Mobility on Demand Study

Space Coast Area Transit

Literature Review

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Table of Contents

List of Tables

Introduction

Space Coast Area Transit, the transit service provider for Brevard County, currently operates 23 fixed routes serving just over 1,100 stops across the County. Space Coast Area Transit also provides special services, including the Vanpool Program with Enterprise, Volunteers In Motion (VIM), Request VIM Services, Transportation Disadvantaged (TD) Paratransit Services, and Americans With Disability Act (ADA) Paratransit. The agency is looking to expand from traditional fixed-route service and has initiated the Mobility on Demand (MOD) Study in coordination with the Space Coast Transportation Planning Organization (Space Coast TPO) to explore potential MOD alternatives in areas of Brevard County.

The U.S. Department of Transportation (USDOT) defines MOD as "a safe, reliable, and carefree mobility ecosystem that supports complete trips for all, both personalized mobility and goods delivery." MOD seeks to provide travelers with mobility choices that are user-centric, mode-neutral, technology-enabled, and partnership-driven.[1]

The MOD Study will create a framework for Space Coast Area Transit to identify and assess MOD and select a preferred alternative in alignment with the agency's vision. As an initial step in this Study, this memorandum reviews best practices in the emerging practice of MOD. This memorandum also serves as a primer for study team members and interested stakeholders who are unfamiliar with MOD.

Ongoing Studies

The MOD Study is being developed in coordination with several ongoing regional studies. Space Coast Area Transit and the Space Coast TPO are currently working on the 2035 Transit Development Plan (TDP) as part of the 2050 Long Range Transportation Plan (LRTP) update for Brevard County. The TDP reviews existing service and identifies future mobility needs across the County.

Space Coast Area Transit serves a critical role in moving Brevard County residents and visitors. The TDP's ridership survey found that home, work, and shopping from respondents' top origins and destinations. Respondents' top reasons for riding transit included no current access to a vehicle (44%), do not drive (32%), and preferred transit to other options (22%). These answers emphasize the key role transit plays in providing mobility across Brevard County. Additional survey questions that help to identify gaps in service MOD may be beneficial.

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[1] U.S. Department of Transportation. 2020. *Mobility on Demand (MOD) Program.* Publication FHWA-JPO-20-830. Intelligent Transportation Systems Joint Program Office, Washington, D.C. https://www.its.dot.gov/factsheets/pdf/MobilityonDemand.pdf

The Space Coast TPO is also working on the Intermodal Station Feasibility Study, which is identifying and analyzing intermodal connections for an identified passenger rail station. The study aims to understand potential ridership, identify the station footprint, and identify surrounding infrastructure improvements. MOD can complement passenger rail service by providing first-mile/last-mile connections to and from the station.

Literature Review

The remainder of this memorandum provides an overview of MOD and describes best practices by peer transit providers that are already implementing it.

How MOD Works

MOD leverages partnerships between different mobility providers to provide a range of mobility options to serve a variety of users and individual travel needs for a given trip. These options can include a variety of shared-use transportation services, including but not limited to:

- Traditional fixed-route and demand-responsive (paratransit) public transit;
- Taxis and limousines;
- Ridesourcing or Transportation Network Companies (TNC) (e.g., Uber, Lyft);
- Carsharing programs;
- Technology-enabled microtransit services such as autonomous vehicles (AV);
- Bike- and scooter-sharing (i.e., micromobility);
- Shuttle services; and
- Neighborhood shuttles.

The “on-demand” portion of MOD indicates that the user can travel when they need to, rather than reserving a service hours or days in advance or waiting for a scheduled departure time. This capability is enabled through technology that identifies the available travel options, allows users to select or order the service(s) that work best for their trip at the time they want to travel, and coordinates payment.

Technology-enabled shared-use mobility (SUM) is much more prominent in urban areas; however, there is great potential to fill mobility gaps in rural communities with SUM. Providers such as Via Transportation have been offering dynamic and on-demand pooled transportation services using vans in both larger urban areas and smaller communities.

Microtransit is defined by FHWA as a privately owned and operated shared transportation system that can offer fixed routes and schedules, as well as flexible routes and on-demand scheduling typically using vans and buses. Microtransit is often offered by private-sector transportation providers such as Via, Bridj, Circuit, Split, and Chariot. Passengers typically request rides using a smartphone app. These apps often coordinate one passenger's ride request with other passengers' requests to optimize vehicle routes to serve the greatest amount of people as efficiently as possible, while minimizing wait times for a ride. Agencies typically offer a phone number or SMS-based messaging option for passengers without a smart phone to request rides. Private-sector microtransit providers tend to operate more in densely populated areas to maximize revenue given their profit-driven business models.[2] However, the technology that makes microtransit service possible is now available to public transit agencies, which makes it possible for a growing number of public transit agencies to provide microtransit with their own vehicles and personnel.

The National Center for Applied Transit Technology describes microtransit as including the following components:[3]

- **App-Based.** A primary feature of microtransit is requesting trips and paying for service via a mobile application. Some service providers also provide a call-in option and/or prepaid or cash options for users without smartphones or who have difficulty using smartphones.
- **On-Demand.** A defining feature of microtransit is that it is delivered on demand. Similar to Uber or Lyft, customers request their ride when they need it, not hours or days in advance.
- **At the Door or at the Corner.** Microtransit can operate corner-to-corner (pick-ups and drop-offs at an intersection close to a passenger's origin and destination), curb-to-curb, door-to-bus-stop, or door-to-door. It all depends on the target user group, community context, and trip types.
- **Over-and-Above ADA.** Microtransit is typically a complement to the demand-response service (ADA paratransit or "dial-a-ride") required by the Americans with Disabilities Act in areas served by fixed public transit routes, rather than being a replacement. This aspect allows for more flexibility in how service is provided.
- **Premium Service, Premium Fare**: Because the service is more customized to users' individual transit needs and provides a more convenient travel experience, agencies typically charge a higher fare for microtransit than for regular fixed route or paratransit.
- **Contracted or In-House**: Service may be contracted out to turnkey operators, or vehicles can be retrofitted to address ADA requirements and put into microtransit service.

[2] National Academies of Sciences, Engineering, and Medicine. 2019. *Microtransit or General Public Demand Response Transit Services: State of the Practice.* Washington, DC: The National Academies Press. https://doi.org/10.17226/25414.
[3] National Center for Applied Transit. (2022, May 24). *Microtransit: What is it and Why is it Used?* Retrieved from https://n-catt.org/guidebooks/microtransit-what-is-it-and-why-use-it-factsheet/

In contrast to ADA paratransit, which provides rides within a transit agency's fixed-route service area during the same hours that fixed-route service is provided, microtransit tends to serve smaller areas to use the vehicles and drivers more efficiently. Longer trips can be served by transferring to or from fixed public transit routes that serve larger numbers of people traveling in the same general direction at the same general time.

Use Cases

Microtransit, demand-response service for the general public (e.g., "dial-a-ride"), and ADA paratransit serve different functions. **Table 1** compares typical functions, vehicles, service areas, customer interfaces, and time to schedule for microtransit, dial-a-ride, and paratransit services.

Table 1: Service Types and Functions

Characteristics	Microtransit	Dial-a-Ride	ADA Paratransit
Typical Functions	Corner-to-corner travel within a zone, designed to serve more than one passenger at a time	Curb-to-curb or door-to-door service in areas where land-use density is too low for fixed-route service	Door-to door service for customers unable to use the fixed-route network due to disability or other ADA considerations
Typical Vehicles	Minivans or Shuttle (8–12 passengers)	Shuttle (8–12 passengers)	Shuttle (8–12 passengers)
Typical Service Areas	Neighborhood or multiple neighborhoods	County- or district-wide	Within ¾ mile of the fixed-route system
Typical Customer Interface	Smartphone app	Phone or online	Phone or online
Typical Time to Schedule	Real-time, 5- to 20-minute wait	1–2 days	Day before travel

Source: Shared Mobility Definitions[4]

Microtransit can be used to transport riders for non-emergency medical purposes, to serve geographic regions with limited or no public transit service, and to substitute for fixed-route public transit in smaller urban areas. Non-emergency medical transportation can be used by

[4] Federal Transit Administration. "Shared Mobility Definitions. Shared Mobility Definitions" FTA. Accessed on January 10, https://www.transit.dot.gov/regulations-and-guidance/shared-mobility-definitions

eligible riders to book medical trips for a specific time and allows on-demand return trips. Furthermore, microtransit can provide service in areas with limited or no fixed-route service at certain times of the day or week, allowing transit agencies to maintain service to lower-demand locations and times, and to provide service when there may be staffing or driver concerns related to the extension of fixed-route service. Finally, if a transit agency serves an area, such as a small town, using fixed routes at long headways, switching to microtransit can provide an opportunity for the agency to expand the coverage area and reduce wait times for riders.

The option for turnkey operations allows transit agencies to utilize contractors that provide all aspects of the microtransit service, including vehicles, information technology services, operations management, drivers, etc.

Relationship to Traditional Public Transit

Shared modes largely complement public transit and enhance urban mobility. While some routes and times of day may result in competition between shared modes and transit service, typically ridesourcing services have been found to be used for social trips at night during times when transit is infrequent or unavailable. Survey respondents that utilized shared modes were also associated with using transit frequently, owning fewer cars, and reducing transportation spending.[5] Public and private partnerships are encouraged to complement and improve both fixed-route and demand-response service. These partnerships have included collaborating on cross-modal trip planning, reservations, and smartphone app integration.

Best Practices

The United States Department of Transportation (USDOT), Federal Transit Administration (FTA), American Public Transportation Association (APTA), and Transportation Research Board (TRB) all provide guidance on assessing and implementing microtransit and MOD programs. FTA recently funded a MOD Sandbox Program to assist and prepare the transit industry for MOD including evaluation of eleven projects and the creation of Mobility Standards and Guidelines Resource (MSGR) Tool with available open-source data.

[5] National Academies of Sciences, Engineering, and Medicine. 2016. *Shared Mobility and the Transformation of Public Transit.* Washington, DC: The National Academies Press. https://doi.org/10.17226/23578.

Agencies that participated in the program found benefits in terms of customer satisfaction, increased transit coverage areas, and reduced wait times. The following sections summarize best practices, challenges, and lessons learned.[6]

National Guidance

- Performance metrics are established based on the project goals and can be summarized into the following categories: ridership, travel behavior, user satisfaction, operational metrics, financial metrics, and environmental metrics.[6] These metrics were often measured through surveys, interviews, and analysis of ridership data, activity data, energy consumption (fuel data), and operational data.
- The business model is ideally based on the agency's goals and agencies need to consider how to ensure flexibility as private partners may vary and change in terms of ownership or revenue source.[7]
- There are challenges to address if a public transit agency receiving FTA funding considers subcontracting paratransit service to ridesourcing companies. When drivers are considered independent contractors, some of these challenges include FTA-required drug and alcohol testing, liability for loading/unloading riders, vehicle safety inspection requirements, and accepting riders requiring accessible vehicles. Demand-responsive transit can use a mixed fleet of accessible vehicles, but the level of access for riders with disabilities must be equivalent to that provided to persons without disabilities.[8]
- Many agencies have implemented on-demand service in areas with low levels of fixed-route ridership (2–14 passengers per hour) and in areas with no current transit service.[9] The size of on-demand transit service zones varies drastically and depends on the number of vehicles used and the level of passenger demand within a given zone.

[6] Federal Transit Administration. "Synthesis Report: Findings and Lessons Learned from the Independent Evaluation of Mobility on Demand (MOD) Sandbox Demonstrations." FTA Research, accessed March 8, 2022, https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-07/FTA-Report-No-0242-rev.pdf

[7] U.S. Department of Transportation. "Business Models Analysis for Mobility on Demand." Intelligent Transportation Systems Joint Program Office accessed January 10, 2022, https://www.its.dot.gov/factsheets/pdf/MOD_BusinessModelsAnalysis.pdf.

[8] American Public Transportation Association. "Shared Mobility and the Transformation of Public Transit." APTA, accessed January 10, 2022, https://www.apta.com/wpcontent/uploads/Resources/resources/reportsandpublications/Documents/APTA-Shared-Mobility.pdf.

[9] Transportation Research Board. "Microtransit or General Public Demand–Response Transit Services: State of the Practice." National Academies of Sciences, Engineering, and Medicine, https://www.trb.org/Main/Blurbs/178931.aspx.

- The typical vehicle for public agencies implementing on-demand service is a minibus that can serve lower levels of ridership, more easily access local streets and roads, and is more fuel efficient than a full-sized transit bus.[10]

Challenges from transit agencies that have implemented on-demand service include:

- Contracting was often cited as a difficulty when working directly with transportation network companies (TNCs) due to contracting terms and non-disclosure agreements.[11]
- Equity concerns were raised by several agencies as some MOD programs were created to serve lower density areas which were affluent areas. Agencies worked to directly address these concerns by ensuring they also added service areas in lower-income areas and keeping service for vulnerable populations as a part of the project goals.
- Project scope often needed to be reduced, which then caused delays. Suggestions from agencies were to create a vision for a project in advance of funding opportunities to better define the project scope and be prepared when a funding opportunity arises.[11]
- A lack of mixed-use land use within a service area was found to be a challenge to build ridership. The MOD Sandbox projects highlighted the need to right size the fleet and vehicle size with the operational zones based on local context. Projects did not always find latent demand in low-density areas, and some found it challenging to develop the ideal service area. Agencies noted in these areas that it is essential to integrate the demand-responsive service area to high-capacity fixed route service that travels outside the service zones. [11]

Lessons learned from transit agencies that have implemented on-demand service include:

- Begin the service as a pilot
    - Agencies often found pilot projects allowed for greater procurement flexibility and allowed them to change service zones as needed without committing to longer-term service.[12]
- Oversight from the transit agency is critical if using a private contractor
    - Agencies emphasized the need to maintain control over any application data and to request a dashboard to monitor service and performance metrics for any

[10] U.S. Department of Transportation. "Business Models Analysis for Mobility on Demand." Intelligent Transportation Systems Joint Program Office accessed January 10, 2022, https://www.its.dot.gov/factsheets/pdf/MOD_BusinessModelsAnalysis.pdf.
[11] Federal Transit Administration. "Synthesis Report: Findings and Lessons Learned from the Independent Evaluation of Mobility on Demand (MOD) Sandbox Demonstrations." FTA Research, accessed March 8, 2022, https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-07/FTA-Report-No-0242-rev.pdf
[12] Federal Transit Administration. "Synthesis Report: Findings and Lessons Learned from the Independent Evaluation of Mobility on Demand (MOD) Sandbox Demonstrations." FTA Research, accessed March 8, 2022, https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-07/FTA-Report-No-0242-rev.pdf

privately contracted service. Ensuring data reciprocity from private vendors allows agencies to monitor origins and destinations for future service modifications.
    - Agencies recommended monitoring performance metrics such as response times and identifying who is responsible for handling different issues within the contract to reduce confusion and clearly define responsibilities.
    - Key performance metrics varied, but included on-time performance, safety standards, complaints per passenger, and quality assurance checks.[13]
- Marketing the new service requires considerable effort
    - Agencies suggested using the same fare structure or payment method as the current fixed-route service. Doing so reduces the need for customers to learn how to use a new system and helps address potential equity and Title VI concerns.
    - Agencies noted the importance of marketing new technology and including extensive community outreach, especially in areas without current fixed-route service. Ensuring that internal and customer expectations are realistic is important, especially when comparing customer service expectations to those of a typical ridesourcing company such as Uber or Lyft.

Existing MOD Programs

Agencies within Florida and across the Nation have implemented MOD programs, primarily using ***microtransit*** services, to address the specific needs of their communities.

Florida

Transit agencies in Florida with land use and development patterns similar to Brevard County were identified for initial screening. For comparison, Brevard County has a population density of just under 600 people per square mile and has both urban and suburban areas where MOD services could be considered. **Table 2** summarizes the key characteristics of each transit agency's service area and the type of MOD service each provides. Additional data such as administrative costs, operating budgets, funding sources, fleet size, and lessons learned will be gathered as part of the peer agency interviews performed as part of this Study. The following provides a high-level summary of some of the existing MOD programs in Florida.

LeeTran (LeeTran Ultra)[14]

Lee County has a population density of 974 people per square mile, approximately 60 percent higher than Brevard County, but has similar distributions of urban and suburban service areas.

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[13] Federal Transit Administration. "Synthesis Report: Findings and Lessons Learned from the Independent Evaluation of Mobility on Demand (MOD) Sandbox Demonstrations." FTA Research, accessed March 8, 2022, https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-07/FTA-Report-No-0242-rev.pdf

[14] Lee Tran. https://www.leegov.com/leetran/ultra

LeeTran rolled out its first MOD initiative in 2022 in the Bonita Springs area through a partnership with Uber. Following the launch of the Bonita Springs Ultra, LeeTran began the planning process to expand the program to Lehigh Acres (scheduled to start in March 2024), supported by a grant from Florida Department of Transportation (FDOT).

Lehigh Acres Ultra is not intended to replace ADA paratransit or fixed-route service in the Lehigh Acres area. Rather, Ultra service complements existing fixed-route service by allowing passengers to travel to any destination within the Ultra service areas or to transfer to existing fixed-route services to reach destinations outside the Ultra service area. Rides are planned to be scheduled on a first-come, first-served basis.

Votran (VoRide)[15]

Of the Florida peer systems, Volusia County has the closest population density to Brevard County. It also has similar demographic and economic characteristics, including distributions of race, median household income, housing units, households, persons with disabilities under age 65, and total employer establishments.

In partnership with Via Transportation, Votran has started a MOD service called VoRide in DeLand in November 2023. Trips outside the service area can be served by requesting ride destinations at specific transit hubs, including the Amelia Super Stop, DeLand Amtrak, and DeLand Intermodal Transfer Facility. Popular destinations include Walmart Supercenter, AdventHealth Deland, Stetson University, Dr. Joyce M. Cusack Resource Center, and the Deland Campus of Daytona State College. Service is planned to be expanded to Orange City, Deltona, and DeBary in 2024.

Palm Beach Transit (Go Glades)[16]

Palm Beach County has a higher population density than Brevard County but has pockets of rural towns that don't have fixed route service served by PalmTran. Instead, PalmTran launched their Go Glades shuttle in 2019 to serve the rural areas of Belle Glade, South Bay, and Pahokee. Riders can request curb-to-curb service to access major destinations such as the Belle Glade Winn-Dixie, Lakeside Medical Center, Constitutional Tax Collector, Glades Health Care Center, Pahokee Save A Lot, and more.

Breeze Transit (Breeze OnDemand)[17]

Sarasota County also has similar demographic and economic characteristics to Brevard County. Breeze Transit provides a variety of fixed-route, on-demand, and ADA paratransit services within Sarasota County. Breeze Transit contracts with Via to provide Breeze OnDemand service within four service areas: Downtown Sarasota (including Lido Key and Longboat Key), Siesta Key,

[15] Votran VoRide. https://www.votran.org/take-a-trip/voride.stml
[16] PalmTran Go Glades. https://www.palmtran.org/go-glades/
[17] Sarasota County. https://www.scgov.net/government/breeze-transit/breeze-ondemand

Venice/Englewood, and North Port. Each service area has a designated transfer point where riders can transfer to fixed-route services for longer trips. Breeze Transit was initiated in June 2021 and the agency operates 39 minivans or SUVs. Sarasota County reported removing 15 underperforming bus routes to fund the on-demand service and the Herald Tribune reported Breeze on Demand served a total of 300,000 trips in fiscal year 2023.[18]

Pinellas Suncoast Transit Authority (PSTA Access MOD)[19]

Pinellas County has one of the densest populations out of the transit agencies reviewed. Its microtransit strategy also differs from others in that it focuses on improving existing paratransit services. The Pinellas Suncoast Transit Authority (PSTA) Access MOD is a premium paratransit service that allows eligible riders to reserve same-day rides, compared to traditional paratransit reservations that typically are made at least a day in advance. PSTA Access MOD was developed through FTA's MOD Sandbox Program, which aims to explore how public transportation agencies can incorporate new technologies that complement and support the traditional functions of public transportation.[20]

PSTA partnered with Lyft, United Taxi, Care Ride, Wheelchair Transport, and Goin Software to develop and demonstrate an approach to more efficient and cost-effective paratransit. The project's goals were to demonstrate more cost-efficient paratransit services while improving customers' mobility and accessibility throughout the county and improving scheduling time. A before-and-after deployment study was conducted to measure program success, which included evaluating ridership satisfaction through survey data, operation expenses, wait times, travel times, spatial distribution of riders, trip purposes, and stakeholder interviews.

Lessons learned and feedback from project partners included:

- Difficulties and high cost of obtaining wheelchair-accessible vehicle (WAV) insurance;
- Standardization of data for analysis and implications for interoperability; and
- Need for early negotiations to ensure partners are working together at the beginning of the project and clear communication channels between agencies and private-sector entities as well as including high-level decision makers to avoid delays.

PSTA continues to operate PSTA Access MOD in conjunction with its existing paratransit services.

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[18]Garwood, 2023. Herald-Tribune. https://www.heraldtribune.com/story/news/local/2023/12/18/sarasota-countys-on-demand-transit-service-gains-thousands-of-riders/71917132007/

[19] Pinellas Suncoast Transit Authority. https://psta.net/programs/psta-access-paratransit/

[20] Federal Transit Administration. "Mobility on Demand (MOD) Sandbox Demonstration: Pinellas Suncoast Transit Authority (PSTA) Public-Private-Partnership for Paratransit Evaluation Report." FTA Research, accessed January 10, 2022, https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-04/FTA-Report-No-0213_0.pdf

St. Lucie County Area Regional Transit (ART On-Demand)[21]

The St. Lucie County Area Regional Transit (ART) is the only fare-free MOD program among the Florida agencies in this literature review. ART On-Demand provides service to two zones in Port St. Lucie, with four transfer points available for making connections between the two zones. Service is contracted with Via Transportation.

Broward County Transit (Sun Shuttle)[22]

The City of Hollywood has partnered with Broward County Transit and Circuit to implement the Sun Shuttle, a MOD program operated by Circuit. Destinations include the Historic Downtown area, restaurants and businesses along Federal Highway, and Hollywood Beach. Trips booked through the Ride Circuit app are $2.00, but fares are free if riders board at a shuttle stop along the route of a Sun Shuttle in service and flag down a driver. Sun Shuttle stops on Hollywood Beach include the Garfield Parking Garage, the Johnson Street Mobility Hub, and the Nevada Parking Garage, all along SR A1A.

Jacksonville Transportation Authority (ReadiRide)[23]

The Jacksonville Transportation Authority (JTA) covers Duval, Nassau, Clay, and St. Johns Counties, which has more than twice the population density and twice the total employer establishments of Brevard County. Its ReadiRide MOD program, operated by Owl, covers 14 service areas with diverse communities. Fares are normally $2.00, but the Door-to-Store partnership between JTA and the City of Jacksonville provides free rides to grocery stores for residents of the Northside ReadiRide zone, an area considered to be a food desert. JTA's robust MOD program may be able to provide lessons learned in serving a diverse community.

[21] St. Lucie Area Regional Transit. https://www.stlucieco.gov/departments-and-services/area-regional-transit/our-services/microtransit
[22] City of Hollywood. https://www.hollywoodfl.org/1167/On-Demand-Shuttle-Service
[23] Jacksonville Transportation Authority. https://www.jtafla.com/ride-jta/bus-schedules-and-services/readiride/

Table 2: Key Service Characteristics of Florida Transit Agency Microtransit Programs

Transit Agency	County Population Density (per square mile)	Service Name	Operator	Cost Per Ride	Hours of Operation	Service Areas	Service Area Jobs	Service Area Population Density (per square mile)	Primary Land Uses Served
LeeTran (Lee County)	974	Ultra On-Demand	Uber	$1.50	Mon – Sun: 7am - 6pm, last call at 5:30pm	Bonita Springs	19,045	1,396	Suburban Residential
						Lehigh Acres	10,030	1,233	Urban Residential & Commercial
VoTran (Volusia County)	503	VoRide	Via	$2.00	Mon – Fri: 6am - 9pm Sat: 7am - 7pm No Sun service	DeLand	27,664	1,964	Urban Residential & Commercial
PalmTran (Palm Beach County)	760	Go Glades	Via	$2.00	Mon – Fri: 5am - 9pm Sat: 7am – 9pm Sun: 8am - 8pm	Bell Glade, Pahokee, South Bay	4,298	2,396	Rural
Breeze Transit (Sarasota County)	781	Breeze OnDemand	Via	$2.00	Mon – Sat: 5am - 10pm Sun: 6am – 9pm	Downtown Sarasota/Lido Key/Longboat Key (City of Sarasota)	48,865	3,732	Urban Residential & Commercial
						Siesta Key	1,869	2,327	Suburban Residential
						Venice/Englewood Area (City of Venice)	15,338	1,598	Suburban Residential & Commercial
						North Port Area (City of North Port)	9,209	753	Suburban Residential

Transit Agency	County Population Density (per square mile)	Service Name	Operator	Cost Per Ride	Hours of Operation	Service Areas	Service Area Jobs	Service Area Population Density (per square mile)	Primary Land Uses Served
St. Lucie County Area Regional Transit	576	ART On-Demand	Via	Free	Mon – Fri: 6am – 7:45pm Sat: 7am – 4:45pm No Sun service	North Zone (St. Lucie West/Torino) South Zone (St. Lucie)	32,931	1,718	Suburban Residential & Commercial
Pinellas Suncoast Transit Authority (Pinellas County)	3,504	PSTA Access MOD	Lyft/United Taxi Care Ride, Wheelchair Support, and Goin App	$4.50 for first 4 rides, $6.00 after	Mon – Sun: 6am – 8pm	Wherever PSTA local bus service is available	458,278	3,504	Urban Residential & Commercial
Broward County Transit and City of Hollywood	1,617	Sun Shuttle	Circuit	$2.00	Mon – Fri: 7am - 6pm Sat-Sun: 11am-7pm	Zones 1 – 3 within the City of Hollywood	64,059	5,613	Urban Residential & Commercial
Jacksonville Transportation Authority (Duval, Nassau, Clay, St. Johns Counties)	1,305	ReadiRide	Owl	$2.00	Mon – Sat: 6am - 7pm No Sun service	14 Jacksonville communities	551,267	Varied	Varied

Beyond Florida

Dallas Area Rapid Transit (DART)

Dallas Area Rapid Transit (DART) participated in the FTA's MOD Sandbox Demonstration with a focus on first-mile/last-mile service. DART has been challenged by the explosive growth of the Dallas–Fort Worth area and residents expressed difficulties in accessing even the higher-frequency fixed routes. To address residents' first-mile/last-mile service challenges, DART implemented MOD through the following:

- Updated the ticketing app, GoPass, to integrate public and third-party mobility providers;
- Started an on-demand microtransit shuttle, GoLink, with point-to-point service across three zones; and
- Added an option to use UberPool in the GoPass app within the zones.

DART found the GoLink shuttle significantly increased coverage of the area and increased overall customer satisfaction. They also evaluated financial impacts and found that the on-demand shuttle had lower operations costs than the low-ridership, fixed-route transit operating in the same lower-density environment. However, the GoLink shuttle was not more efficient than the DART system fixed-route average cost performance.

Challenges DART noted included difficulty with data sharing, technology providers changing during the pilot, and platform integration difficulties. DART requested data for each trip including detailed location, trip distance, trip time, and performance by zone but Uber would not provide due to customer confidentiality concerns. Uber provided data by week and heat maps showing general activity patterns within the zones. Lessons learned were to clearly define service goals, have broad contract terms, ensure the rightsizing of vehicles, create carefully crafted marketing material, and identify the balance needed to collect and share relevant data between project stakeholders.[24]

Arlington, Texas

In Arlington, Texas, Via Transportation's microtransit service has essentially replaced the city's prior fixed-route public transit system and achieved a 97 percent customer satisfaction rate. Starting in 2021, the fare structure was adjusted to be mileage-based, with a quote provided to the rider. The City is currently testing this concept further with an automated vehicle pilot program with funding from FTA's Integrated Mobility Innovation (IMI) award.[25]

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[24] U.S. Department of Transportation, Federal Transit Administration. "Shared Mobility and the Transformation of Public Transit." FTA Report No. 0164, accessed January 10, 2022, https://www.transit.dot.gov/sites/fta.dot.gov/files/2020-05/FTA-Report-No.-0164.pdf.

[25] Arlington On-Demand. https://www.arlingtontx.gov/city_hall/departments/transportation/arlington_on_demand

MOD Goals and Objectives

Space Coast Area Transit's vision is to provide all persons living, working, or visiting Brevard County the opportunity to use transit as a safe, affordable, convenient, and sustainable way of traveling. This vision includes being at the forefront of technology, having an integrated multi-modal system, and implementing MOD. Space Coast Area Transit could consider developing MOD service goals that align with the broader agency vision and goals, such as the following:

- Equity Emphasis
    - Expand service in transportation disadvantaged areas. These areas will include the Justice40 Climate and Economic Justice Screening Tool (CEJEST), Equitable Transportation Community (ETC) census tracts, as well as the Space Coast TPO's Transportation Disadvantaged tracts as defined by their Vision Zero Action Plan.
- Land Use Emphasis
    - Provide flexibility to efficiently serve the areas of growth within Brevard County
- Multi-Modal Emphasis
    - Provide better first-mile/last-mile service to connect to fixed routes
- Resiliency Emphasis
    - Cost effectively increase the ridership in areas with low ridership on existing fixed-route service

These potential goals were developed in consideration with the goals of the TDP. The TDP goals broadly include the emphasis areas of safety, multi-modal options, linking transportation and land use, marketing and public engagement, sustainability, equity, and resiliency.

Next Steps: Peer Agency Interviews

Peer agency interviews will help to identify challenges, opportunities, and lessons learned from existing MOD deployments. The following Florida agencies have been identified as candidates:

- LeeTran (Ultra On-Demand);
- VoTran (VoRide); and
- Breeze Transit (Breeze OnDemand).

Best practices, performance metrics, and lessons learned from the peer agencies will be collected and summarized. Information available on general operating costs of programs varied and several programs have been recently initiated so program costs will be a focus during the peer agency interviews. Questions will be sent to the peer agencies in advance so they may prepare for the meetings or offer initial feedback in writing prior to the meeting.