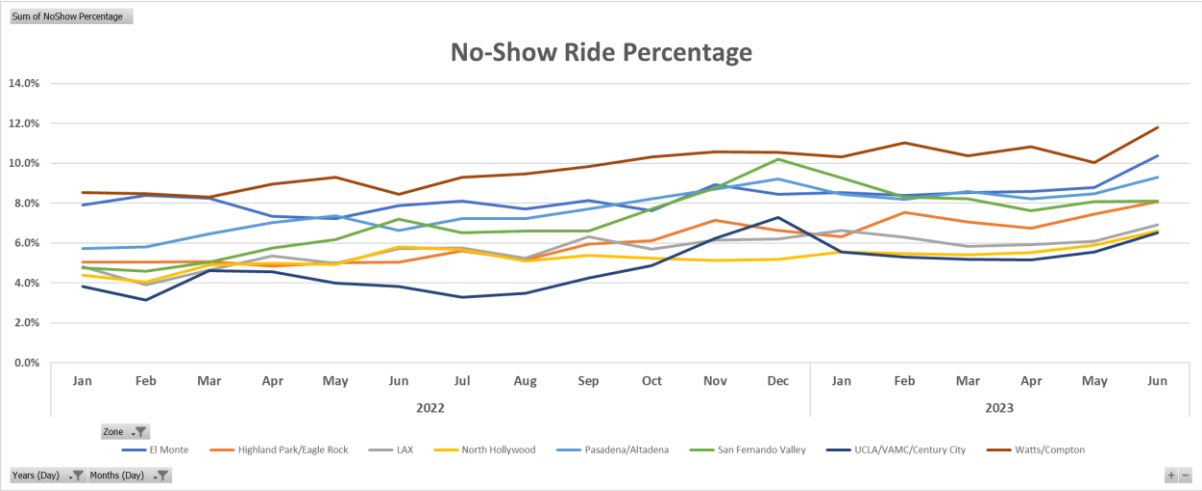
2. Abandoned Ride Percentages

Abandoned Ride percentage is trending downward since January 2023 due to both software parameter changes and improved operation practices to allow for an increase in service availability to better serve our customers.



3. No-Show Ride Percentages

No-Show Ride improvements were realized from February to April 2023 but have increased for the months of May and June 2023. Staff is monitoring the no-show percentage KPI and working on adjustments to further disincentivize system abuse by customers who book multiple rides without cancelling the unused trips.



Metro Micro™

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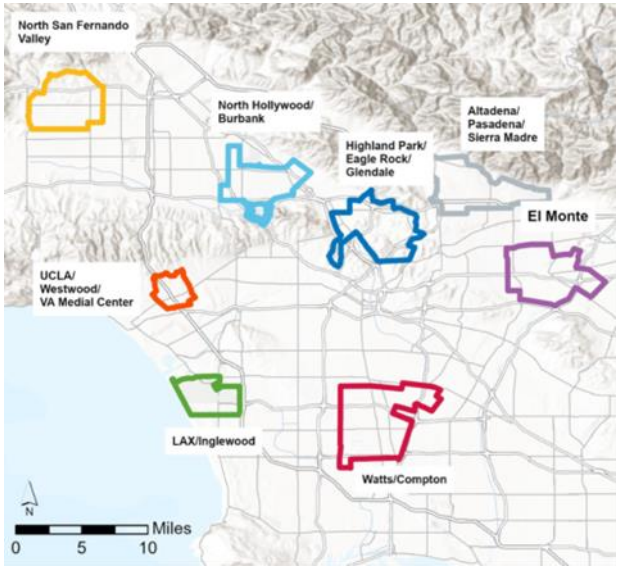
Background

- MicroTransit was evaluated by an independent evaluator to determine whether and under what circumstances Metro should continue with the service permanently.
- The current annual cost of the MTP is $31 million ($16M contract cost and $15M for SMART, AFSCME, and Management labor & Overhead).
- Using Industry best practices, the evaluation provided a comparison of Key Performance Indicators (KPIs) for each of the eight Metro Micro Zones.

Background Cont.

MicroTransit service areas/zones



Underperforming fixed route bus replacements by MicroTransit.

Launch	Zone Name	NextGen Replacement	MT Average Weekday Ridership FY23Q4
Winter 2020	Watts/Compton	Routes: 254 and 612	443
Winter 2020	LAX/Inglewood	Routes: 625	126
Winter 2021	El Monte	N/A	183
Winter 2021	North Hollywood/Burbank	Routes: 183 (Bel Aire Dr) and 222(Barham Bl)	212
Summer 2021	Highland Park/Eagle Rock/Glendale	Routes: 183, 201, 256 (part) and 685	531
Summer 2021	Altadena/Pasadena/Sierra Madre	Routes: 256 (part), 264, 267 (part), 268 (part), 487 (part), and 687	538
Fall 2021	Northwest San Fernando Valley	Routes: 242/243 (Porter Ranch)	207
Winter 2021	UCLA/Westwood/VA Medical Center	N/A	115

Evaluation Findings

SAFETY: About 96% of Spring 2022 onboard survey respondents reported feeling safe from sexual harassment compared to 49–55% of Metro bus customers.

COMFORT: About 98% of Metro Micro customers rated the vehicle seats as comfortable, but only 59% of Metro bus customers.

RIDE TIME: About 85% of Metro Micro customers are satisfied with how long it takes to get where they are going compared to 56% Metro bus customers.

EQUITY: A higher share of Metro Micro rides occur in Equity Focused Communities (EFCs) compared to overall transit and personal travel trips in Micro Zones.

USAGE: Metro Micro experienced an initial peak of 62,000 passengers in August of 2022. The 12-month weekday average across the system is about 2,000. There is evidence of seasonal fluctuation in ridership, with higher ridership during summer.

Evaluation Findings Cont.

COSTS:

- Customers save an average of $3.8 million per year by a decrease in wait time.
- Costs comparison to Peer, Metro Fixed Route and ACCESS as indicated by the chart below:

	To Peer	To ACCESS	To Metro Fixed Route
Costs Per Trip	8.3% Lower	28.8% Lower	38% Higher
Costs Per Hour	20% Higher	52% Higher	28% Lower

Peer Agency Operating Comparison (Six Agencies)

- *GoLink (DART)* - Dallas, Texas;
- *GoZone (DCTA)* - Denton County, *Texas;*
- *VIA Link (VIA)* - San Antonio, Texas;
- *COTA/Plus (COTA)* - Columbus, Ohio;
- *SmaRT Ride (SacRT)* - Sacramento, California;
- *Metro Flex (KCM)* - King County, Washington

Equity & Customer Demographics

Metro staff will be conscious of the potential impacts on equity, with an eye toward reducing cost per boarding to increase ridership and efficiency

Equity

An average of 31% of the area in the eight Metro MicroTransit zones are in EFCs as indicated below:

Zone	% of Land Area in EFC	% of Population in EFC
Watts/Compton	68.0%	69.8%
El Monte	50.6%	73.3%
LAX/Inglewood	33.2%	40.3%
Highland Park / Eagle Rock / Glendale	19.3%	31.7%
North Hollywood / Burbank	19.2%	29.5%
Altadena / Pasadena / Sierra Madre	9.9%	23.7%
UCLA / Westwood / VA Medical Center	5.5%	10.6%
Northwest San Fernando Valley	3.9%	7.2%

Demographics

In March-April 2023, 2,875 customers responded to the Online, Telephone and On-board survey conducted in English and Spanish. The results are indicated below:

	Female	Male	Non-binary	Other
Gender	53%	40%	3%	0.30%

	MicroTransit	Metro Bus/Rail
Asian/Native Hawaiian/Pacific Islander	18%	7%
White/Caucasian	28%	12%
Black/African American	10%	14%
Hispanic/Latinx	40%	58%

Evaluation Insights

Contract Cost Analysis

- The MTP was solicited as a PDA/P3 contract covering eight cost categories: labor, communications, vehicles, reporting locations, hardware, software, insurance, and fleet cleaning/fueling. The current annual cost of the contract is $16M.

- Labor costs for vehicle operators are not included as part of the operating costs of the contract; vehicle operators are provided directly by Metro. The current annual cost is $15M for SMART, AFSCME, and Management labor & Overhead.

- Approximately 25% to 30% of costs in the contract are normally considered capital costs including vehicle lease payments, office and parking space costs and vehicle hardware costs resulting in higher operating costs for Metro MicroTransit.

Evaluation Insights Cont.

Cost-Effectiveness

MTP may reduce total costs while improving accessibility and customer experience, but it cannot match fixed-route services' total capacity for passengers with the same cost-competitiveness.

- Vehicle capacity places a fundamental limit on productivity. Three to nine seats vs 38 seats on buses.
- Electric Vehicles (EVs) limits service span due to non-existing in-route charger.

Metro Micro creates better accessibility and customer experience benefits beyond its capacity and productivity, both benefit and cost factors are important to consider when comparing Metro Micro's effectiveness to other modes in Metro's service.

Staff anticipates that with implementation of the new business model and contracts, we can meet MicroTransit's goal of $20 to $25 per trip.

Evaluation Summary

MTP maintains many advantages compared to fixed-route bus services. Key program successes include:

Customer Experience: High customer experience ratings (averaging 4.8 out of 5 stars for those who ride) with no Micro Zone below 4.8-star rating.

Wait Times and Cost Savings: Customers spend less time waiting for transit service, which means more time at work, with family, and other activities. The greatest savings are for people making $15,000–$25,000/year. The annual travel time costs for Metro Micro customers by an average of $3.8 million per year.

Customer Acquisition: 11% of Metro Micro customers are entirely new transit customers.

Operating Costs: Cost per Revenue Service Hour (RSH) reduced by 61% and is now 23% less than fixed route service it replaced at $179 vs. $138.

Service Coverage and Access: Nearly 350,000 additional residents are now able to access service with less than a 0.25 mile walk, providing meaningful service to 99% of residents.

Peer Agency Comparison Results:

- Metro offers the lowest fare.
- Metro operates the largest fleet consisting of 85 vehicles.
- Metro is the only service provider that operates its MicroTransit service with in-house staff (SMART Operators and AFSCME Supervisors).

Evaluation - Options

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

The impacts include, but are not limited to:

- Loss of population access to transit for nearly 350,000 residents, including in EFCs and loss in first/last mile connections as currently 19% of Metro Micro customers connect to fixed route transit;
- 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 5 customer rating; and
- Loss of jobs/pathway for existing and new operators.

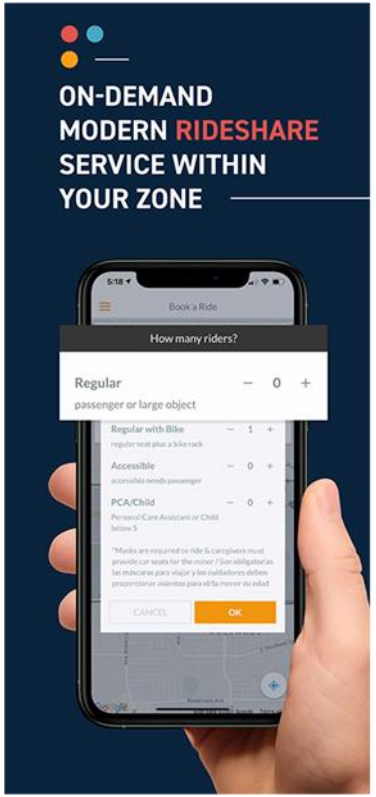
Option 2 – Continue the MTP but with Operational Changes

Steps to increase demand and manage costs may include:

- Discontinuing or curtailing service in some low-performing Metro MicroTransit zones with consideration of continued service in zones where bus lines were eliminated/reduced due to NextGen;
- Incrementally raising fares to the original fare of $2.50;
- Shifting operating costs to capital costs and improving overall financial health to sustain costs;
- Streamlining operating hours to address the demand for more service levels per fail search percentages; and
- Structuring future contracts with accounting for time-of-day and performance delivery milestones.

Next Steps

1. Staff is drafting a business model based on lessons learned to maximize cost efficiency, equity, service quality and access, innovation, and productivity.

2. Staff will request Board approval in September 2023 for a limited time extension of the existing MTP contract to develop the new business model.

3. Staff anticipates the issuance of multiple competitive solicitations beginning in Fall 2023, if the board approves continuation of the service.