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The Delicate Balance Of Microtransit Service vs. Efficiency, or Transformational Opportunity vs. Just the Latest Fad?

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WITH MANY PUBLIC TRANSIT AGENCIES seeing declining ridership in recent years, and technology advances facilitating scheduling of small-capacity vehicles, many systems are looking to microtransit to improve customer service and expand their service area. This feeds into changing customer expectations—thanks to disruptive technology across a range of industries—for everything at our fingertips, from food through DoorDash to movies on Netflix and rides via Uber and Lyft.

Microtransit holds the potential of bringing new riders to fixed routes, reaching suburban areas seeing the quickest population growth and increasing equity by providing access to groups with the most need: older riders, low-income residents and people with disabilities. Using minibuses or large vans in a fixed area would allow public transit agencies to penetrate more deeply into

neighborhoods without inconveniencing residents in the way full-size buses would. Meanwhile, the cost of these smaller, more nimble vehicles makes the service more affordable to provide and the convenience of on-demand scheduling makes it more appealing to riders than existing paratransit.

But in exploring microtransit, public transit professionals should be aware of the many factors they will need to balance. As you expand the service area, you risk increasing wait times. The more closely you try to meet customers' expectations of a personalized experience, the more your costs will rise. Basically, an agency is seeking to locate a sweet spot between a taxi service and traditional public transit. The key is to find that happy medium based on the unique characteristics of the system, customer base and local needs.

"Are you going to be fast and frequent

or are you going to give a little piece to everybody and have lower service?" asked Jameson Auten, senior vice president of operations and innovation for the Kansas City Area (MO) Transportation Authority (KCATA). "In the places where we need coverage, how do on-demand services fill those gaps?"

To maximize your agency's opportunity for success, be sure to plan carefully, communicate with your customers, launch the service aggressively enough to be noticed, expect to adapt and never take your eye from the prize, driving efficiency as microtransit gets underway, according to interviews with public transit officials across the country.

A Thoughtful Planning Process

First, assess where your riders are and where they want to go.

"The first question should always be, 'What problem are we as an agency trying to solve?'" said Chad Ballentine, vice president for demand response and innovative mobility for the Capital Metropolitan Transportation Authority (Capital Metro) in Austin, TX. "Often agencies find themselves trying to come up with innovative and new programs because of external pressures from their community, a governing board, politicians or factors other than what their customers need. Always listen to your customers and work on finding solutions to their transportation concerns."

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The RFP for Gwinnett County's full microtransit launch will include a web portal to order rides.

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In Austin, transportation network companies (TNCs), bikes and scooters compete in the downtown core, but Capital Metro excels at providing more equitable options, reaching people in lower- and middle-income areas, providing wheelchair accessibility and accepting cash. A 2017-2018 microtransit pilot conveyed riders within a lower-density, seven-square-mile zone and also brought them to transit hubs so as not to work against fixed-route service. Now the system is engaging the community and elected officials for a fully fledged microtransit rollout.

“It is important to talk with the customers we want to provide service to before we design it. We are open and honest about our goals for the service and we ask them to help spread the word,” Ballentine said.

Public transit agencies should study traffic and trip patterns and gather data to help decide optimal vehicle size, whether minibuses that carry 15-20 passengers or vans with only seven to 10 riders. Setting performance objectives ahead of time makes the service less susceptible to pressure to change features unnecessarily during the rollout. They should use surveys, simulations and real customer data to develop the parameters of a first try at microtransit.

“Figuring out your service area size is important. If it’s too big, it’s not cost-effective; if it’s too small, you won’t have enough ridership,” said Darrell Johnson, chief executive officer of the Orange County Transportation Authority (OCTA), Orange, CA. “Be clear about your objectives. If it’s just the latest fad or trend, it’s probably not a good reason. What are your outcomes? In our case, it was about replacing existing transit service that was underutilized.”

Sacramento County, CA, investigated microtransit because of the area’s size and large population—1.5 million in the county and 2.4 million in the six-county region—of which only 900,000 were served by fixed-route buses. “Sacramento County is huge; the fixed-route service can only cover certain portions of the community,” said Henry Li, general manager and chief executive officer for the Sacramento Regional Transit District (SacRT).

By launching service in the entire city of Citrus Heights and then rolling into



SacRT offers free rides to any additional riders who join a group of five traveling from the same origin to the same destination.

Kansas City Area Transportation Authority

Date service launched: Feb. 1, 2019, one-year pilot started
Number of microtransit vehicles operating: 4
Number of riders using the service: 100-105 a day
Overall ridership since launch: 9,156 passengers
Cost to the rider per trip: \$1.50

Sacramento Regional Transit District

Date service launched: February 2018
Number of microtransit vehicles operating: 15
Number of riders using the service: Average 400-500 a day
Estimated increase in agency’s overall ridership since launch of microtransit service: more than 150,000 riders total
Cost to the rider per trip: \$2.50 or \$1.25 for seniors, students and persons with disabilities

Orange County Transportation Authority

Date service launched: Oct. 15, 2018
Number of microtransit vehicles operating: 6
Average daily riders using the service: 125 on weekdays
Overall ridership since launch: 25,668 as of Aug. 3
Cost to the rider per trip: \$4.50 on app, \$5 cash (includes bus transfer)

Gwinnett County, GA

Date service launched: Sept. 17, 2018-April 30, 2019 (pilot)
Number of microtransit vehicles operating: 6
Number of riders using the service on average: 262
Overall ridership since launch: 33,376 total trips, 44,598 total passengers
Cost to the rider per trip: Free

Capital Metro

Date service launched: June 2017, one-year pilot
Number of microtransit vehicles operating: 4
Number of riders using the service: 87
Agency’s overall ridership since launch of microtransit pilot: 22,297
Cost to the rider per trip: Free

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second and third zones, the agency gathered useful data on customer demand and where they want to go. “That helped us tremendously to implement our route optimization plan,” Li said, referring to the first redesign of the entire bus network in 30 years.

Extensive Communication and Marketing

For microtransit to succeed, public transit systems must commit to significant communication and marketing efforts, as well as strategic branding and partnerships to spread the word about the new service. The more quickly customers try out microtransit, the better data agencies will receive sooner about how well it’s working.

Karen Winger, transit director for Gwinnett County in suburban Atlanta, knew that microtransit has to deploy with the technology already in place so riders don’t have to learn two systems in a short time span. She explained that the South doesn’t enjoy a culture of public transit the way the Northeast does, so customer education is key.

“We can’t keep making the roads wider,” said Winger, who often carries bus tickets in her handbag to give to potential riders. Once they try the bus or microtransit, they switch, so agencies should do whatever they can to facilitate that first step, she advised.

Free microtransit service launched across a 17-square-mile area in the county in September 2018 in a zone with no public transit options and

potential destinations including a senior center, farmer’s market, town hall, hospital, long-term care facilities, extended-stay hotels, two high schools and a middle school—whose students wrote Winger every year asking for transit options. “It hit a lot of the boxes you’d check for transportation-dependent,” she said.

The county is administering the service through third-party vendor TransLoc.

A partnership with the city of Snellville, east of Atlanta, raised awareness of microtransit, as did discussion of the pilot during an ongoing referendum for increased public transit funding. The Exceptional Foundation, which helps support young adults who have developmental delays, became advocates for the service, especially the voice-to-text option, which facilitated group trips, grocery store expeditions and work commuting, Winger said.

In Austin, Capital Metro also offered free rides during the pilot and taught people how to use the microtransit app. “When it came to seniors and people with disabilities, there was a bit of a learning curve. We went to a few of the senior facilities and taught a few influencers,” Ballentine said. “They started becoming the ambassadors, teaching others.”

Similarly, KCATA officials held RideKC events at libraries, apartment complexes and even staffed a table at college orientation, offering free coupons for students. “We had a lot of boots on

the ground,” said Lisa Womack, regional mobility and contracted services/para-transit manager.

“You have to do a really good job on the marketing end, making sure people know what [your service] is, when it runs,” Auten said. “Make sure you get early champions to drive the service. [KCATA had] a comprehensive marketing plan on the front end and a soft launch that allowed a continued excitement to build.”

Go Big in a Small Area

When launching microtransit, it’s better to saturate the small first area than to provide bad or limited service that turns off riders, officials said. For example, when Capital Metro started Pickup service, it operated just a few days a week, which confused customers.

“When people had to think about ‘is it running now or not?’ it was a deterrent,” Ballentine said. “We went to every day of the week except Sunday. You have to commit and jump in with a lot of service.”

Capital Metro initially asked existing staff to take on the pilot, but eventually brought on temporary staff and a temp project manager to ensure its success.

Similarly, the RideKC pilot launched with limited hours for the morning and evening commutes and only carried customers from the outer edges of the service area toward downtown in the morning, with the reverse in the afternoon. This confused customers, as did the fact that the line operated in a small service corridor that required riders to walk to central meeting points.

“Now it’s curb-to-curb, 6 a.m. to 8 p.m.,” Womack said. “We’re capturing all kinds of shifts, people going to classes, people who want to run errands.”

By contrast, Sacramento launched service weekdays, 7 a.m.–7 p.m., in a limited service area. SacRT saw that Citrus Heights held strong potential to bring new customers to public transit while building on an existing rider base. After adding two more zones, the county has seen a total of more than 150,000 microtransit riders since Feb. 12, 2018, Li said.

“We need to rally the community to make sure we get all the support from all stakeholders. That is something so



OCTA’s microtransit pilot launched in two zones, one with a commuter rail station and one without.

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important,” he said. “You have to provide the most safe, secure, convenient, reliable services to the customers so they will trust you.”

Be Ready to Adapt

No matter how much planning, modeling, advance customer surveys and simulation a public transit system may do, nothing compares to the real-world experience of launching microtransit service. Most agencies begin with a pilot, knowing that those first six or 12 months will provide valuable information about what actually works for customers and the region. So, prepare to tweak services, be flexible and jettison plans that don't work in reality.

“Don't be afraid to fail. If we knew how to do this, it wouldn't be a pilot program,” said OCTA's Johnson. “I told our team, ‘If something's not working right, let's talk about it and figure out what to do to make it work better.’”

OCTA learned that microtransit riders were not transit-dependent and their trips were often elective, such as shopping, rather than to work or school. They changed the wait time at transit hubs from about two minutes to five minutes to increase the number of shared rides. The agency also fine-tuned the payment system, which initially required riders to use their card's saved value rather than paying cash.

“We had to work with the vendor to fix that. Those are nuanced things that you find out,” said Johnny Dunning, department manager of scheduling and customer advocacy. “The whole point of this pilot is to have all the questions answered, to see if there are changes in the parameters you can make.”

In Kansas City, public transit officials didn't know whether microtransit usage



Since launching service in February 2019, 85 percent of Kansas City microtransit trips are booked with an app.

would mimic TNCs, which are cashless and rely entirely on an app to fulfill requests for rides, or look more like paratransit, with a call center scheduling rides for the next day. Since launching service in February, 85 percent of trips are booked on the app, compared with 70 percent in paratransit, Womack said. “The rest is evenly divided between phone and the online portal, with a few walkups. The difference between those two programs in technology is dramatic.”

Similarly, Gwinnett County found that senior centers and doctor's offices wanted a web portal to order rides, which the pilot didn't support. The RFP for a full microtransit launch will include that portal, as well as other features that came up in the pilot or a customer survey.

“We didn't over-plan it,” Winger said. “With some of these innovative mobilities, you just have to go. If you spend three years planning, the technology will change three times.”

Driving Efficiency

For microtransit to reach a point of sustainability, public transit agencies need to continually push productivity barriers—to find ways to reduce costs and increase efficiency. While it will never become as affordable as traditional public transit, these first few forays into a new service will help create the benchmark for metrics such as riders per revenue hour, average wait time, per-passenger subsidy and more.

To encourage group rides, SacRT offers free rides to any additional riders who join a group of five traveling from the same origin to the same destination point. Officials invite senior centers and community centers to facilitate ridesharing, hoping to achieve 10 passengers per revenue hour. The ultimate goal: to provide convenient service, with low wait times, to as many people as possible for as small a cost as possible.

“Productivity is the key for the future,” Li said. “Demand has been continuing to surge. Eventually we will evolve into a mix of microtransit and a fixed route.”

Microtransit isn't practical for every region because of the higher-than-typical cost, so agencies should be strategic in defining zones where the new service can shine.

OCTA identified seven areas of about five square miles each “that are on the edge of good transit service but not well suited for traditional fixed-route bus service,” Johnson said. “How can we harness technology that's been perfected by the private sector and use that to our advantage?”

The agency's pilot launched in two



Following a year-long pilot program, Capital Metro is engaging stakeholders for a fully fledged microtransit rollout.

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zones, one with a commuter rail station and one without, to see the difference. Its initial goals were: 25 percent of trips connecting to other transit, 85 percent customer satisfaction, 25 percent of bookings shared, six rides per revenue vehicle hour and a \$9 subsidy per boarding. They've met the first two, are close on the third and trending in the right direction on the last two.

"When we get that in the right space, we will see our subsidy falling," Johnson said. "It's not a scalable service; it's more of a site-specific service. A best practice we talk about internally is sticking to this idea that it has to be a geographically dense area. Resist the urge that it has to be everything to everyone."

Capital Metro found efficiency by operating the Pickup program (microtransit) through the agency's paratransit

service provider for passengers with disabilities.

"This allows us to use well-trained vehicle operators who are accustomed to following a dynamically changing manifest and servicing new locations every day," Ballentine said. "An additional benefit is the ability to move our vehicle operators between providing Pickup service and ADA paratransit service on the fly. They simply log out of the paratransit app and log into the Pickup app when instructed by dispatch. This means we can share resources throughout the day to better gain efficiencies on both services."

Customers seem to prefer the convenience of Pickup, with on-demand scheduling and the same door-to-door service, he said.

As exciting as microtransit is with its potential to rejuvenate ridership and

harness new technology, the service follows in the footsteps of past innovations by the nation's public transit agencies.

"Mobility on demand, that's been the thrust across the industry. It's what everyone wants to look at and evaluate: is this viable? Can it be a long-term model of service delivery?" asked OCTA's Dunning. "Let's be transformational... keep transit at the forefront of the conversation and make transit a continued mobility agent."

Katherine Lewis is an award-winning independent journalist based in the Washington DC area. Her work has been published in the *Atlantic*, *Bloomberg Businessweek*, *Fortune*, the *New York Times* and the *Washington Post*.