

## Designing a Microtransit Program in Rural Massachusetts

### The Problem

**B**ETWEEN 2017 AND 2020, SEVERAL REGIONAL STUDIES WERE conducted to assess transportation needs in semi-rural Berkshire County, Massachusetts, the state's westernmost area. Two clear trends emerged: low-wage workers needed more and better access county-wide to get to and from jobs; and demand-response transit (DRT) options were needed in selected areas to improve mobility for seniors and others not served by fixed-route service.

At the time, the Berkshire Regional Transit Authority (BRTA) operated 13 fixed-route bus lines Monday through Saturday, with no evening service. This was the backbone of a transit system serving approximately 125,000 residents in 32 towns, spread out across approximately 950 square miles—more than half the size of Rhode Island. There was no existing DRT service—only taxicabs serving the most populated areas of the county.

### Designing a Contained Pilot Program

An enterprising college student, Tate Coleman, who was interning with the Berkshire Regional Planning Commission in 2021, helped devise a microtransit

planning study (leading to a pilot program) to assess the feasibility of integrating DRT service as a feeder to fixed-route bus lines as well as existing paratransit service.

With input from a robust residential survey, Coleman's study set out to determine the feasibility of integrating DRT services for the general public into existing paratransit (complementary ADA and non-ADA) and Council on Aging services (which already had riders and vehicles), and to outline potential zones for a focused DRT pilot.

"The goal for a microtransit program," Coleman said, "is not to do everything. It's to serve the core areas that are not on the main corridor."



To that end, three towns in a 25-mile area where residents had expressed high interest in more service were selected for the pilot. Fixed-route service was under-performing in these areas because riders were spread out geographically. Picking up one passenger in one village in Stockbridge might impose a 10-minute route deviation along the fixed-route BRT system. That, said Coleman, made this an "ideal area" for microtransit service.

The microtransit pilot program launched in May 2023, expanded to a few other towns, and then transitioned to a full program in November 2023, slated to receive FTA 5310 and state funding in fiscal year 2025.

## New DRT Service Unleashed Demand

The pilot program, though not without hiccups (e.g., hiring shortages and software glitches), was successful from the start. Demand from existing seniors for the app-based call-on-demand service exploded between 9 am and 2 pm as fares were lowered relative to fixed-route service and same-day transportation became a reality. Rides had to be capped at 1,200 per month in the fall of 2023. With Sunday and evening service now built in, a quarter of current ridership is workforce-related.

“The mindboggling part of this is we have so many rides we can’t fill every day because we have so much demand,” Coleman said. “Before our service began, what were these people doing?”

## Success Informed by Research

Nearly every facet of the Berkshire Microtransit Planning Study—the

backbone of the pilot and full program—was informed by case studies, data, and strategies contained in a handful of TCRP reports. For example, an analysis of variations in DRT models, as described in **TCRP Synthesis 76: Integration of Paratransit and Fixed-Route Transit Services (2008)**, helped Coleman and the team to identify the hallmarks of a “true” microtransit model, which, the report notes, consists of real-time trip requests characterized by the reality of “point deviators”—on-call service using a set of points, or “virtual bus stops,” in a specific zone, with no pre-defined route between the points.

**TCRP Synthesis 141: Microtransit or General Public Demand-Response Transit Services (2019)** was especially influential in helping to shape factors ranging from ridership equity to fare structures.

For example, Coleman determined that the pilot program should expand from serving seniors to include workforce riders based in part on this report’s stance that

“lower cost general public DRT could be the most cost-effective way to provide some level of mobility,” including access to jobs, education, and social services, especially “in newly developed areas not yet served by transit.”

The report demonstrates several ways in which microtransit’s flexibility is a good fit for large, rural counties like Berkshire—bolstering Coleman’s case for DRT solutions. For example, when ADA-eligible customers lose access to paratransit in the wake of fixed-route service cutbacks, microtransit’s point-deviation structure can serve them—and expand to others in the process.

On technical matters, **Synthesis 141** delivered information that Coleman designed into the pilot, including the breakdown of “paradigms of service,” such as many-to-many, many-to-few, and other permutations.

As the pilot program matured into a full-scale DRT service, Coleman has adopted other ideas from this report, including adding at-stop signage at some BRTA stops.

One big takeaway for Coleman, now the director of the county’s new microtransit program, is that “You don’t know what pent-up demand looks like until you offer service.”



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