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AECOM

Comprehensive Regional Transit Plan Update 2025

Pioneer Valley Transit Authority



Table of Contents

1	Executive Summary	1
1.1	Changes Since the 2020 Comprehensive Regional Transit Plan.....	1
1.2	Planning Process.....	2
1.3	Recommendations	2
2	Background and Context.....	5
2.1	Overview of PVTa Services	5
2.2	Purpose	6
3	Needs and Goals.....	8
3.1	Statewide Policies and Goals.....	8
3.2	Agency Mission.....	8
3.3	Identified Needs	8
3.4	Goals and Objectives.....	9
4	Existing Conditions.....	11
4.1	Transit Service Overview.....	11
4.1.1	Service Descriptions	13
4.1.2	Provided Service.....	17
4.1.3	Funding.....	20
4.2	Ridership and Service Operations.....	22
4.2.1	Fixed Route Ridership	24
4.2.2	Fixed Route Operations	30
4.2.3	Demand Response Ridership and Operations	34
4.2.4	Transit Service Performance	36
4.2.5	On-Time Performance	39
4.2.6	Customer Service	41
4.3	Regional Connections and Partnerships.....	42
4.4	Asset Management	43
4.4.1	Maintenance	43
4.4.2	Vehicles	45
4.4.3	Facilities	45
4.4.4	Technology.....	47
4.5	Policies and Procedures.....	47
4.6	Safety and Security	47
4.7	Peer Agency Analysis	49
5	Market Evaluation	53
5.1	Demographic Analysis.....	53
5.1.1	Population Density	54
5.1.2	Older Adult Population	54
5.1.3	Youth Population	54
5.1.4	Median Household Income.....	58
5.1.5	Low-Income Population	58
5.1.6	Zero-Vehicle Households.....	58
5.1.7	Population Other Than Non-Hispanic White	58
5.1.8	Adult Disabled Population.....	58

5.1.9	Title VI Population	64
5.1.10	Job Density	64
5.2	Transit Score	67
5.3	Public and Stakeholder Engagement	69
5.3.1	Recent Survey Efforts	69
5.3.2	Virtual Stakeholder Meetings	71
5.3.3	Pop-Up Event	78
6	Performance Measures.....	81
6.1	Ridership	82
6.2	Financial	82
6.3	Customer Service and Satisfaction	83
6.4	Asset Management	83
6.5	Safety	84
6.6	Annual Performance.....	84
7	Trends and Uncertainties.....	85
7.1	Future Uncertainties	85
7.1.1	Population and Demographics.....	85
7.1.2	Affordability.....	87
7.1.3	Technology.....	87
7.1.4	Funding for Transit	88
7.2	2020 Alternative Scenarios	89
7.3	Looking Ahead: 2025 to 2030 Scenario Planning	90
7.3.1	Low Ridership	90
7.3.2	Medium Ridership.....	91
7.3.3	High Ridership	91
7.4	Future Opportunities	92
8	Recommendations.....	94
8.1	Changes Since the 2020 Comprehensive Regional Transit Plan.....	94
8.2	Planning for an Uncertain Future	95
8.3	Identified Needs	95
8.4	Recommendations	96
8.4.1	Service Recommendations.....	97
8.4.2	Capital Recommendations	97
8.4.3	Data and Performance Recommendations.....	98
8.4.4	Policy Recommendations.....	99
8.4.5	Coordination Recommendations.....	99
8.4.6	Recommendations for Additional Studies.....	100
9	References	102
	Appendix A Fares.....	106
	Appendix B Environmental Policy	114
	Appendix C Public Comments.....	119

Figures

Figure 1. PVRTA Route 33 Bus.....	1
Figure 2. Massachusetts RTA Service Area	6
Figure 3. PVRTA Service Area	12
Figure 4. Annual Operating Cost by Mode (FY 2020-FY 2024)	21
Figure 5. Annual System Ridership (FY 2020-FY 2024)	23
Figure 6. Ridership Breakdown by Service Type (FY 2024)	23
Figure 7. Monthly Ridership Trends (2022-2024)	24
Figure 8. Fixed Route Annual Ridership (FY 2020-FY 2024).....	24
Figure 9. Annual Ridership by Route (FY 2024).....	26
Figure 10. Weekday Average Ridership by Route (FY 2024).....	27
Figure 11. Saturday Average Ridership by Route (FY 2024).....	28
Figure 12. Sunday Average Ridership by Route (FY 2024)	29
Figure 13. Average Ridership Change from FY 2019-FY 2024	30
Figure 14. Passengers per Hour by Route, Tier 1 and Tier 2 (FY 2024)	33
Figure 15. Passengers per Hour by Route, Tier 3 and Tier 4 (FY 2024)	33
Figure 16. Overall Scheduled Trips Operated (FY 2020-FY 2024)	34
Figure 17. Demand Response Annual Ridership (FY 2020-FY 2024).....	35
Figure 18. On-Time Performance: Fixed Route (FY 2022-FY 2024).....	39
Figure 19. On-Time Performance by Fixed Route (FY 2024)	40
Figure 20. On-Time Performance: Demand Response (FY 2022-FY 2024).....	41
Figure 21. Number of Valid Complaints per 100,000 Passenger Trips: Fixed Route (FY 2020-FY 2024)	42
Figure 22. Number of Valid Complaints per 100,000 Passenger Trips: Demand Response (FY 2020-FY 2024)	42
Figure 23. Miles Between Road Calls (2020-2024)	44
Figure 24. Preventative Maintenance Performed On Time: Systemwide (2020-2024)	44
Figure 25. Mean Miles Between Major Mechanical Failures (2020-2024)	45
Figure 26. Number of Preventable Accidents per 1,000,000 Revenue Miles: Systemwide (2020-2024)	48
Figure 27. Number of Injuries per 1,000,000 Revenue Miles (2020-2024).....	48
Figure 28. Number of Safety Events per 1,000,000 Revenue Miles (2020-2024).....	49
Figure 29. Population Density.....	55
Figure 30. Older Adult Population	56
Figure 31. Youth Population	57
Figure 32. Median Household Income	59
Figure 33. Low-Income Population	60
Figure 34. Zero-Vehicle Households	61
Figure 35. Population Other Than Non-Hispanic White.....	62
Figure 36. Adult Disabled Population	63
Figure 37. Title VI Population	65
Figure 38. Job Density	66
Figure 39. Transit Score.....	68
Figure 40. Councils on Aging Virtual Stakeholder Meeting Interactive Whiteboard Activity	73
Figure 41. Area Business Owners Virtual Stakeholder Meeting Interactive Whiteboard Activity.....	75
Figure 42. Municipalities and Bicycle Advocacy Virtual Stakeholder Meeting Interactive Whiteboard Activity	77
Figure 43. Pop-Up Event Engagement	79
Figure 44. Interactive Activity Board: Identify Your 5 Priorities.....	80
Figure 45. Long-term Population Projections for Massachusetts (2000-2050).....	86

Figure 46. Pioneer Valley MPO Housing and Transportation Costs as a Percentage of Residents' Income	87
Figure 47. Inadequate Charging Infrastructure is the Leading Obstacle to Fleet Modernization	88
Figure 48. State Funding for Massachusetts' RTAs from FY 2007 to FY 2025	89
Figure 49. PVRTA Annual System Ridership (FY 2019- FY 2024).....	90

Tables

Table 1. Recommendations.....	2
Table 2. Statistics by Service (FY 2024).....	13
Table 3. Fixed Routes ^a	13
Table 4. Span of Service and Frequency.....	17
Table 5. Operating Funding Sources (FY 2022-FY 2024).....	21
Table 6. Farebox Revenue by Fiscal Year and Service Type (FY 2020-FY 2024).....	22
Table 7. Capital Expenditure Sources (FY 2022-FY 2024).....	22
Table 8. Annual Fixed Route Operating Statistics (FY 2020-FY 2024).....	30
Table 9. Operating Statistics by Route (FY 2024).....	31
Table 10. Demand Response Operating Statistics (FY 2020-FY 2024).....	35
Table 11. Demand Response Metrics (FY 2020-FY 2024).....	36
Table 12. Service Effectiveness (FY 2020-FY 2024).....	37
Table 13. Cost Effectiveness: Fixed Route (FY 2020-FY 2024).....	38
Table 14. Cost Effectiveness: Demand Response (FY 2020-FY 2024).....	38
Table 15. Equipment Inventory Summary (FY 2024).....	45
Table 16. Facility Inventory Summary	46
Table 17. Peer Systems Census Data	50
Table 18. Peer Systems Operating Data.....	51
Table 19. Peer System Performance.....	52
Table 20. Pop-Up Event: Identify Five Priorities	80
Table 21. Performance Measures Overview	81
Table 22. Ridership Metrics and Targets (FY 2026)	82
Table 23. Financial Metrics and Targets (FY 2026)	82
Table 24. Customer Service and Satisfaction Metrics and Targets (FY 2026)	83
Table 25. Asset Management Metrics and Targets (FY 2025)	83
Table 26. Safety Metrics and Targets (Calendar Year 2024).....	84
Table 27. Annual Performance Metrics (FY 2026).....	84
Table 28. Opportunities by Ridership Scenario	92
Table 29. Identified Needs	95
Table 30. Recommendation Categories	96
Table 31. Service Recommendations	97
Table 32. Capital Recommendations.....	98
Table 33. Data and Performance Recommendations	98
Table 34. Policy Recommendations	99
Table 35. Coordination Recommendations.....	99
Table 36. Recommendations for Additional Studies	100
Table 37. Fixed Route Fare Policy	107
Table 38. ADA and Senior Van Service Fare Policy	108
Table 39. Cities in Massachusetts with Climate Action Plan Transportation Goals	117

Acronyms

ACS	American Community Survey
ADA	Americans with Disabilities Act
APC	Automatic Passenger Count
AVL	Automatic Vehicle Location
BAT	Brockton Area Transit Authority
BRTA	Berkshire Regional Transit Authority
CAD	Computer Aided Dispatch
COA	Council on Aging
C RTP	Comprehensive Regional Transit Plan
FPL	Federal Poverty Level
FRTA	Franklin Regional Transit Authority
FTA	Federal Transit Administration
FY	Fiscal Year
HCC	Holyoke Community College
HTC	Holyoke Transit Center
I IJA	Infrastructure Investment and Jobs Act
JWO	John W. Olver Transit Center
KPI	Key Performance Indicator
MassDOT	Massachusetts Department of Transportation
MBTA	Massachusetts Bay Transportation Authority
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
NTD	National Transit Database
PTASP	Public Transit Agency Safety Plan
PVPC	Pioneer Valley Planning Commission
PVTA	Pioneer Valley Transit Authority
RTA	Regional Transit Authority
RTD	Rail & Transit Division
TAM	Transit Asset Management
TERM	Transit Economic Requirements Model
TOD	Transit Oriented Development
TSP	Transit Signal Priority
TVM	Ticket Vending Machine
UMass	University of Massachusetts

VA Veterans Administration

WRTA Worcester Regional Transit Authority

Glossary

Access: The opportunity to reach a given destination within a certain timeframe or without significant physical, social, or economic barriers.

Accessible Vehicle: A public transportation vehicle that does not restrict access, is usable, and provides allocated space and/or priority seating for individuals who use mobility devices.

Americans with Disabilities Act (ADA): Passed in July 1991, gave direction to local transit agencies to ensure full access to transportation for persons with disabilities

Boarding: The total number of passengers getting on a transit vehicle during a specified period of time.

Capital Cost: The cost of equipment and facilities required to support transportation systems, including vehicles, radios, shelters, software, etc.

Central Transfer Point: A central meeting place where routes or zonal demand response buses intersect so that passengers may transfer. Routes are often timed to facilitate transferring and depart once passengers have had time to transfer. Strategic placement of the transfer point can attract riders to the system and may provide an opportunity for joint marketing promotions with local merchants.

Commuter Bus Service: Transportation designed for daily, round-trip service, which accommodates a typical 8-hour, daytime work shift (e.g., an outbound trip arriving at an employment center by 8 AM, with the return trip departing after 5 PM).

Computer Aided Dispatch/ Automatic Vehicle Location: A computer technology with advanced dispatching capabilities combined with automatic vehicle location, ensuring that vehicles are where they need to be when required.

Coordination: Pooling the transportation resources and activities of several agencies. The owners of transportation assets talk to each other to find ways to mutually benefit their agencies and their customers. Coordination models can range in scope from sharing information, to sharing equipment and facilities, to integrated scheduling and dispatching of services, to the provision of services by only one transportation provider (with other former providers now purchasing services). Coordination may involve human service agencies working with each other or with public transit operations.

Cost per Boarding: The total operating expenditures of a route or service divided by the number of total boardings. Boardings are often presented as unlinked passenger trips.

Cost per Revenue Mile or Hour: The total operating expenditures of a route or service divided by the number of revenue miles or revenue hours.

Cutaway Vehicle: A smaller bus built on a modified van or truck chassis with the rear section removed, allowing a bus shell to be added by a second manufacturer, creating a customizable mini-bus or shuttle for services like paratransit, local routes, or demand response.

Demand Response Service: Service to individuals that is activated based on passenger requests. Usually involves curb-to-curb or door-to-door service. Trips may be scheduled on an advance reservation basis or in "real-time." Usually smaller vehicles are used to provide demand response service. This type of service usually provides the highest level of service to the passenger but is the most expensive for the transit system to operate in terms of cost per trip. In rural areas with relatively high populations of elderly persons and persons with disabilities, demand response service is sometimes the most appropriate type of service.

Dial-A-Ride Service: A name that is commonly used for demand response service. It is helpful in marketing the service to the community, as the meaning of “dial-a-ride” may be more self-explanatory than “demand response” to someone unfamiliar with transportation terms.

Express Bus Service: Direct service from a limited number of origins to a limited number of destinations with no intermediate stops. Typically, express bus service is fixed route/fixed schedule and is used for longer distance commuter trips. The term may also refer to a bus that makes a limited number of stops, while a local bus makes many stops along the same route but as a result takes much longer.

Fair Share Amendment: A 4 percent Massachusetts surtax on income above \$1 million annually approved by Massachusetts voters in 2022. The revenue generated by the surtax is constitutionally dedicated to funding public education and transportation.

Fare: Revenue from cash, tickets, and pass receipts given by passengers as payment for public transit rides.

Fare-Free Transit: Any transit service that does not require a passenger fare to ride.

Farebox Recovery Ratio: The percentage of operating costs covered by revenue from fares and contract revenue (total fare revenue and total contract revenue divided by the total operating cost).

Fixed Route: Transportation service operated over a set route or network of routes on a regular time schedule.

Headway: The length of time between vehicles moving in the same direction on a route. Headways are called short if the time between vehicles is short and long if the time between them is long. When headways are short, the service is said to be operating at a high frequency; if headways are long, service is operating at a low frequency.

Intercity Bus Service: Regularly scheduled bus service for the public that operates with limited stops over fixed routes connecting two or more urban areas not near, that has the capacity for transporting baggage carried by passengers, and that makes meaningful connections with scheduled intercity bus service to more distant points, if such service is available. Intercity bus service may include local and regional feeder services, if those services are designed expressly to connect to the broader intercity bus network.

Memorandum of Understanding: A formal, non-binding document that outlines the framework for cooperation, roles, responsibilities, and objectives between multiple agencies or jurisdictions involved in providing transit services.

Metropolitan Planning Organization (MPO): The policy board of an organization created and designated to carry out the metropolitan transportation planning process. MPOs are required to represent localities in all urbanized areas with populations over 50,000.

Microtransit: A form of demand response service, open to the general public, that requires some type of “reservation,” typically made via an app-based system. Typically, microtransit uses software algorithms to completely automate the scheduling of the trip, the fare collection (if any), and the route the driver will utilize (communicating with the driver via some type of mobile data terminals).

National Transit Database (NTD): The United States government’s main repository of data about the financial, operating, and asset conditions of American transit systems.

Non-Revenue Vehicle: Any vehicle used by a public transit organization that is not used for passenger service but is essential to support transit operations and safety, such as service trucks, supervisor cars, and utility vehicles.

Operating Expenditure: The recurring cost of providing transit service (wages, salaries, fuel, oil, taxes, maintenance, insurance, marketing, etc.).

Operating Revenue: The total revenue earned by a transit agency through its transit operations. It includes passenger fares, advertising, and other revenues.

Paratransit Service: The transportation of passengers by motor vehicle or other means of conveyance by persons operating on a regular and continuing basis and the transportation or delivery of packages in conjunction with an operation having the transportation of passengers as its primary and predominant purpose and activity but excluding regular route transit. Paratransit includes transportation by carpool and commuter van, point deviation and route deviation services, shared-ride taxi service, dial-a-ride service, and other similar services.

Passengers per Mile or Hour: Productivity measure that takes the total passengers and divides by the miles and/or hours operated. The passengers may be presented as unlinked passenger trips and hours and/or miles may be presented as either total vehicle miles or hours or as revenue miles or hours.

Performance Indicator: A metric that provides meaningful information about the condition or performance of the transportation system but is neither managed nor used to evaluate the effectiveness of policies, strategies, or investments.

Performance Measure: A metric that measures progress toward a goal, outcome, or objective. This definition covers metrics used to make decisions or evaluate the effectiveness or adequacy of a policy, strategy, or investment.

Performance Target: A specific performance level representing the achievement of a goal, outcome, or objective.

Public Transportation: Transportation service that is available to any person upon payment of the fare either directly, subsidized by public policy, or through some contractual arrangement, and that cannot be reserved for the private or exclusive use of one individual or group. "Public" in this sense refers to the access to the service, not to the ownership of the system that provides the service.

Public Transportation Agency Safety Plan (PTASP): A plan published by a public transit agency containing processes and procedures that define a comprehensive, collaborative, and systematic approach to managing safety. All public transportation systems that receive federal funds under the FTA Urbanized Area Formula Grants are required to have a Public Transportation Agency Safety Plan.

Revenue Hour: The number of transit vehicle hours when passengers are being transported. Calculated by taking the total time when a vehicle is available to the public with the expectation of carrying passengers. Excludes deadhead hours, when buses are positioning but not carrying passengers, but includes recovery/layover time.

Revenue Mile: The number of transit vehicle miles when passengers are being transported. Calculated by taking the total mileage operated when a vehicle is available to the public with the expectation of carrying passengers. Excludes deadhead mileage, when buses are moving but not carrying passengers.

Revenue Vehicle: Any vehicle, such as a bus, train, or railcar, used to actively carry passengers or operating on a scheduled route to pick up or drop off passengers.

Ridership: The total of all unlinked passenger trips, including transfers. One trip that includes a transfer would be counted as two unlinked passenger trips.

Ridesharing: A form of transportation, other than public transit, in which more than one person shares the use of a vehicle, such as a van or car, to make a trip. Variations include carpooling or vanpooling.

Service Area: The geographic area that coincides with a transit system's legal operating limits (city limits, county boundary, etc.).

Service Gap: When certain geographic segments cannot be covered by transportation services. This term can also refer to instances where service delivery is not available to a certain group of riders, or at a specific time.

Service Span: The duration of time that service is made available or operated during the service day (e.g., 6 AM to 10 PM on weekdays).

Spare Ratio: The percentage/number of vehicles that an operator purchases in excess of the number of vehicles required to provide the maximum level of service. The spares are required so that some vehicles may cycle through a preventive maintenance regimen while the full level of planned service can still be provided.

Standard: A recommendation that leads or directs a course of action to achieve a certain goal. A standard is the expected outcome for the measure that will allow a service to be evaluated. There are two sets of transit standards.

- **Service design and operating standards:** Guidelines for the design of new and improved services and the operation of the transit system.
- **Service performance standards:** The evaluation of the performance of the existing transit system and of alternative service improvements using performance measures.

State Contract Assistance: The program through which the RTAs receive state operating funding for transit at the discretion of the Massachusetts Legislature via the state budget process annually. The total amount of state contract assistance funding provided in the state budget is allocated to the RTAs via a formula developed with RTA input.

State of Good Repair: The condition of physical assets used in public transit, such as vehicles, stations, and signals, that permits their full designed performance level, ensuring safe, reliable, and efficient use through regular maintenance and timely replacement.

Title VI: Title VI of the Civil Rights Act of 1964, which requires that "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."

Total Operating Cost: The total of all operating costs incurred during the transit system calendar year, excluding expenses associated with capital grants.

Transfer: Passengers arrive on one bus and leave on another (totally separate) bus to continue their trip. The boarding of the second vehicle is counted as an unlinked passenger trip.

Transit Asset Management Plan: A strategic document that helps transit agencies systematically manage their capital assets, such as vehicles, facilities, and other equipment, over their entire lifecycle and to ensure they are safe, reliable, and cost-effective. Transit agencies that own, operate, and manage capital assets and receive funding from FTA are required to adopt a Transit Asset Management Plan.

Transit Dependent: A population or person who does not have immediate access to a private vehicle, or because of age or health reasons cannot drive and must rely on others for transportation.

Transit Economic Requirements Model: A computer application published by FTA that is designed to estimate transit capital investment needs over an extended time horizon, helping transit agencies assess current asset conditions and adopt an asset management strategy that achieves state of good repair.

Transit Subsidy: The operating costs not covered by revenue from fares or contracts.

Transportation Network Company: Private sector companies that provide software routing, scheduling, and payment services to independent contractor drivers for a fee; these drivers then utilize their own vehicles to provide a (typically) curb-to-curb transportation service, sometimes to sole riders and sometimes to pooled groups.

Trip Denial: Occurs when a trip is requested by a passenger, but the transportation provider cannot provide the service. Trip denial may happen because capacity is not available at the requested time. For ADA paratransit, a capacity denial is specifically defined as occurring if a trip cannot be accommodated within the negotiated pick-up window. Even if a trip is provided, if it is scheduled outside the pick-up window, it is considered a denial. If the passenger refused to accept a trip offered within the pick-up window, it is considered a refusal, not a capacity denial.

Unlinked Passenger Trip: Typically, one passenger trip recorded any time a passenger boards a transportation vehicle or other conveyance used to provide transportation. "Unlinked" means that one trip is recorded each time a passenger boards a vehicle, no matter how many vehicles that passenger uses to travel from their origin to their destination.

Useful Life Benchmark: The expected service life for a capital asset, like a bus or utility vehicle, before major overhaul or replacement. Standards for useful life benchmarks for different vehicle classes are defined by FTA.

Zero Emission Vehicle: A vehicle that produces no tailpipe pollutants or greenhouse gases during operation, primarily through electric power from batteries.

1 Executive Summary

This 2025 update of the Comprehensive Regional Transit Plan (CRTP) for Pioneer Valley Transit Authority (PVTA) will shape and guide the region's transit priorities and improvements over the next five years. The recommendations in this plan emerged from a data-informed process that incorporated historical operational data, stakeholder feedback, a market analysis, and PVTA priorities. They establish a framework for advancing strategic service adjustments, capital improvements, and policy initiatives and make significant progress toward improving mobility for residents across the region.

Figure 1. PVTA Route 33 Bus



Source: PVTA

1.1 Changes Since the 2020 Comprehensive Regional Transit Plan

The 2020 CRTP featured a range of recommendations including service enhancements and capital investments. In the last five years there has been a significant infusion of state and federal funding supporting expanded transit service. Some of the investments that PVTA has made over the past five years include:

- Implemented new service with 30-minute frequencies between Northampton and Springfield to improve connections between the Northern and Southern Tiers
- Implemented service between Amherst and Greenfield in coordination with Franklin Regional Transit Authority (FRTA)
- Doubled service on select routes and improved frequency on others
- Added early-morning and late-evening service on select routes
- Added Saturday and Sunday service on nine routes

- Implemented same-day paratransit service in four communities
- Expanded service hours for Senior Service

1.2 Planning Process

The planning process for the CRTP was a collaborative effort in which PVTa engaged with key stakeholders, such as local municipalities as well as members of the general public. Input from these groups, along with guidance from statewide and regional transportation plans, was used to establish goals and objectives for this plan.

PVTa used both quantitative and qualitative input when developing recommendations. An evaluation of PVTa's current transit operations, including existing service levels, ridership patterns, and overall system performance, helped to identify baseline efficiencies and opportunities. It should be noted that the data in this plan were largely gathered between April and October 2025 to analyze existing conditions and provide a foundation for later elements. Therefore, the data referenced are largely from FY 2020 to FY 2024— the plan's five-year reporting period. Service enhancements and ridership changes beyond this timeframe, while sometimes discussed in the narrative, are largely not fully captured in the data represented.

Additionally, a market analysis was carried out to contextualize the region's demographic and socioeconomic characteristics. The analysis included factors such as population trends, job locations, and transit demand to pinpoint areas with the most critical needs.

In parallel, a robust outreach campaign was conducted, utilizing both in-person gatherings and virtual sessions to ensure input from a diverse group of stakeholders. Key outreach activities included virtual stakeholder meetings as well as an in-person pop-up event at Springfield Union Station. This outreach built on recent (2022 to 2024) rider and non-rider surveying efforts PVTa led prior to this CRTP process.

1.3 Recommendations

PVTa developed 25 recommendations that address the needs identified through the CRTP planning process (Table 1). These recommendations will guide efforts over the next five years and provide a flexible approach to pursuing strategic improvements in mobility depending on how the future unfolds. For instance, significant changes in ridership demand or propulsion technology could change how certain recommendations are prioritized.

The recommendations are grouped into six primary categories: service, policy, data and performance, coordination, capital, and additional studies.

Table 1. Recommendations

Category	Recommendation
Service	Leverage new information technology to improve paratransit service delivery including mobility on-demand service. Continuously use data to monitor demand and performance and make adjustments to local routes to improve passenger experience.
Service	Evaluate the potential for increasing weekday frequencies to 15 minutes on high-performing (measured using passengers per hour) routes with existing headways greater than 15 minutes.

Category	Recommendation
Service	Extend Sunday service hours to more closely match Saturday service hours on high ridership routes.
Service	Continue to improve frequencies on all local routes. Improve remaining routes, such as Routes 14, 19, 22, R44, and 33, to 60 minutes at a minimum.
Service	Explore additional or enhanced service in equity areas meeting Title VI thresholds with low existing service levels.
Policy	Coordinate with MassDOT to incorporate routes currently funded through the Regional Transit Innovation Grant and FTA Section 5311 programs (such as the B79) for state contract assistance.
Policy	Continue to make safety improvements to PVRTA facilities and promote a culture of safety for all PVRTA staff.
Data and Performance	Continue to monitor route-level and stop-level KPIs to deliver efficient and consistent service. Improve on-time performance by 10 percent annually (systemwide).
Coordination	Continue interjurisdictional collaboration and coordination to facilitate regional mobility such as connections to the Pioneer Valley Flyer, Compass Rail (Palmer and Union Stations), and Windsor Locks, Connecticut.
Coordination	Continue to coordinate with COAs within the PVRTA service area to improve service and manage growth in demand.
Coordination	Support TOD efforts within the region through coordination with local municipalities, the state Department of Housing and Community Development, and local non-profits such as Wayfinders.
Coordination	Continue to support first-/last-mile bike connections to expand access and mobility. Coordinate with Valley Bike, PVPC, and local municipalities to understand growth areas and planned projects.
Coordination	Continue to coordinate with neighboring RTAs (such as FRTA, WRTA, and BRTA) to coordinate service delivery and facilitate interconnectivity between service areas. This may take the form of aligning schedules for timed transfers.
Capital	Increase the fleet of 60-foot buses for use on routes with high ridership to add capacity and alleviate crowding.
Capital	Procure additional vehicles appropriate for route-level needs to deliver more service and meet rider demand. This might include low-floor models, 60-foot buses, etc.
Additional Studies	Undertake a financial analysis to document and evaluate the financial context of PVRTA's service, including various levels of funding involved from local, state, and federal sources. This analysis should also examine opportunities for future funding.
Additional Studies	Coordinate with PVPC on its traffic signal inventory study to identify areas of improvement for TSP and next steps for implementation.

Category	Recommendation
Additional Studies	As fare-free service tends to encourage passengers to make more short trips, revisit bus stop balancing effort to align spacing with corridor ridership.
Additional Studies	Continue to assess service coverage and service levels in areas of low population density to identify unmet needs.
Additional Studies	Discuss potential street improvements with local planning, Public Works staff, MassDOT, and PVPC staff regarding high-traffic and high-ridership corridors to improve bus operations. Potential interventions include priority lanes at choke points and other supportive roadway improvements.
Additional Studies	Explore potential to improve travel speeds through adding express service, bus rapid transit, or other transit service in the Pioneer Valley region.
Additional Studies	Continue to conduct public outreach to determine whether there are any major destinations not being served by the existing system that may be impacting ridership.
Additional Studies	Explore transportation options to provide evening service for second- and third-shift employees. This may include working with regional chambers and major employers to identify specific service options and marketing services to employees.
Additional Studies	Explore opportunities for enhanced connections between PVRTA service in Springfield and southern communities such as Worcester, Bradley, or Hartford.
Additional Studies	Update PVRTA's Comprehensive Service Analysis.

2 Background and Context

PVTA, alongside the Commonwealth's 14 other Regional Transit Authorities (RTAs), plays a crucial role in providing essential mobility options and lifeline services to millions of residents across the Commonwealth. Demonstrating its commitment to continuous improvement, PVTA updates its CRTP every five years. This document represents the 2025 update of the PVTA CRTP, intended to support planning efforts over the next five years, through 2030.

The chapters of the plan include:

- **Needs and Goals:** Overview of identified needs and goals of PVTA that provide the foundation for recommendations over the next five years.
- **Existing Conditions:** Review of PVTA performance information.
- **Market Evaluation:** Assessment of transit demand through demographic analysis and engagement feedback results.
- **Performance Measures:** Review of performance measures used by PVTA to assess service.
- **Trends and Uncertainties:** Assessment of key uncertainties facing PVTA over the next five years and how those may impact implementation of recommendations.
- **Recommendations:** List of specific recommendations to guide PVTA priorities over the next five years.

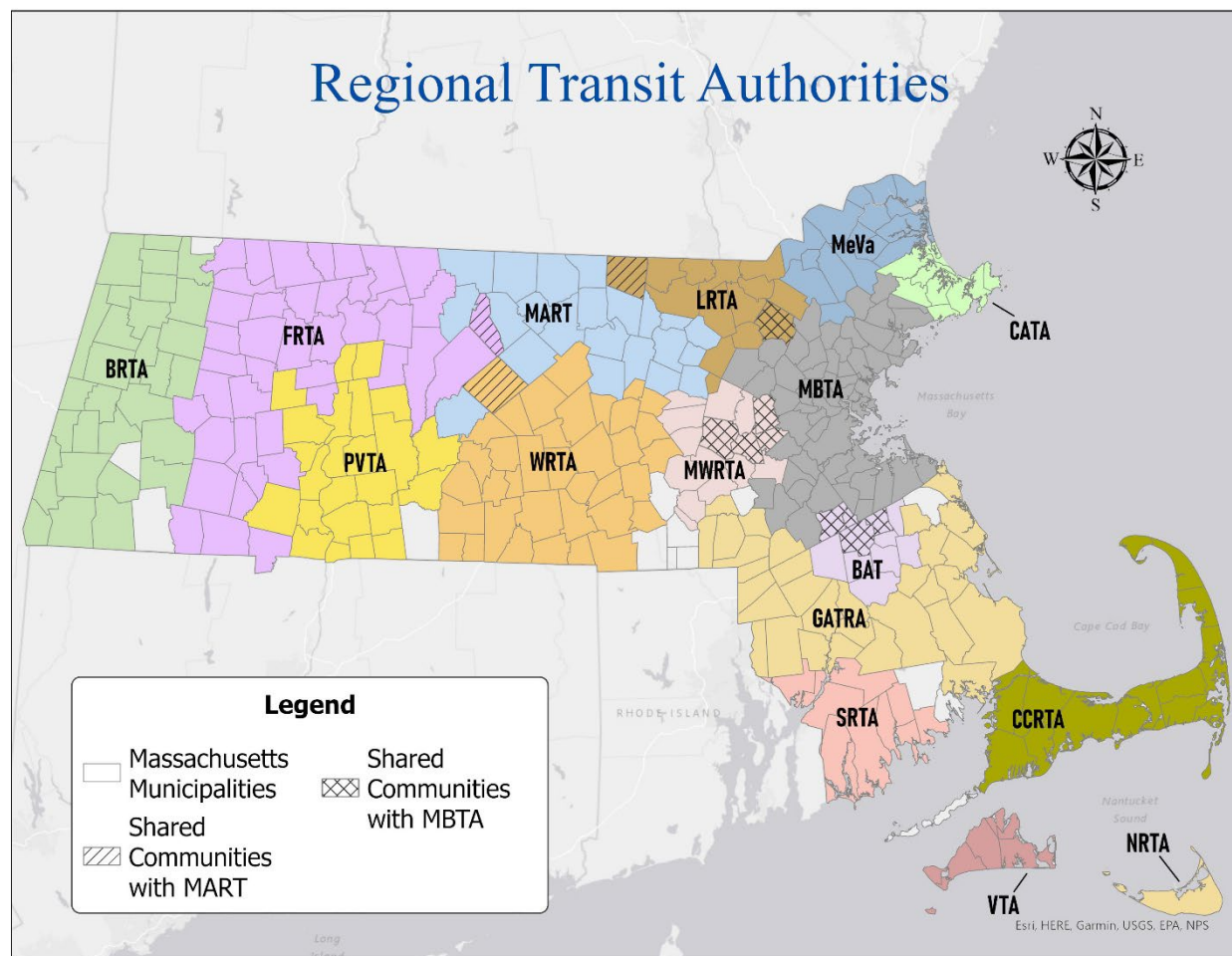
Additionally, this CRTP contains appendices reviewing fare (Appendix A) and environmental (Appendix B) considerations based on the broader statewide and national context. Fare-free service described in Appendix A in particular has been attributed as a key strategy supporting the ongoing recovery in transit ridership after the COVID pandemic. During the development of this plan, legislation was passed for statewide fare-free RTA service, subject to appropriation of replacement funding. This makes the content of that appendix even more relevant to the future of PVTA service and its continued growth in ridership over the coming five years. Finally, Appendix C contains the public comments received during outreach for this plan.

2.1 Overview of PVTA Services

PVTA is headquartered in Springfield and is one of the 15 RTAs that, along with the Massachusetts Bay Transportation Authority (MBTA), operates public transportation in the Commonwealth. PVTA provides fixed route and demand response services within the Pioneer Valley region in western Massachusetts, serving 24 area communities across 619 square miles (Figure 2).

PVTA's service area includes three intercity rail Amtrak stations: Springfield Station, Holyoke Station, and Northampton Station. PVTA's service area can be divided into two subareas – a Northern Tier largely serving college campuses and communities in Amherst and Northampton, and a Southern Tier with concentrated service in Springfield extending out to neighboring communities. PVTA also provides complementary paratransit service, in compliance with the Americans with Disabilities Act (ADA), and on-demand Senior Service for older adults (age 60 years and older).

Figure 2. Massachusetts RTA Service Area



Source: Massachusetts Department of Transportation (MassDOT)

Since the 2020 CRTP, PVTA has made new investments both in capital procurements as well as day-to-day operations. Additional information on those investments, as well as an overview of 2020 recommendations implementation, can be found in Chapter 8.

2.2 Purpose

The CRTP serves as a policy-level document outlining PVTA's vision and priorities for the next five years. Supported by the Commonwealth as part of a statewide effort, it complements other statewide and regional plans such as the *Beyond Mobility Massachusetts 2050 Transportation Plan* and *Report of the Task Force on RTA Performance and Funding* (see Chapter 3 for complete list of relevant plans).

The *Task Force* report, in particular, recommends that "[a]ll state contract assistance will be connected to performance targets via a Memorandum of Understanding (MOU). MOUs will be bilaterally negotiated between MassDOT Rail & Transit Division (RTD) and each RTA and will identify performance targets in the following categories: ridership; customer service and satisfaction; asset management; and financial performance (incorporating a number of factors including farebox recovery ratio)." Based on this recommendation, the Massachusetts State Legislature has included language in the annual state budget since Fiscal Year (FY) 2020 on the collection of performance data and the distribution of state funding in accordance with the most recently established MOU. As such, MassDOT RTD and the RTAs undergo a biennial bilateral negotiation process to establish an agreed upon MOU that includes performance

targets in the above-mentioned categories. Also included in the MOU is a commitment by the RTA to conduct a long-range CRTP as a mechanism to inform and support data-driven decisions, to work with local partners, and to communicate and discuss with MassDOT RTD on unmet needs or priorities and the potential for additional resources or support, if available.

Developed alongside these other plans, the CRTP provides guidance to PVTA and state and local partners as they develop their own plans. The CRTP can also serve as a valuable tool for helping the public gain a clearer understanding of how PVTA operates, the value it provides, and opportunities for improvements in the future.

Over the next five years, this document will serve as a resource, offering strategic guidance to inform policy decisions that shape the region's transportation future. Acting as a roadmap for data-driven decision-making that can inform more detailed capital and operational planning, the CRTP plays a dual role: it is both a product of ongoing discussions on public transportation in the state and region and a catalyst for future dialogue and action.

3 Needs and Goals

Providing the foundation for this plan are the needs and goals of PVRTA as well as its partner agencies. As such, goals and objectives from relevant plans as well as PVRTA policy documents were identified. Example goals include exploring opportunities for interconnectivity, delivering high quality service that meets resident needs, ensuring stable agency funding, and operating efficiently and effectively. This chapter describes the suite of regional and statewide plans and policies that help to define foundational goals for this plan.

3.1 Statewide Policies and Goals

Over the last six years, the Commonwealth of Massachusetts has developed the following statewide planning and policy documents that are relevant to PVRTA's CRTP update and goal setting:

- *Beyond Mobility Massachusetts 2050 Transportation Plan* (2024)
- *Regional Bus Network Assessment* (2024)
- *Benefits of Regional Mobility Managers Plan* (2023)
- *Clean Energy and Climate Plan for 2050* (2022)
- *Massachusetts State Plan on Aging* (2021)
- *Massachusetts 2050 Decarbonization Roadmap* (2020)
- *Report of the Task Force on RTA Performance and Funding* (2019)

Together, the documents highlight robust goals and action steps that are relevant for all Commonwealth RTAs. Common goals from these statewide documents that are relevant to PVRTA-specific needs and goals for the 2025 CRTP include:

- Promoting cross-RTA coordination and collaboration among services, where feasible
- Supporting and growing transit ridership
- Exploring and maximizing innovative funding sources
- Ensuring Council on Aging (COA) services prioritize access for older adults and persons with disabilities

As detailed further in this chapter, the overarching goals for the PVRTA CRTP are aligned with many of these statewide goals.

3.2 Agency Mission

PVRTA is committed to providing the highest quality of convenient and accessible public transportation service that meets the needs of customers in an efficient, cost-effective manner.

3.3 Identified Needs

Through review and discussion of existing transportation challenges, past community feedback, the findings from the 2020 CRTP, and regional, state, and federal priorities, PVRTA identified the following needs to target in the 2025 CRTP:

- Expanding access to PVRTA services, including in low density population areas
- Providing robust and reliable fixed route and paratransit services
- Supporting regional economic development

- Improving operational efficiency continuously
- Providing a consistent level of transit funding
- Exploring and positioning PVRTA for future funding opportunities

3.4 Goals and Objectives

Starting with 2020 CRTP, an evaluation was conducted of the previous goals, objectives, needs, and recommendations. This information served as the basis for PVRTA staff to identify priorities, opportunities, and any potential barriers that will inform the 2025 CRTP. To identify goals and objectives, the evaluation focused on the priorities of PVRTA and its community and stakeholders. Additional consideration was given to regional goals, such as those of the Pioneer Valley Planning Commission (PVPC) and of major regional partners such as in housing and economic development. The evaluation also focused on the broader context, including Commonwealth policies and goals and federal considerations.

The overarching goals identified for the PVRTA 2025 CRTP include interconnectivity, service to key destinations, anticipating customer demand, sustainable funding, and efficient operations and service delivery, which are reflective of the agency's needs and opportunities for the next five years. The objectives associated with each of these five goals are as follows (in no order of priority):

- **Goal 1: Maximize mobility options for residents of the region**
 - Objective 1: Improve connectivity between the Northern and Southern Tiers.
 - Objective 2: Pursue innovative service delivery models and develop pilot programs.
 - Objective 3: Adjust existing service and/or implement new service to meet service demands of existing and potential customers.
 - Objective 4: Provide connectivity to adjacent service providers.
- **Goal 2: Deliver the service of choice**
 - Objective 1: Improve frequency and span of service.
 - Objective 2: Implement faster, more direct service along key corridors with connecting feeder services.
 - Objective 3: Identify opportunities to expand bike share options and other first mile/last mile solutions.
- **Goal 3: Obtain sustainable funding options**
 - Objective 1: Advocate for state contract assistance to include an automatic inflator to prevent level funding.
 - Objective 2: Identify and determine the feasibility of new funding partnerships.
 - Objective 3: Advocate for the continuation of state Fair Share Amendment funding and inclusion of an inflation adjustment component consistent with MBTA funding increases.
- **Goal 4: Operate in the most cost-effective and efficient way possible**
 - Objective 1: Examine route performance to determine service adjustments as needed.
 - Objective 2: Continue monitoring route and system performance.

- **Goal 5: Support economic development**
 - Objective 1: Coordinate with PVPC and member municipalities to integrate transit into land use planning and development/infrastructure plans.
 - Objective 2: Identify enhanced safety improvements at transit hubs and priority bus stops
 - Objective 3: Prioritize improvements that benefit disadvantaged communities as well as rural areas.
- **Goal 6: Develop a capital program that aligns with the Governor's Commission on the Future of Transportation**
 - Objective 1: Replace vehicles according to their useful life benchmark and the Transit Asset Management (TAM) Plan with financial and environmentally sustainable choices.
 - Objective 2: Reduce the amount of capital funding flexed to operating funds while maintaining or increasing service levels.
 - Objective 3: Examine facility infrastructure needs to address expanding service and to expand the alternative fuels fleet.

These goals and objectives were assessed against progress since the 2020 CRTP in an effort to identify opportunities to meet PVTA's needs. They were used to inform recommendations in this CRTP along with a detailed data assessment of PVTA's system from the last five years, input from stakeholder engagement efforts, and more.

4 Existing Conditions

A first step toward evaluating needs is to review existing conditions. This chapter provides a comprehensive assessment of PVRTA's existing conditions regarding transit services provided, ridership, and performance evaluation. This quantitative assessment directly feeds into the identification of needs over the next five years and helps to drive recommendations presented in Chapter 8.

4.1 Transit Service Overview

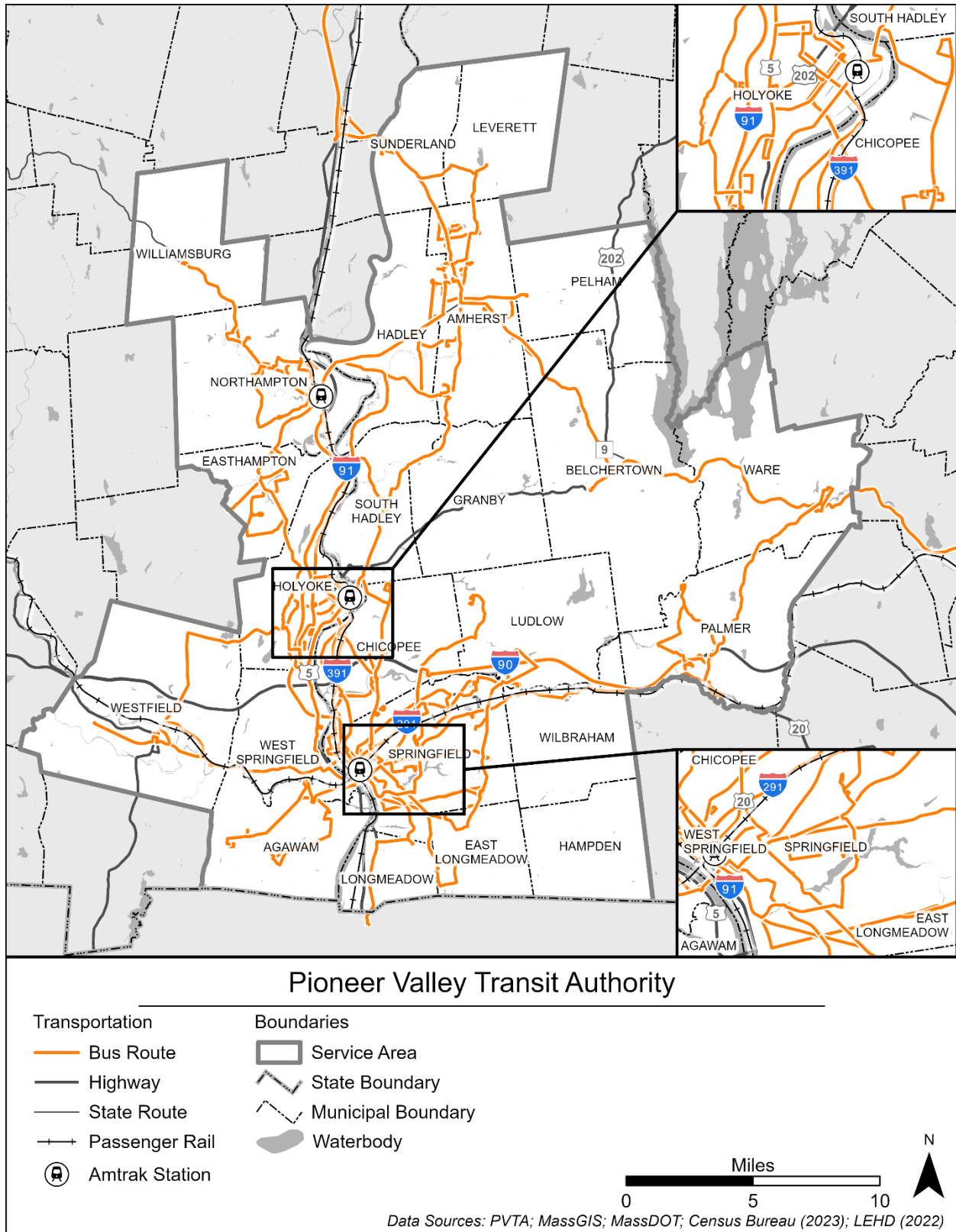
PVRTA was created by Massachusetts General Laws Chapter 161B in 1974 to provide oversight and coordination of public transportation within the Pioneer Valley region. PVRTA is the largest RTA in Massachusetts and fourth largest in New England, operating fixed route bus service, paratransit service, and senior van service.

PVRTA has 24 participating member communities and spans three counties and a diverse service area of 619 square miles containing urban, suburban, rural, and college communities. PVRTA member communities include the cities of Agawam, Chicopee, Easthampton, East Longmeadow, Holyoke, Northampton, Springfield, Westfield, and West Springfield and the towns of Amherst, Belchertown, Granby, Hadley, Hampden, Leverett, Longmeadow, Ludlow, Palmer, Pelham, South Hadley, Sunderland, Ware, Wilbraham, and Williamsburg. Additionally, PVRTA serves small sections of Southampton, Deerfield, and Enfield, Connecticut—three non-member communities—in order to connect with adjacent transit systems and provide mobility throughout the region.

PVRTA's service area is served by 43 fixed routes, including 34 local routes, 6 express routes, and 3 deviated routes. PVRTA also provides complementary paratransit services to eligible individuals residing within the geographic boundaries of the member communities or within $\frac{3}{4}$ mile of a fixed route in compliance with the ADA. In addition, PVRTA provides shared ride, demand response senior van service, also known as "Senior Dial-A-Ride," to residents 60 years of age and older in all member communities.

The full PVRTA service area is depicted on Figure 3.

Figure 3. PVTA Service Area



Source: AECOM (2025)

On an annual basis, PVRTA carries over 8 million passengers, traveling approximately 6.7 million miles and operating over 440,000 revenue hours, with an operating budget of nearly \$60 million (Table 2).

Table 2. Statistics by Service (FY 2024)

FY 2024 Data	Fixed Route	Percentage of Total	Demand Response	Percentage of Total	Total
Ridership	7,830,329	97.7%	186,916	2.3%	8,017,245
Revenue Hours	311,848	70.3%	131,508	29.7%	443,356
Revenue Miles	4,704,412	70.4%	1,974,218	29.6%	6,678,630
Operating Costs	\$49,296,381	82.3%	\$10,616,963	17.7%	\$59,913,344

Source: MassDOT (2025)

4.1.1 Service Descriptions

This section provides a summary of transit services currently provided by PVRTA.

4.1.1.1 Fixed Routes

PVRTA's service area is served by 45 fixed routes, outlined in Table 3, including two new routes that were not in operation for all of FY 2024 and one route that operated in FY 2024 but has since been discontinued. Route PG and Route X94 are the two new routes that are not included in the analysis. Route 36 was a school year-only route that has since been replaced by Route 38.

PVRTA's service area is split into the Northern and Southern Tier routes. Northern Tier routes largely serve college communities in Amherst and Northampton. Southern Tier routes are concentrated in the Springfield area and extend out toward neighboring communities such as Longmeadow, Agawam, Chicopee, and Westfield.

PVRTA also operates "Tripper" service, defined by the Federal Transit Administration (FTA) as regularly scheduled transportation service that is open to the public and is designed or modified to accommodate the needs of school students and personnel (FTA 2018). Tripper data are not included in route-level analyses.

Table 3. Fixed Routes^a

Route Number	Route Name	Service Type	Service Destination
Northern Tier			
30	North Amherst/Old Belchertown Road	Fixed Route	Puffton Village, UMass, downtown Amherst
31	Sunderland/South Amherst	Fixed Route	UMass, downtown Amherst
33	Puffers Pond/Shoppers Shuttle	Fixed Route	Stop & Shop, UMass, Amherst Survival Center

Route Number	Route Name	Service Type	Service Destination
34	Campus Shuttle Northbound	Fixed Route	UMass campus
35	Campus Shuttle Southbound	Fixed Route	UMass campus
36 ^b	Olympia Drive/Atkins Farm	Fixed Route	Atkins Farm, UMass, downtown Amherst
38	Mount Holyoke/Hampshire/Amherst/UMass	Fixed Route	UMass, Amherst College, Hampshire College, Mount Holyoke, downtown Amherst
39	Smith/Hampshire	Fixed Route	Smith College, Hampshire College
39E	Smith/Mt Holyoke	Express Route	Smith College, Mt Holyoke College
R41	Northampton/Easthampton/HCC/Holyoke Mall	Fixed Route	Downtown Northampton, Holyoke Mall, Easthampton, HCC
R42	Northampton/Williamsburg/VA Medical	Fixed Route	Academy of Music, Salvo House, VA Medical Center
B43	Northampton/Hadley/ Amherst	Fixed Route	Smith College, Hampshire College, UMass, Amherst College
R44	Florence Center/Florence Heights	Fixed Route	Academy of Music, Salvo House, Hampshire County House of Corrections
45	Belchertown Center/UMass	Fixed Route	Belchertown Center, UMass, Amherst Center
46	South Deerfield/UMass	Fixed Route	UMass, South Deerfield, Whately Park & Ride
B48	Northampton/Holyoke via Route 5	Fixed Route	HTC, downtown Northampton
B79	Amherst-Worcester Intercity Service	Fixed Route	UMass, Belchertown, Ware, Worcester, MBTA Station

Route Number	Route Name	Service Type	Service Destination
NE	Nashawannuck Express	Fixed Route	Easthampton Circulator
PG ^c	Pelham to Greenfield	Regional	Pelham, Amherst, Greenfield
Southern Tier			
G1	Chicopee/Sumner-Allen/Canon Circle	Fixed Route	Chicopee Big Y, Chicopee Center, Union Station, Canon Circle
G2	East Springfield via Carew/Belmont-Dwight	Fixed Route	East Springfield, Mercy Medical Center, Union Station, Big Y, East Village Place
G3	Springfield Plaza via Liberty/King-Westford	Fixed Route	Springfield Plaza, SAAB Court, Union Station
B4	Plainfield Street	Fixed Route	Union Station, Baystate Medical Offices
G5	Springfield/Dickinson/Jewish Home/Longmeadow	Fixed Route	Union Station, Mass Mutual Enfield, Longmeadow
B6	Ludlow via Bay Street	Fixed Route	Union Station, Springfield Central High School, Ludlow Big Y
B7	Wilbraham Big Y via State Street/Boston Road	Fixed Route	Big Y, Union Station, Walmart
R10	Westfield State University/West Springfield	Fixed Route	Union Station, Walmart, Westfield Center, Westfield State University
P11	Holyoke Community College Express	Fixed Route	Union Station, Springfield Post Office, Holyoke College
B12	Stonybrook Express	Express Route	Union Station, Hampden County Correctional Facility

Route Number	Route Name	Service Type	Service Destination
R14	Pheasant Hill-Feeding Hills/Springfield	Fixed Route	Union Station, West Springfield, Feeding Hills Center
B17	Wilbraham Big Y via Worthington/Wilbraham Road	Fixed Route	Big Y, Union Station
P20	Holyoke/Springfield via Riverdale Street	Fixed Route	Union Station, HTC, Holyoke Mall
R14	Pheasant Hill-Feeding Hills/Springfield	Fixed Route	Union Station, West Springfield, Feeding Hills Center
P21	Holyoke/Springfield via Chicopee	Fixed Route	Union Station, HTC, Chicopee Center
P21E	Holyoke/Springfield via Chicopee	Express Route	Union Station, HTC
R22	Holyoke-Chicopee via Grattan	Fixed Route	Big Y, HTC
B23	Northampton/Hadley/Amherst	Fixed Route	HTC, Westfield Center
G73E	Brennan Express	Fixed Route	Union Station, Holyoke Mall, Academy of Music
X90	Inner Crosstown	Fixed Route	HTC, East Longmeadow, Springfield Plaza, Chicopee
X92	Mid-City Crosstown	Fixed Route	Union Station, Sci Tech, Memorial Industrial Park
X94 ^b	Outer Crosstown	Fixed Route	Ludlow & Longmeadow Big Ys, Colonial Estates, Five Town Plaza
PS	Palmer Shuttle	Fixed Route	Big Y, Palmer Library, Wing Hospital
WS	Ware Shuttle	Fixed Route	Wilbraham Big Y, Palmer Library, Palmer Big Y, Ware Walmart, Ware Big Y, Ware Center

Route Number	Route Name	Service Type	Service Destination
R24	Cabot-Pleasant Street-Holyoke Medical Center-Sargeant Street	Fixed Route	HTC, Holyoke Hospital, Holyoke Mall, Holyoke Amtrak Station
R29	Amherst/Holyoke Mall via Route 116	Fixed Route	Holyoke Mall, HTC, UMass

Source: PVTa (2025)

^a Given that PVTa continues to make service improvements, some service improvements may not be reflected in the table.

^b Route was in operation between FY 2020 and FY 2024 but is no longer in service.

^c Route was not in service during FY 2024 and is a new route.

4.1.1.2 Demand Response

PVTa provides complementary paratransit services to eligible individuals residing within the geographic boundaries of the member communities or within $\frac{3}{4}$ mile of a fixed route in compliance with the ADA. This service provides a shared ride, door-to-door trip and is available all days and times when fixed route service is operating.

Additionally, as previously mentioned, PVTa provides shared ride, demand response senior van service, also known as "Senior Dial-A-Ride," to residents 60 years of age and older in all 24 member communities in the Pioneer Valley. Senior van service is offered on a space available basis, with priority given to certified ADA passengers in accordance with federal law. Senior van service is also available through COAs within the service area, including Northampton COA, Agawam COA, and East Longmeadow COA.

4.1.2 Provided Service

Most fixed routes operate seven days a week with some exceptions for a few university weekday-only routes such as Route B23 and Route P11 (Table 4). Headways on weekdays vary depending on the route and time of day, with most fixed routes operating at frequencies ranging from as frequent as every 20 minutes up to 60-minute frequencies. Saturday headways are largely consistent with weekday headways, though many routes operate on 60-minute headways on Sundays. Span of service and frequencies shown in Table 4 represent peak service days.

Table 4. Span of Service and Frequency

Route Number	Weekday Service Hours	Saturday Service Hours	Sunday Service Hours	Weekday Headway (Minutes)	Saturday Headway (Minutes)	Sunday Headway (Minutes)	Days Operated
Northern Tier							
30	7:07 AM – 11:21 PM	7:30 AM – 1:25 AM	10:16 AM – 11:25 PM	15-20	30-60	60	7
31	7:00 AM – 11:43 PM	7:08 AM – 1:20 AM	9:54 AM – 11:36 PM	15	35-70	50	7

Route Number	Weekday Service Hours	Saturday Service Hours	Sunday Service Hours	Weekday Headway (Minutes)	Saturday Headway (Minutes)	Sunday Headway (Minutes)	Days Operated
33	7:09 AM – 9:12 PM	10:49 AM – 7:17 PM	10:49 AM – 7:17 PM	35	40	80	7
34	7:18 AM – 8:22 PM	N/A	N/A	20-25	N/A	N/A	5
35	7:15 AM – 12:18 AM	11:05 AM – 12:18 AM	11:05 AM – 11:39 PM	15	45	45	7
36 ^a	8:00 AM – 8:00 PM	8:00 AM – 8:00 PM	N/A	60	60	N/A	6
38	7:00 AM – 11:45 PM	9:15 AM – 1:50 AM	9:25 AM – 12:00 AM	30	40	80	7
39	7:30 AM – 7:10 PM	5:30 PM – 11:15 PM	5:30 PM – 11:15 PM	40	70	70	7
45	6:30 AM – 8:19 PM	N/A	N/A	120	N/A	N/A	5
46	7:00 AM – 6:04 PM	N/A	N/A	2 trips per day	N/A	N/A	5
39E	6:50 AM – 7:00 PM	N/A	N/A	60	N/A	N/A	5
R41	6:15 AM – 7:40 PM	8:00 AM – 5:45 PM	8:00 AM – 5:45 PM	60	60	60	7
R42	5:45 AM - 8:55 PM	7:10 AM - 7:00 PM	7:10 AM - 7:00 PM	60	60	60	7
B43	6:00 AM – 2:20 AM	6:00 AM – 2:20 AM	8:00 AM – 10:10 PM	20	30-60	60	7
R44	5:50 AM – 7:10 PM	7:02 AM – 7:43 PM	10:55 AM – 5:32 PM	70	60	60	7
B48	7:00 AM – 7:58 PM	9:00 AM – 6:58 PM	9:00 AM – 6:58 PM	60	60	60	7
B79	7:05 AM – 7:20 PM	7:10 AM – 8:30 PM	11:10 AM – 8:30 PM	3 trips per day	3 trips per day	3 trips per day	5
NE	10:45 AM – 8:15 PM	10:45 AM – 8:15 PM	10:45 AM – 6:00 PM	90	90	90	7
PG ^b	8:15 AM - 4:06 PM	N/A	N/A	3 trips per day	3 trips per day	3 trips per day	5

Southern Tier

G1	5:35 AM – 10:07 PM	6:00 AM – 9:48 PM	7:00 AM – 8:20 PM	20	30	45	7
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Route Number	Weekday Service Hours	Saturday Service Hours	Sunday Service Hours	Weekday Headway (Minutes)	Saturday Headway (Minutes)	Sunday Headway (Minutes)	Days Operated
G2	5:00 AM – 10:22 PM	5:37 AM – 9:30 PM	9:00 AM – 7:00 PM	30	30	60	7
G3	5:50 AM – 7:50 PM	7:00 AM – 6:47 PM	9:00 AM – 5:58 PM	30	30	60	7
B4	5:55 AM – 6:58 PM	6:00 AM – 5:58 PM	9:00 AM – 6:43 PM	45	30	60	7
G5	6:05 AM – 7:50 PM	6:30 AM – 5:58 PM	7:00 AM – 5:58 PM	60	30-60	60	7
B6	5:10 AM – 10:39 PM	7:00 AM – 9:18 PM	8:30 AM – 7:38 PM	20	30	45	7
B7	5:00 AM – 10:59 PM	5:00 AM – 10:04 PM	9:00 AM – 8:00 PM	20-30	20	20	7
R10	5:00 AM – 11:22 PM	6:00 AM – 9:37 PM	9:00 AM – 7:32 PM	30-45	60	60	7
P11	7:30 AM – 9:48 PM	N/A	N/A	45-60	N/A	N/A	5
B12	1:55 PM - 6:58 PM	1:55 - 6:58 PM	N/A	3 trips per day	3 trips per day	3 trips per day	6
R14	6:10 AM - 8:02 PM	7:10 AM - 6:28 PM	8:30 AM - 5:48 PM	60	60	60	7
B17	5:55 AM – 7:23 PM	7:00 AM – 6:50 PM	7:00 AM – 6:50 PM	45	45	45	7
G19	6:20 AM – 8:06 PM	7:10 AM – 6:53 PM	7:10 AM – 6:53 PM	60	60	60	7
P20	5:30 AM – 11:21 PM	6:00 AM – 10:32 PM	9:00 AM – 7:50 PM	20	20	30	7
P21	5:00 AM – 9:08 PM	8:00 AM – 9:08 PM	8:00 AM – 7:13 PM	30	30	45	7
P21E	6:00 AM – 8:10 PM	8:00 AM – 7:11 PM	9:00 AM – 6:10 PM	30	30	30	7
R22	6:50 AM – 7:36 PM	7:00 AM – 7:08 PM	7:00 AM – 7:08 PM	67	60	60	7
B23	5:32 AM – 7:04 PM	N/A	N/A	60	N/A	N/A	5
R24	8:00 AM – 4:55 PM	8:00 AM – 4:55 PM	8:00 AM – 4:55 PM	60	60	60	5

Route Number	Weekday Service Hours	Saturday Service Hours	Sunday Service Hours	Weekday Headway (Minutes)	Saturday Headway (Minutes)	Sunday Headway (Minutes)	Days Operated
R29	7:25 AM – 7:50 PM	7:40 AM – 8:20 PM	7:45 AM – 6:10 PM	30	45	90	7
G73E	6:00 AM – 10:15 PM	7:00 AM – 10:15 PM	7:00 AM – 9:15 PM	30	30	30	7
X90	6:15 AM – 9:30 PM	7:05 AM – 9:30 PM	9:00 AM – 5:10 PM	60	60	60	7
X92	6:00 AM – 6:39 PM	5:50 AM – 5:58 PM	7:20 AM – 5:48 PM	45	45	45	7
X94 ^b	9:00 AM - 8:43 PM	9:00 AM - 4:45 PM	9:00 AM - 4:45 PM	60	60	60	7
PS	7:00 AM – 5:59 PM	8:40 AM – 4:23 PM	8:40 AM – 4:23 PM	45	90	90	7
WS	7:00 AM - 5:59 PM	7:00 AM - 5:59 PM	7:00 AM - 5:59 PM	90-110	90-110	90-110	7

Source: PVRTA (2025)

N/A = Not Applicable

^a Route was in operation between FY 2020 and FY 2024 but is no longer in service.

^b Route was not in service during FY 2024 and is a new route.

ADA paratransit service is available within ¾ mile of regular fixed routes all days and times the fixed route operates. Hours of operation for senior van service are Monday through Saturday from 8:00 AM to 9:00 PM.

4.1.3 Funding

The largest source of PVRTA's operating funds in FY 2024 came from state funding (53.1 percent), which represents an increase in the share of state funding compared to the year prior (Table 5). Total state funding increased for PVRTA to support fare-free service and included an increase in state contract assistance for operating costs. For more information about state support of fare-free service, refer to Appendix A.

The increase in state funding was offset by a reduction in federal funding in FY 2024. Federal funding varied from FY 2022 to FY 2024 with a peak in FY 2023 of nearly \$11 million in federal funds (19 percent of total funding). Federal funding in FY 2024 was significantly lower with just under \$6 million (about 18 percent of total funding).

Farebox revenue also peaked in FY 2023 with nearly \$6.3 million, representing about 11 percent of total revenue. PVRTA's farebox revenue declined by approximately 18 percent from FY 2023 to FY 2024, though fares still made up nearly 10 percent of total revenue in FY 2024.

Other sources of funding include interest revenue, administrative fees from other organizations, and identification card fees. Overall, total funding increased by over \$7.5 million between FY 2022 and FY 2024 largely due to an increase in funding from the state and despite reductions in farebox revenues and federal funding.

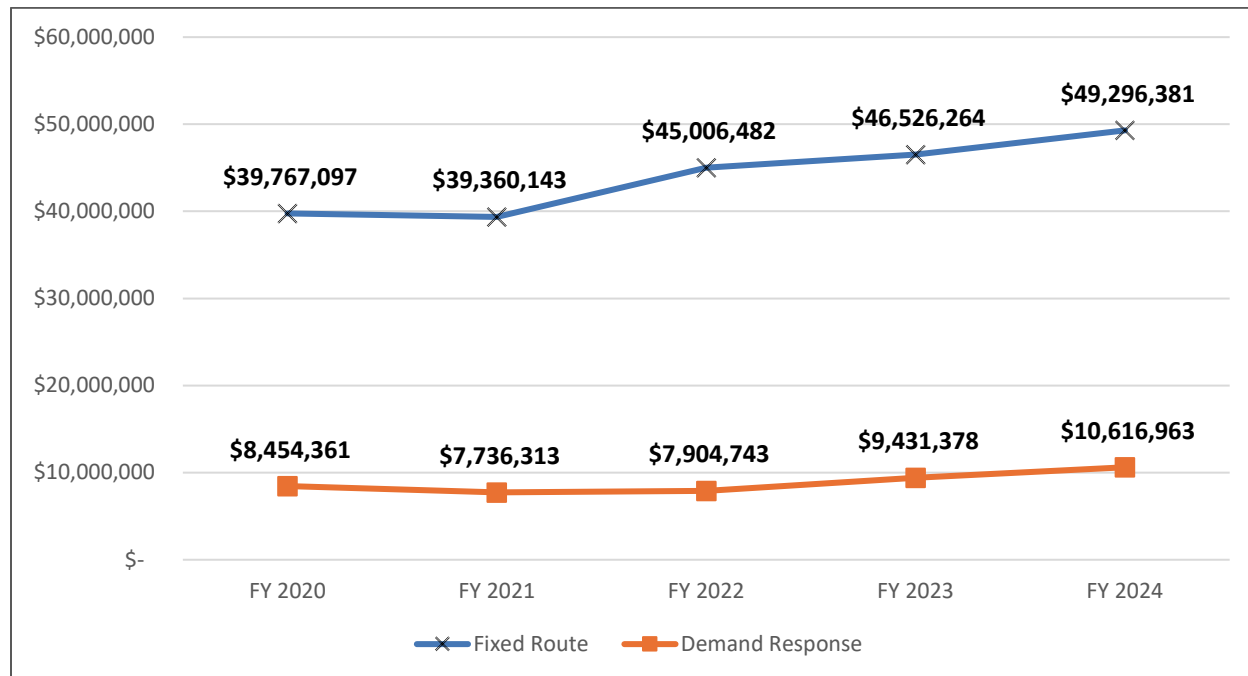
Table 5. Operating Funding Sources (FY 2022-FY 2024)

Funding Source	FY 2022	Percentage of FY 2022	FY 2023	Percentage of FY 2023	FY2024	Percentage of FY 2024
Federal	\$9,543,302	9.8%	\$10,822,018	19.0%	\$5,945,280	17.9%
State	\$28,311,527	63.3%	\$29,049,015	50.9%	\$38,561,250	53.1%
Local	\$9,635,895	16.6%	\$9,876,792	17.3%	\$10,123,712	18.1%
Farebox	\$5,174,271	8.5%	\$6,274,786	11.0%	\$5,158,711	9.7%
Other	\$680,366	1.8%	\$1,064,281	1.9%	\$1,107,533	1.3%
TOTAL	\$53,345,361	100.0%	\$57,086,892	100.0%	\$60,896,486	100.0%

Source: National Transit Database (NTD) (2020-2024)

The annual operating cost for fixed route service increased year-over-year from FY 2020 to FY 2024, climbing from \$39.8 million to \$49.3 million, representing a 24 percent increase in total cost (Figure 4). On a cost per revenue hour basis, costs increased over the five-year period from about \$13.20 per hour to \$15.10 per hour for bus service (a 14.6 percent increase). This operating cost increase follows national trends as costs for various goods and services have increased across the board during a period of high inflation.

Demand response operating costs also increased significantly, growing by over 25 percent to exceed \$10.6 million in FY 2024.

Figure 4. Annual Operating Cost by Mode (FY 2020-FY 2024)

Source: NTD (2020-2024)

Table 6 shows farebox and contract revenue for PVTA, by year. Revenue for both fixed route and demand response service declined sharply from FY 2020 to FY 2021 because of the COVID-19 pandemic. The fiscal year for transit agencies is July 1 through June 30. As the pandemic began in March 2020, ridership for FY 2020 was impacted. Additionally, PVTA

operated fare-free service for select periods in FY 2023 and FY 2024. State funding was provided to offset lost revenue, shown in Table 5.

Demand response service revenue was lowest in FY 2021, approximately half of FY 2020 revenue. Revenues for both fixed route and demand response increased from FY 2021 to FY 2022, and again in FY 2023. Total revenue in FY 2024 was approximately 90 percent of FY 2020 total revenue.

Table 6. Farebox Revenue by Fiscal Year and Service Type (FY 2020-FY 2024)

Service Type	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Bus	\$5,103,111	\$3,013,726	\$4,526,752	\$5,768,265	\$4,741,083
Demand Response	\$586,382	\$276,208	\$647,519	\$506,521	\$417,628
TOTAL	\$5,689,493	\$3,289,934	\$5,174,271	\$6,274,786	\$5,158,711

Source: NTD (2020-2024)

Sources for capital expenditures are shown in Table 7. The share of state funding was highest in FY 2024 with approximately 26 percent of total funds. The source of remaining funding was federal funds. In FY 2022 and FY 2023, state funding comprised a smaller percentage of overall funding compared to FY 2024.

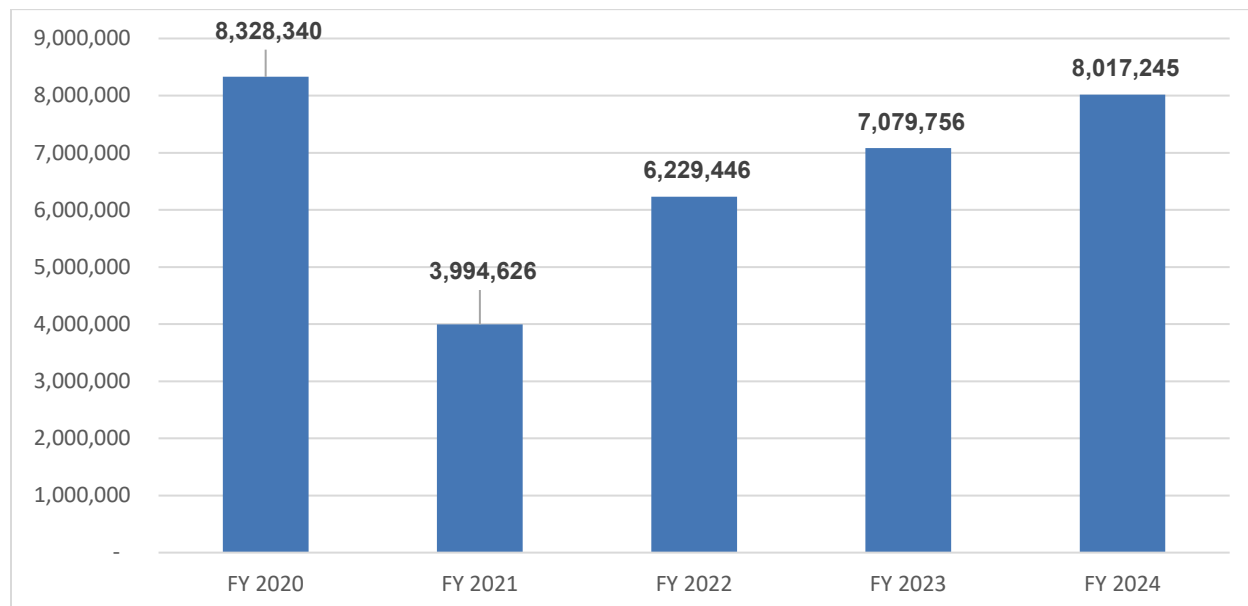
Table 7. Capital Expenditure Sources (FY 2022-FY 2024)

Funding Source	FY 2022	Percentage of FY 2022	FY 2023	Percentage of FY 2023	FY 2024	Percentage of FY 2024
Federal	\$13,007,352	82.2%	\$13,162,136	75.7%	\$18,083,616	74.0%
State	\$2,819,994	17.8%	\$4,220,873	24.3%	\$6,366,626	26.0%
Local	\$0	0.0%	\$0	0.0%	\$0	0.0%
Farebox	\$0	0.0%	\$0	0.0%	\$0	0.0%
Other	\$0	0.0%	\$0	0.0%	\$0	0.0%
TOTAL	\$15,827,346	100.0%	\$17,383,009	100.0%	\$24,450,242	100.0%

Source: NTD (2024)

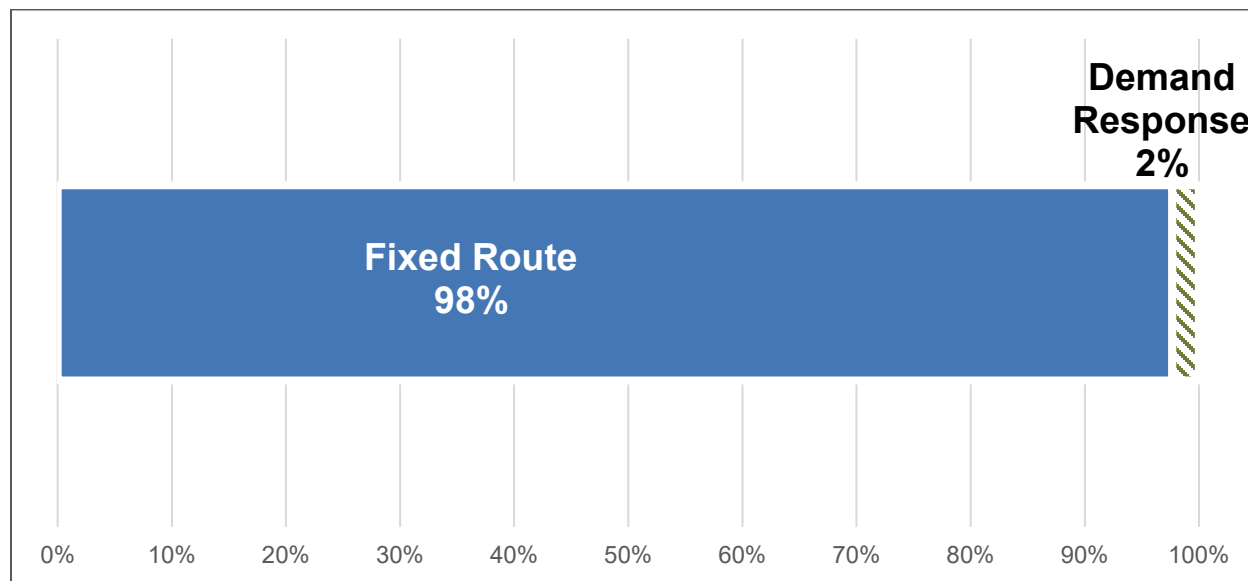
4.2 Ridership and Service Operations

PVTA's overall system ridership, inclusive of all modes, experienced a sharp decline between FY 2020 and FY 2021, dropping over 50 percent (Figure 5). Ridership began to recover in FY 2022, though system ridership has not fully recovered to FY 2020 levels. Between FY 2021 and FY 2022, ridership increased by nearly 56 percent, though this growth has since slowed. Between FY 2022 and FY 2023, ridership increased nearly 14 percent, and between FY 2023 and FY 2024, ridership increased by an additional 13 percent.

Figure 5. Annual System Ridership (FY 2020-FY 2024)

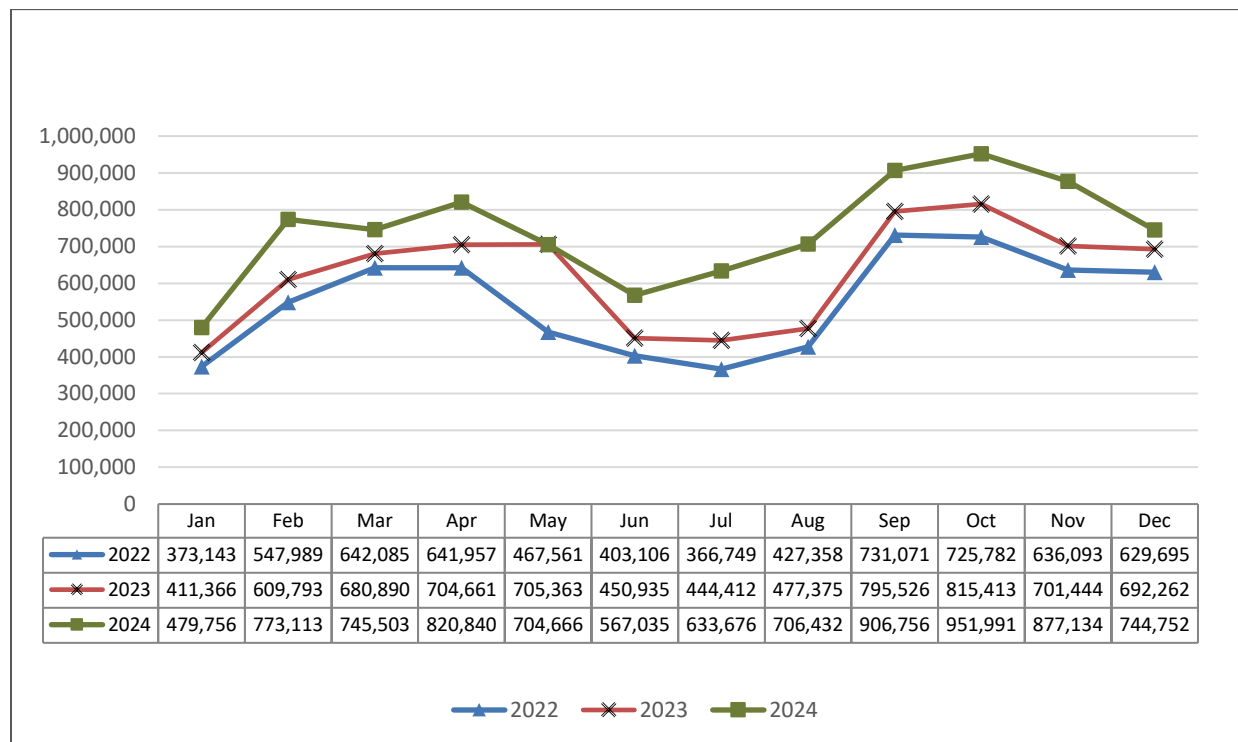
Source: MassDOT (2025)

In FY 2024, PVRTA provided the majority of trips on its fixed bus routes, with only 2 percent of trips taken on demand response services (Figure 6).

Figure 6. Ridership Breakdown by Service Type (FY 2024)

Source: MassDOT (2025)

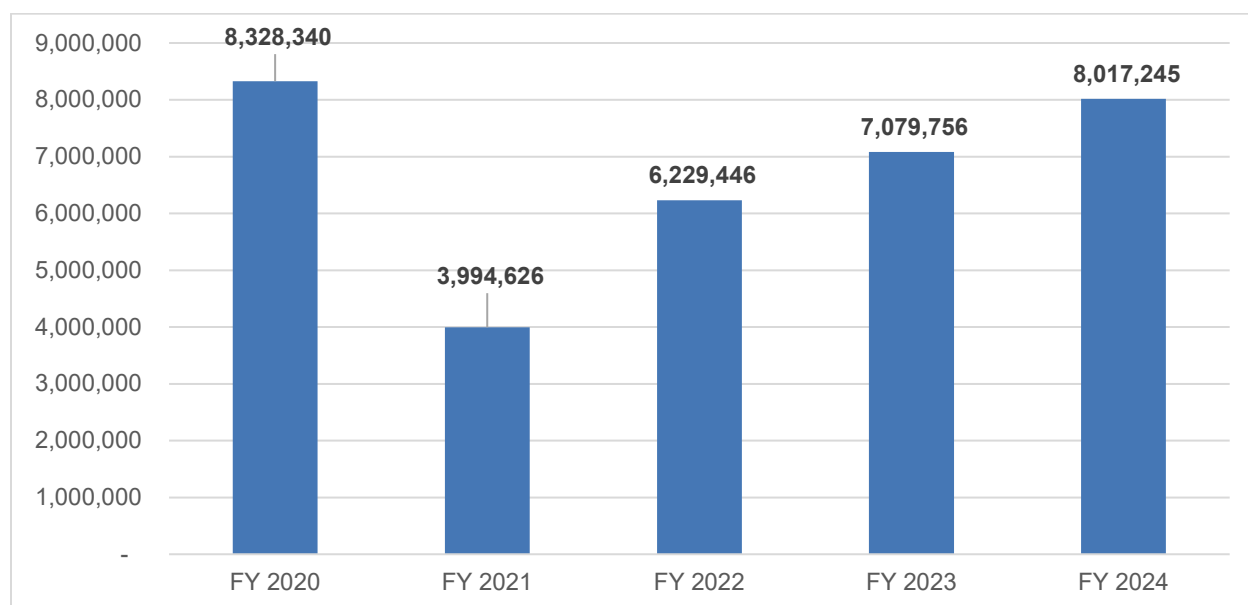
Monthly ridership from 2022 to 2024 indicates that ridership trends upward from the start of the calendar year until May (Figure 7). Ridership then decreases over the summer months until students return in August. Many of PVRTA's routes in the Northern Tier serve higher educational campuses, including University of Massachusetts (UMass). Student school-based trips to these college campuses increases ridership by approximately 200,000 riders during the months in which schools are in session.

Figure 7. Monthly Ridership Trends (2022-2024)

Source: MassDOT (2025)

4.2.1 Fixed Route Ridership

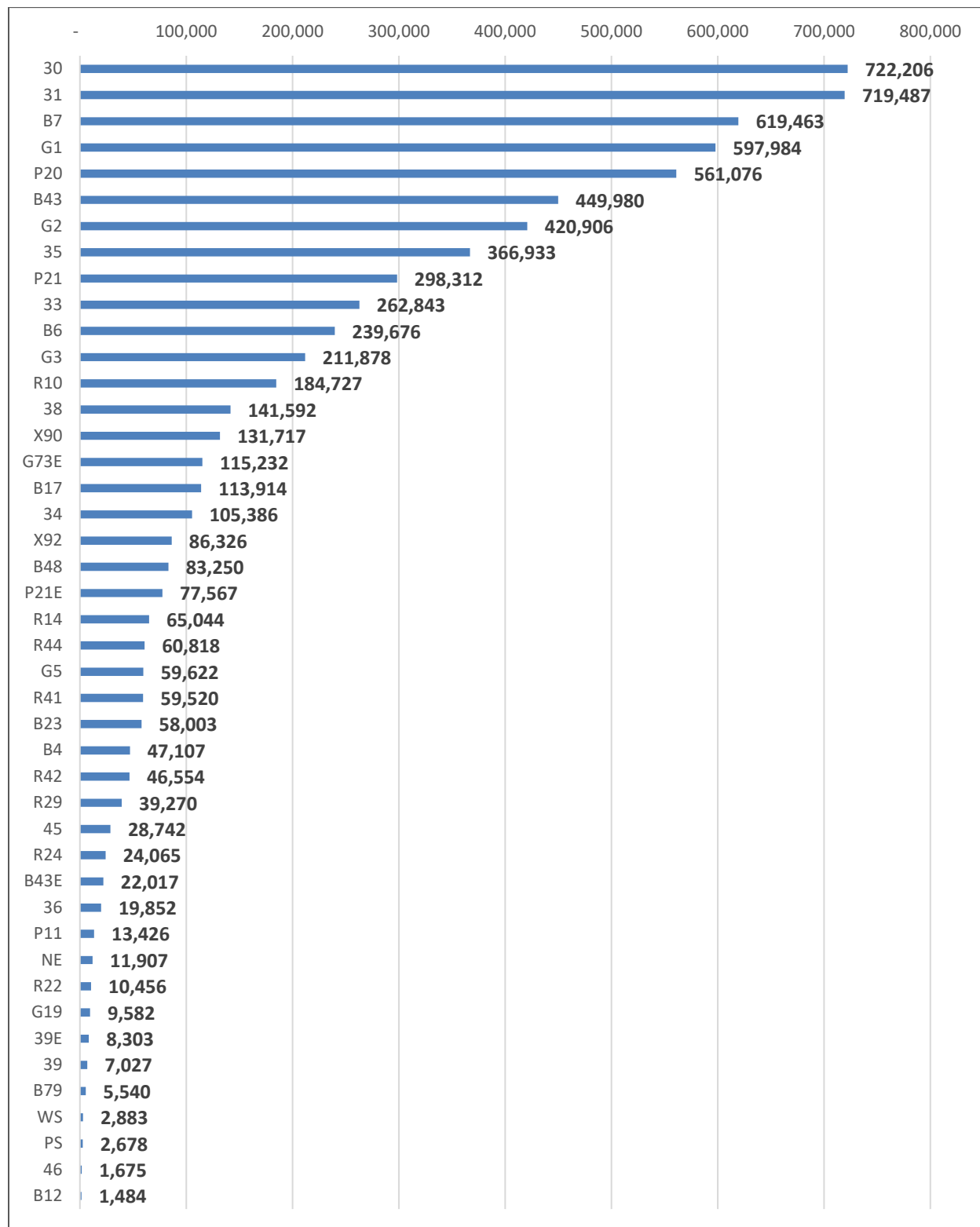
Fixed route ridership experienced a low in FY 2021 with a total of about 3.9 million riders (Figure 8). Ridership rebounded in FY 2022 to reach about 6 million riders. In FY 2024, ridership rose to a total rider count of over 7.4 million, still approximately 700,000 riders short of FY 2020 total ridership.

Figure 8. Fixed Route Annual Ridership (FY 2020-FY 2024)

Source: PVRTA (2025)

Figure 9 shows FY 2024 ridership by route. Note that Tripper route data are not included as this service is targeted towards providing transportation to and from school for Holyoke and Springfield Middle and High School students. At a route level, Route 31, Route 30, and Route B7 have the greatest number of riders annually across the PVTa fixed route network. Route 30 and Route 31 serve the Amherst area in PVTa's Northern Tier and provide service to North Amherst, UMass campus, and South Amherst. Route B7 connects central Springfield with destinations along State Street/Boston Road including the Big Y and Walmart shopping centers.

Route 46, Route B12, and Route PS (Palmer Shuttle) represent the three lowest ridership routes, in ascending order. Route 46 also serves the UMass area, North Amherst, Sunderland, and South Deerfield along Sunderland Road/Amherst Road. This route operates two daily round trips and did not operate weekend service in FY 2024. Route B12 is a limited stop route that originates in downtown Springfield and travels eastward along Interstate 291. This route operates three daily round trips and does not operate on Sundays. Route PS services the Town of Palmer with early morning and late afternoon trips to Springfield. This route operates in a large one-way loop, which may inhibit ridership.

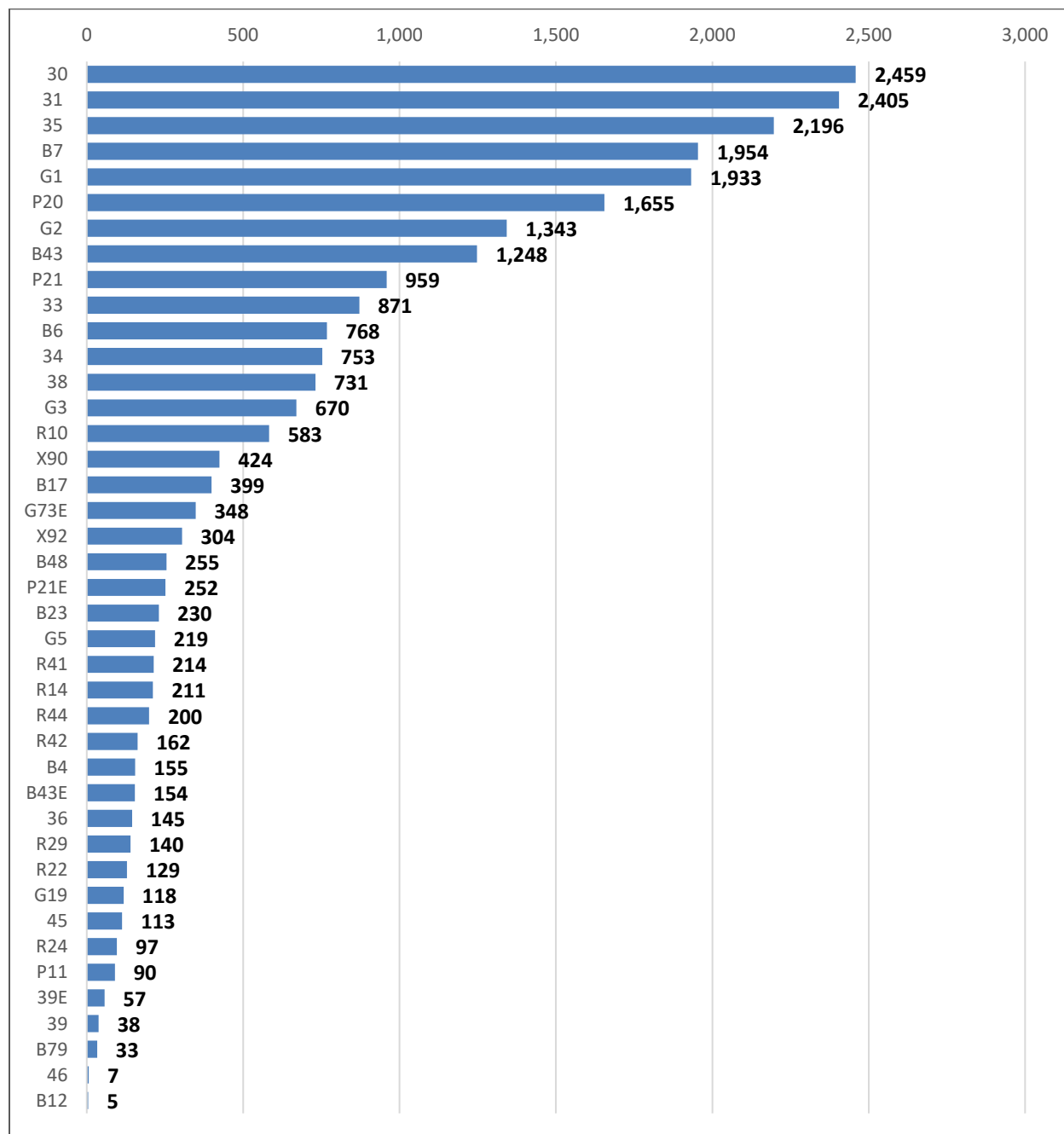
Figure 9. Annual Ridership by Route (FY 2024)

Source: PVTA (2025)

Route 31, Route 30, and Route B7 are the fixed routes with the highest average weekday ridership across the system, and the lowest ridership routes on weekdays are Route 46, Route B79, and Route B12 (Figure 10). The lowest ridership routes are infrequent, limited service commuter routes. Route B79 is an intercity route that travels between Amherst and Worcester

via Belchertown. The route operates three daily round trips four days per week and two trips on Sundays- no service is available on Tuesdays and Wednesdays.

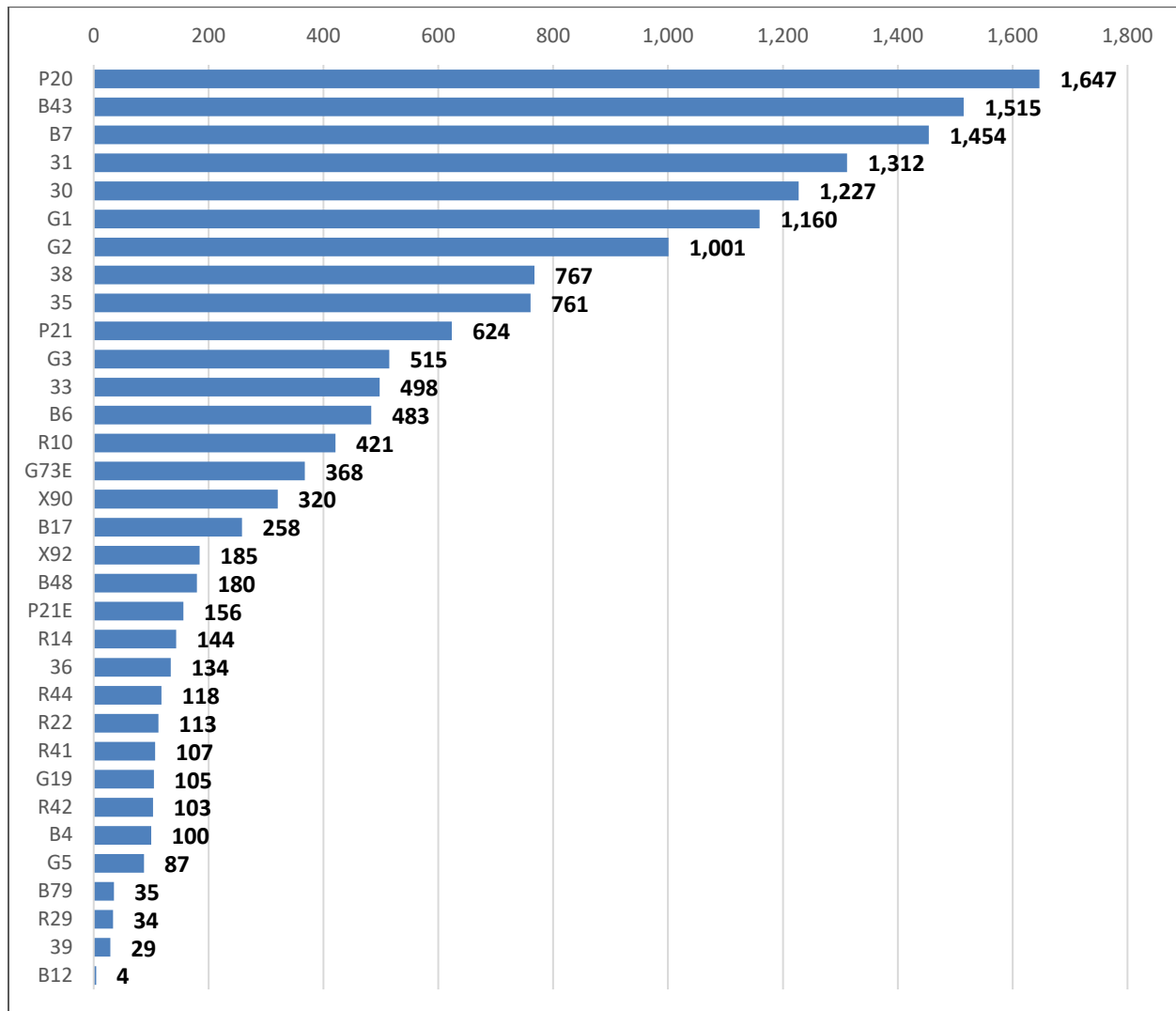
Figure 10. Weekday Average Ridership by Route (FY 2024)



Source: PVTA (2025)

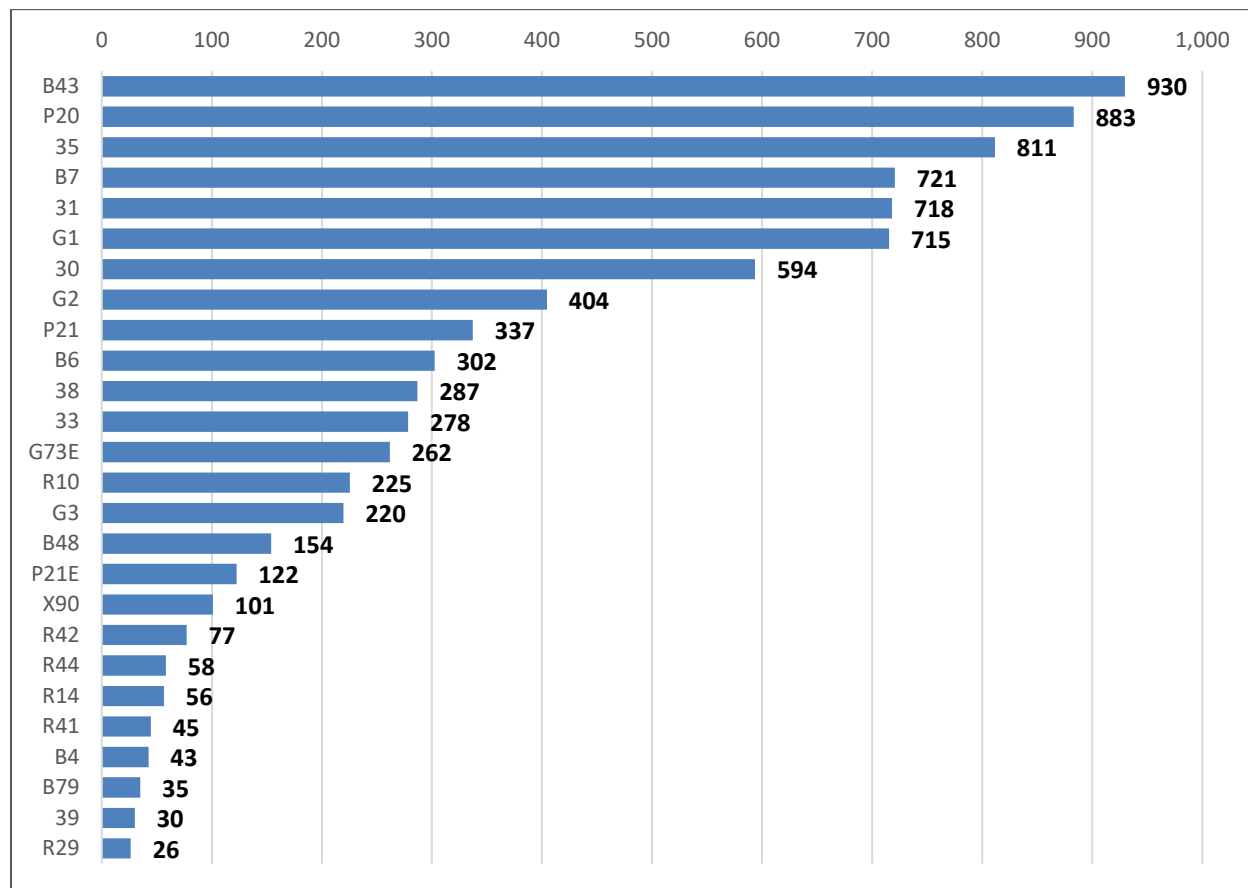
On weekends, average ridership trends diverge from weekday ridership trends. The fixed routes with the highest ridership on Saturdays are Route P20, Route B43, and Route B7 (Figure 11). Route P20 connects central Holyoke with shopping destinations such as the Holyoke Shopping Center and Holyoke Mall. Route B43 travels between Amherst and Northampton via Hadley and serves UMass Amherst. As described previously, Route B7 extends from central Springfield along State Street to Walmart. On Sundays, the highest ridership routes are again Route B43, followed by Route P20 and Route B7 (Figure 12).

Figure 11. Saturday Average Ridership by Route (FY 2024)



Source: PVTA (2025)

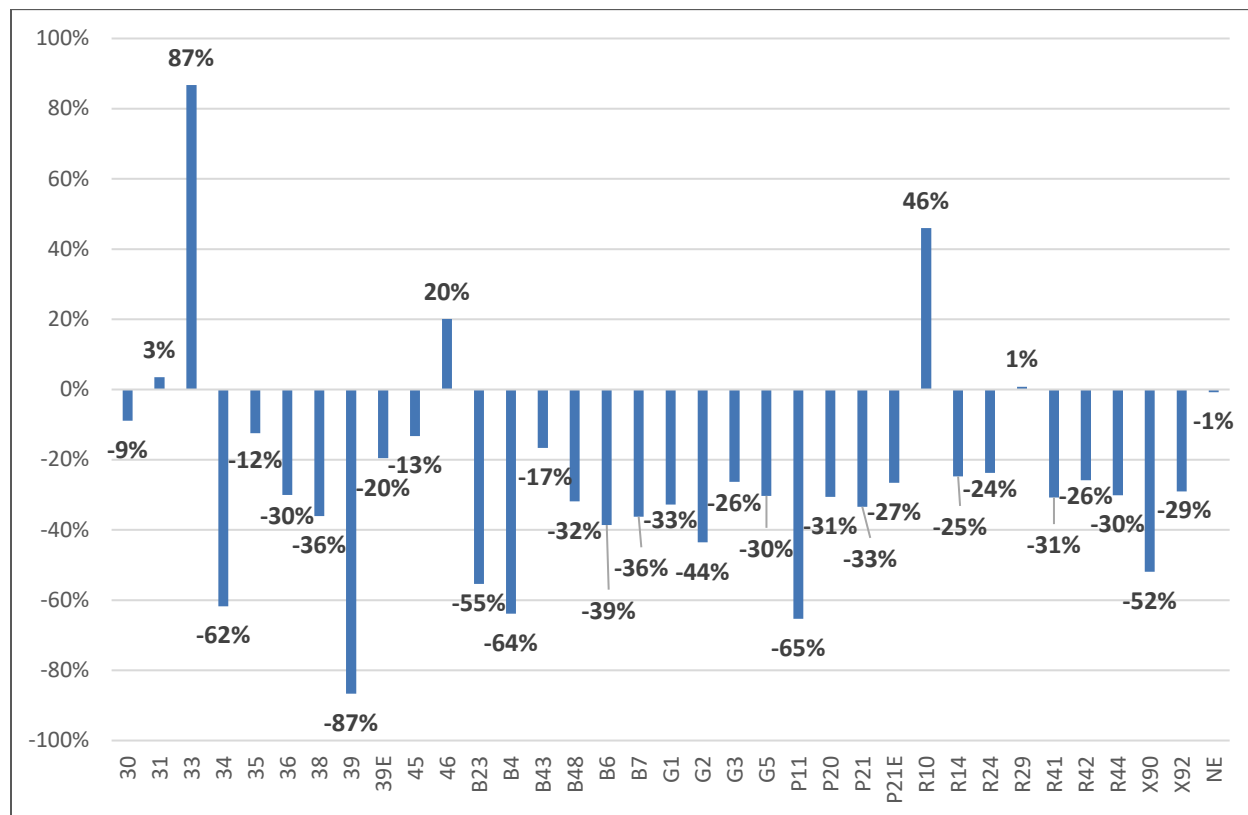
Figure 12. Sunday Average Ridership by Route (FY 2024)



Source: PVTA (2025)

For most routes, total ridership is down compared to FY 2019 with few exceptions. Several routes, including Route B12, Route B79, Route G19, Route G73, Route WS, and Route PS, were not included in the comparison as these routes were not in operation or data were not available for FY 2019. The fixed routes with the greatest decrease in average ridership are Route 39 (–87 percent), Route P11 (–65 percent), and Route B4 (–64 percent) (Figure 13).

Many routes experienced small decreases in ridership and three routes experienced ridership growth. Route 33, the shopping shuttle connecting UMass with shopping destinations, experienced an 87 percent increase in ridership from FY 2019 to FY 2024. Route 46, another UMass route, also experienced growth from FY 2019 to FY 2024 (20 percent). Route R10, which connects Springfield to Westfield State University and major shopping destinations, also experienced growth from FY 2019 to FY 2024 (46 percent).

Figure 13. Average Ridership Change from FY 2019-FY 2024

Source: PVRTA (2020, 2025)

4.2.2 Fixed Route Operations

PVRTA's annual fixed route operating statistics are broken down in Table 8. This table compares ridership, service hours, distance served, and total operating costs between FY 2020 and FY 2024. After the sharp drop in ridership in FY 2021, ridership increased year-over-year from FY 2021 to FY 2024. Revenue hours remained relatively steady around 300,000 hours between FY 2020 and FY 2024 with some fluctuations between years. Operating costs for fixed route operations increased from FY 2020 to FY 2024.

Table 8. Annual Fixed Route Operating Statistics (FY 2020-FY 2024)

Statistic	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Ridership	8,131,759	3,885,177	6,079,372	6,902,780	7,830,329
Revenue Hours	330,100	332,765	344,487	315,700	311,848
Revenue Miles	4,344,719	4,329,553	4,732,080	4,546,294	4,704,412
Operating Costs	\$39,767,097	\$39,360,143	\$45,006,482	\$46,526,264	\$49,296,381

Source: NTD (2020- 2024)

PVRTA's operating statistics for fixed routes in FY 2024 are broken down by route in Table 9. Table 9 includes a column identifying the route's "service tier" from Tier 1 to Tier 4. Tier 1 routes are routes with frequencies below 30 minutes. Tier 2 routes operate on 30 to 60 minute headways, while Tier 3 routes operate approximately hourly, and Tier 4 routes have frequencies of over one hour.

As identified previously, Route 31, Route 30, and Route B7 were the highest performing routes when considering overall ridership. While not in the top three routes for overall ridership, Route 35 had the highest passenger per revenue hour rate. The routes with the highest passenger trips per hour were not routes with the highest passengers per mile rates. Route B43, Route B7, and Route G2 had the highest trips per mile rates. The lowest performing routes for trips per mile included Route PS, Route WS, and Route B79. Note that PVRTA operates "Tripper" service that is not included in the operating statistics by route. As a result, the sum of revenue hours and revenue miles may differ from the route-level summary and the mode-level summary.

Table 9. Operating Statistics by Route (FY 2024)

Route	Service Tier	Ridership	Revenue Hours	Passenger Trips/ Hour	Revenue Miles	Passenger Trips/ Mile
30	1	722,206	9,116	79.22	143,325	5.04
31	1	719,487	10,283	69.97	206,309	3.49
33	2	262,843	5,588	47.04	82,852	3.17
34	1	105,386	1,630	64.65	22,853	4.61
35	1	366,933	4,105	89.39	56,342	6.51
36	3	19,852	998	19.89	22,081	0.90
38	2	141,592	6,324	22.39	138,394	1.02
39	2	7,027	2,336	3.01	41,945	0.17
39E	3	8,303	1,591	5.22	1,975	4.20
45	4	28,742	1,967	14.61	45,791	0.63
46	4	1,675	192	8.72	5,300	0.32
B12	4	1,484	755	1.97	1,614	0.92
B17	2	113,914	6,012	18.95	7,439	15.31
B23	3	58,003	6,103	9.50	7,290	7.96
B4	2	47,107	3,664	12.86	2,976	15.83
B43	1	449,980	14,512	31.01	11,980	37.56
B48	3	83,250	4,200	19.82	10,176	8.18
B6	1	239,676	13,872	17.28	15,901	15.07
B7	1	619,463	21,108	29.35	23,603	26.25
B79	4	5,540	2,517	2.20	71,278	0.08
G1	1	597,984	27,914	21.42	30,989	19.30
G19	3	9,582	1,026	9.34	4,667	2.05
G2	2	420,906	19,950	21.10	18,498	22.75

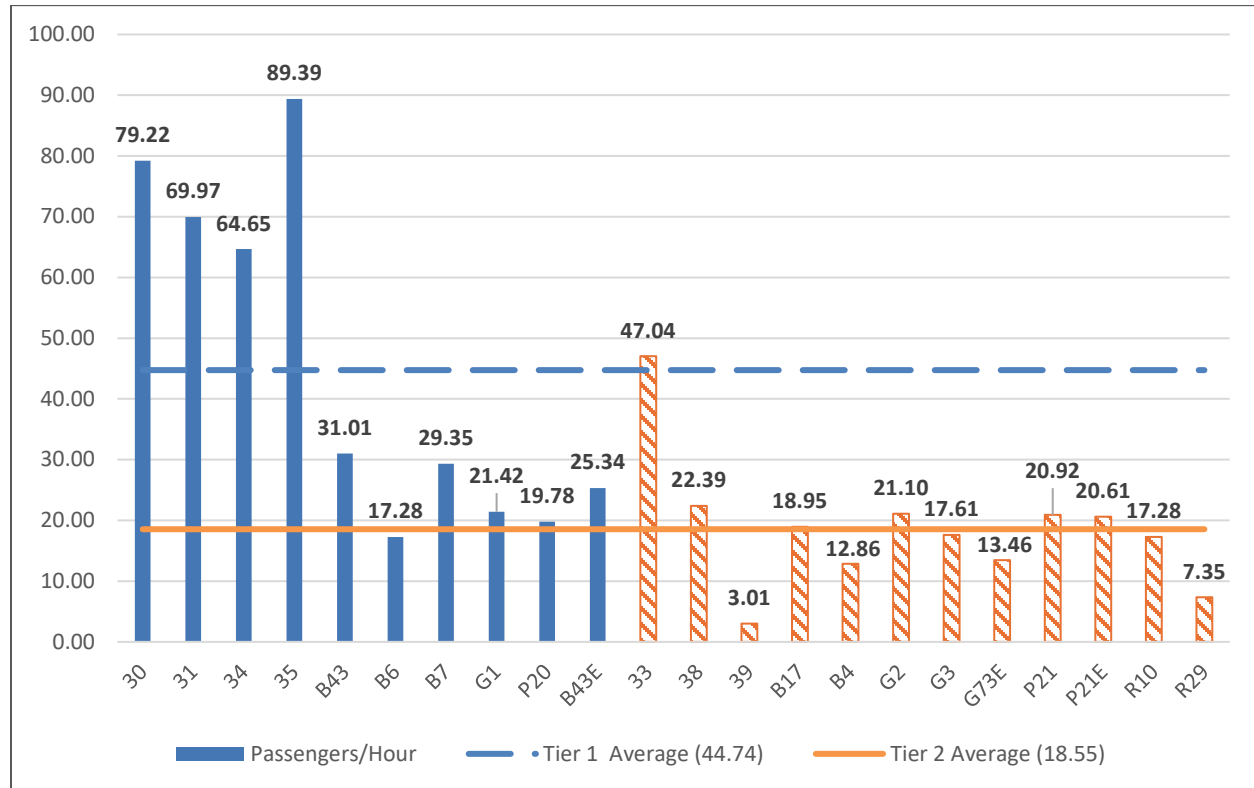
Route	Service Tier	Ridership	Revenue Hours	Passenger Trips/ Hour	Revenue Miles	Passenger Trips/ Mile
G3	2	211,878	12,033	17.61	9,441	22.44
G5	3	59,622	4,967	12.00	4,441	13.43
G73E	2	115,232	8,564	13.46	35,362	3.26
NE	4	11,907	2,892	4.12	44,992	0.26
P11	3	13,426	1,788	7.51	39,799	0.34
P20	1	561,076	28,371	19.78	348,208	1.61
P21	2	298,312	14,262	20.92	14,567	20.48
P21E	2	77,567	3,764	20.61	12,718	6.10
PS	4	2,678	1,496	1.79	29,718	0.09
R10	2	184,727	10,691	17.28	17,474	10.57
R14	3	65,044	4,887	13.31	6,989	9.31
R22	3	10,456	735	14.23	3,593	2.91
R24	3	24,065	1,882	12.79	2,357	10.21
R29	2	39,270	5,345	7.35	7,735	5.08
R41	3	59,520	6,102	9.75	9,836	6.05
R42	3	46,554	4,815	9.67	8,637	5.39
R44	4	60,818	7,783	7.81	7,776	7.82
WS	4	2,883	1,067	2.70	24,206	0.12
X90	3	131,717	12,756	10.33	8,372	15.73
X92	3	86,326	6,271	13.77	6,682	12.92

Source: PVTa, NTD (2020-2024)

Figure 14 shows passengers per hour for FY 2024 for Tier 1 and Tier 2 routes, and Figure 15 shows passengers per hour for Tier 3 and Tier 4. Of Tier 1 routes, the average passenger per hour rate was 44.74. Of the Tier 2 routes, the average was 18.55 passengers per hour. Route 35, Route 30, and Route 31 represented the top three highest performing routes overall based on this metric. Route 33 had the highest rate of passengers per hour for Tier 2, followed by Route 38. Tier 3 routes averaged 11.26 and Tier 4 routes averaged 6.02 passengers per hour. Route 36 and Route B48 were the highest performing Tier 3 routes and Route 45 was the highest performing Tier 4 route. At a system level, PVTa's fixed routes served an average of 25.11 passengers per hour during FY 2024.

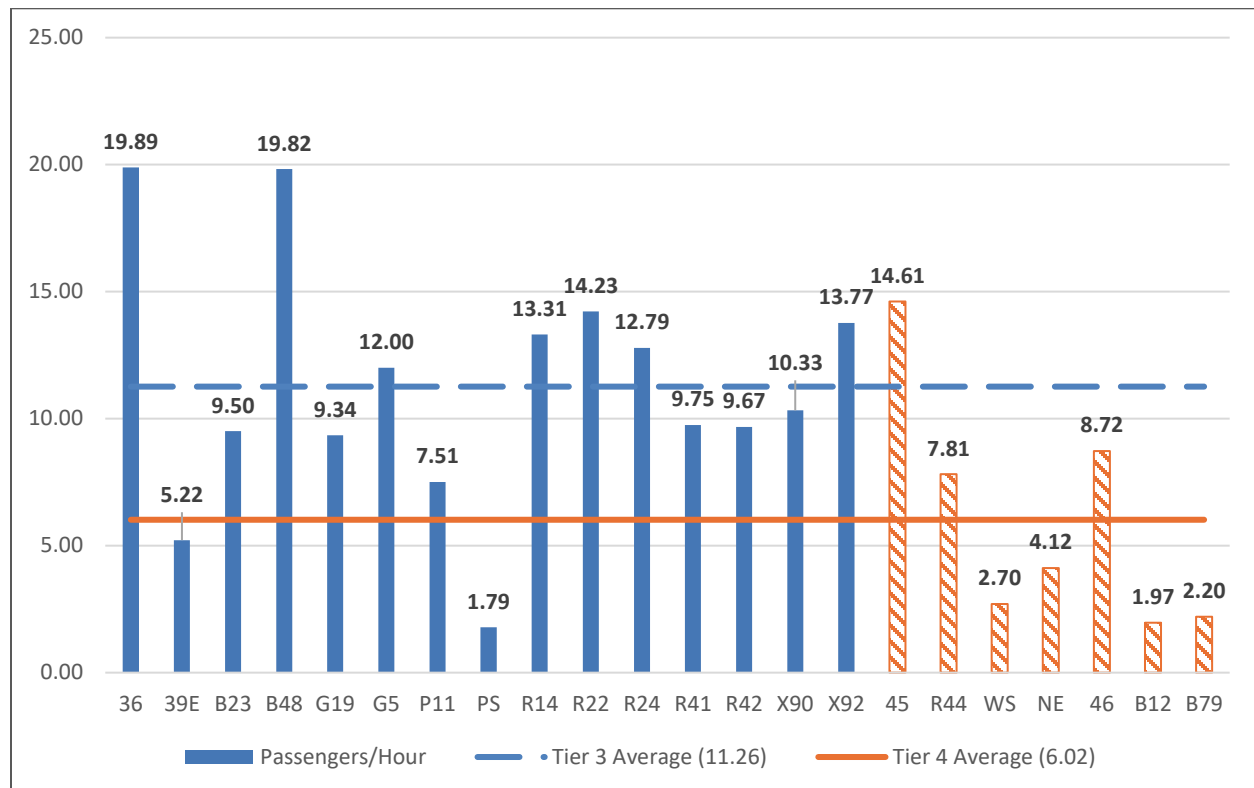
Four routes averaged fewer than four passengers per hour (39, B12, PS, and WS). Routes PS and WS are community shuttle routes that serve low density areas within the PVTa service area, providing essential access to transportation for the communities served. Additionally, Route B12 is an express route that operates three trips per day to the Hampden County Correctional Facility at Stonybrook. Route 39 connects Smith College and Hampshire College.

Figure 14. Passengers per Hour by Route, Tier 1 and Tier 2 (FY 2024)



Source: PVTa (2025)

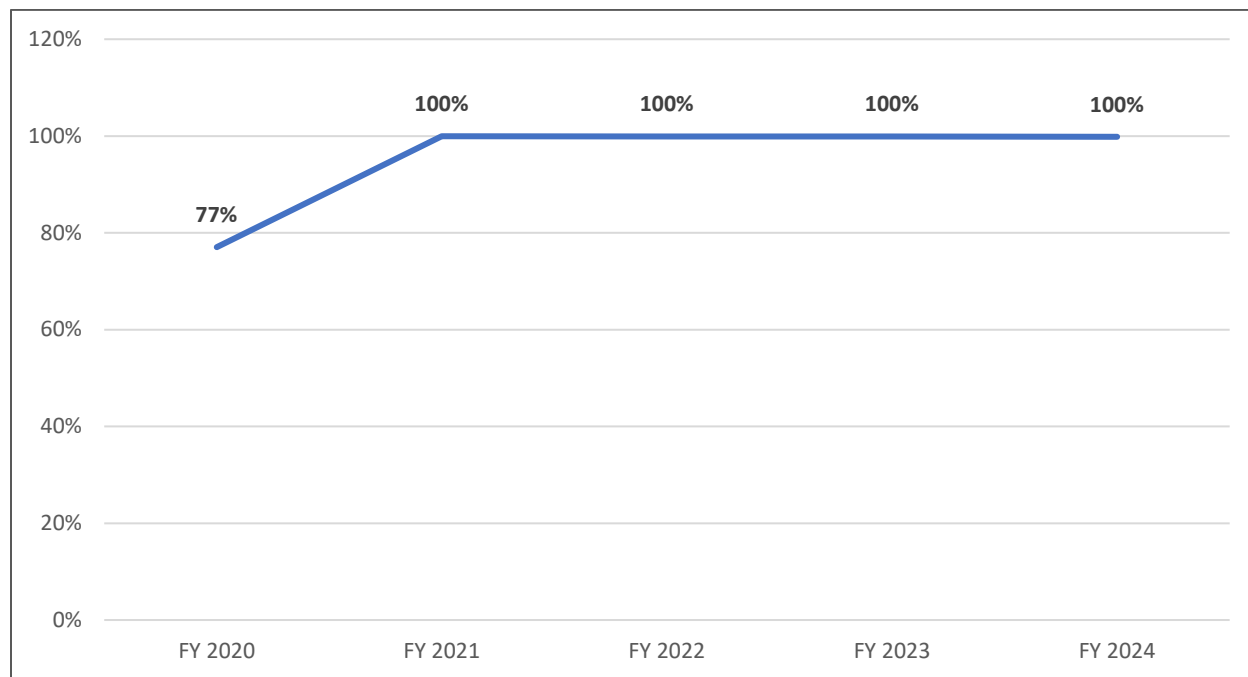
Figure 15. Passengers per Hour by Route, Tier 3 and Tier 4 (FY 2024)



Source: PVTa (2025)

As seen in Figure 16, PVTa operated 77 percent of scheduled trips in FY 2020. Complications arising from the COVID-19 pandemic impacted PVTa's ability to operate scheduled trips in FY 2020. From FY 2021 to FY 2024, PVTa operated 100 percent of scheduled trips.

Figure 16. Overall Scheduled Trips Operated (FY 2020-FY 2024)

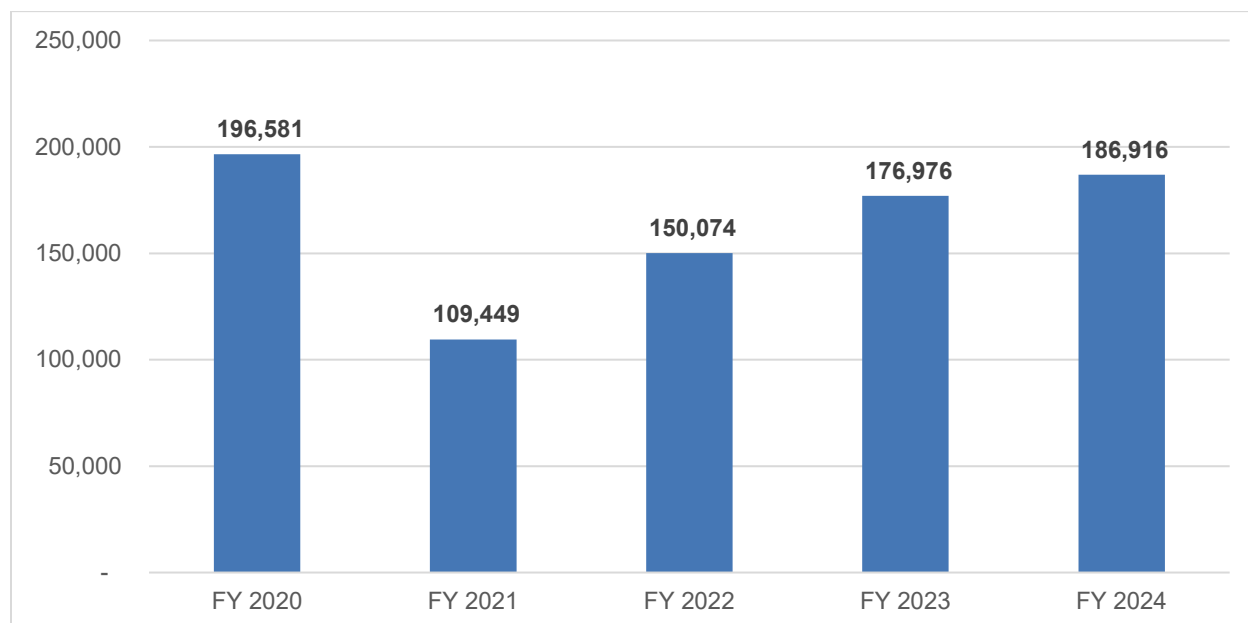


Source: MassDOT (2025)

4.2.3 Demand Response Ridership and Operations

PVTa provides ADA paratransit service throughout member communities and within a $\frac{3}{4}$ -mile area surrounding each fixed route in non-member communities. PVTa also offers non-ADA paratransit service for seniors and people with disabilities in each of the member communities. Demand response ridership represents 2 percent of the overall system ridership.

Following fixed route trends, annual demand response ridership also dropped in FY 2021 but has increased year-over-year since (Figure 17). Ridership rose to over 150,000 riders in FY 2022 — a 37 percent increase from FY 2021. As of FY 2025, demand response ridership was 211,794 — over 81 percent of FY 2019 ridership.

Figure 17. Demand Response Annual Ridership (FY 2020-FY 2024)

Source: PVTa, MassDOT (2025)

PVTa's annual operating statistics for demand response are broken down in Table 10. Demand response ridership trends align with fixed route—a drop in ridership from FY 2020 to FY 2021 and then year-over-year growth from FY 2021 to FY 2024. Revenue hours and revenue miles follow similar patterns. Overall, operating costs increased about 10.5 percent from FY 2020 to FY 2024.

Table 10. Demand Response Operating Statistics (FY 2020-FY 2024)

Statistic	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Ridership	196,581	109,449	150,074	176,976	186,916
Revenue Hours	150,038	93,863	110,137	129,719	131,508
Revenue Miles	2,095,563	1,252,761	1,629,988	1,919,454	1,974,218
Operating Costs	\$8,454,361	\$7,736,313	\$7,904,743	\$9,431,378	\$10,616,963

Source: PVTa (2025)

PVTa's demand response service tracks the number of missed trips, no-shows, late cancellations, and denied trips. PVTa uses the following definitions for each of these cases:

- **Missed trip:** A scheduled trip for which the contractor arrived at the scheduled location outside of the window and the rider does not take the trip. Missed trips also include trips never served due to miscommunication by the contractor or reservation/scheduling errors. All missed trips, as defined above, must be reported to PVTa in a monthly report or upon request by PVTa Administration.
- **No-show:** When the vehicle arrives at a location within the pickup window and the customer is not present, did not call ahead to cancel, or cancels at the door.
- **Late cancellation:** A cancellation placed within 1 hour of the scheduled pick-up window.

- **Denied trips:** FTA regulations allow the grantee/supplier to negotiate pickup times with ADA-eligible persons within a 1-hour window. If the grantee/supplier cannot schedule a ride that is no more than 1 hour before or after the desired departing time, the trip must be tracked as a denial, even if the rider accepts the time change and service is provided.

PVTA's annual demand response metrics are broken down in Table 11. PVTA does not separately track missed trips from no-shows and the two have been combined in the table. PVTA also does not track same-day cancellations. The proportion of missed trips/no-shows has been lower than the peak in FY 2020 of 0.27 percent in each year that followed. Denied trips had the highest rate in FY 2021 but decreased to almost zero by FY 2023 and FY 2024. Late cancellation rates fluctuated year to year, with a period high of 2.27 percent in FY 2020 and a low of 1.78 percent in FY 2021.

Table 11. Demand Response Metrics (FY 2020-FY 2024)

Metric	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Average Trips/Passenger	196,770	109,556	150,074	176,976	186,742
% Denied Trips	0.15%	0.17%	0.10%	0.02%	0.02%
% No-show/Missed Trips	0.27%	0.08%	0.26%	0.05%	0.17%
% Late Cancellation	2.27%	1.78%	2.33%	2.40%	1.91%

Source: PVTA (2025)

4.2.4 Transit Service Performance

This section provides information on PVTA's systemwide performance trends for fixed route and demand response services from FY 2020 to FY 2024. Transit service performance is evaluated in two categories: service effectiveness and financial performance. A comparison with peer transit systems across Massachusetts (excluding MBTA) and the nation is also provided.

4.2.4.1 Service Effectiveness

Service effectiveness describes the amount of transit service utilized per unit amount of transit service that is provided. Service effectiveness is measured using two indicators: passengers per mile and passengers per hour.

- **Passengers per mile** measures the average number of unlinked passenger trips taken for every vehicle revenue mile provided. Though the passengers per mile indicator is a strong measure of system efficiency, it is also influenced by the length of passenger trips. Smaller values likely represent longer trips where passengers are travelling greater distances, or a poorly performing system. Larger values likely represent shorter trips where passengers are traveling smaller distances, or a high-performing system.
- **Passengers per hour** measures the average number of unlinked passenger trips taken for every vehicle revenue hour provided. Passengers per hour is influenced by the geographic area and the average operating speed of a route. Higher values indicate a more efficient system.

Service effectiveness for PVTA's fixed route and demand response services from FY 2020 to FY 2024 is illustrated in Table 12. Service effectiveness for fixed route declined from FY 2020 to FY 2021 as a result of the pandemic, then recovered from FY 2022 to FY 2024.

PVTA's passengers per mile and passenger per hour rates were higher than national and state averages. PVTA also exceeded its FY 2024 targets for fixed route across both metrics. In FY 2024, PVTA served 1.66 passengers per mile and 25.11 passengers per revenue hour.

For demand response service, PVTA's FY 2024 passengers per mile (0.09) and passengers per hour (1.42) rates met or exceeded the RTA's targets though both metrics were below state and national averages.

Table 12. Service Effectiveness (FY 2020-FY 2024)

Productivity Metric	Fixed Route Passengers/ Mile	Fixed Route Passengers/ Hour	Demand Response Passengers/ Mile	Demand Response Passengers/ Hour
FY 2020	1.87	24.63	0.09	1.31
FY 2021	0.90	11.68	0.09	1.17
FY 2022	1.28	17.65	0.09	1.36
FY 2023	1.52	21.86	0.09	1.36
FY 2024	1.66	25.11	0.09	1.42
PVTA FY 2024 Targets	1.35	20.00	0.09	1.40
FY 2024 Massachusetts Average ^a	1.25	17.87	0.12	1.95
FY 2024 National Average	1.92	23.06	0.13	1.92

Source: NTD

^a Massachusetts average excludes MBTA (from all modes).

4.2.4.2 Financial Performance

Cost effectiveness is a measure of a transit system's performance in financial terms, indicating the effectiveness of dollars invested in the transit system at producing trips. Many variables influence the financial efficiency of a transit agency, including the size and other characteristics of the geographic area served, ridership, the cost of labor, and more. Cost effectiveness indicators are cost per mile, cost per hour, and cost per passenger.

- **Cost per mile** measures the overall expense of providing a transit service divided by the number of vehicle revenue miles provided by the service. A smaller value indicates more financially efficient system and/or faster operating speeds.
- **Cost per hour** measures the overall expense of providing a service divided by the number of vehicle revenue hours provided by the service. A smaller value indicates more financially efficient system and/or faster operating speeds.
- **Cost per passenger** measures the overall expenses required to operate the transit service divided by the number of unlinked passenger trips that were taken on the service. A smaller value indicates a financially efficient system and/or a mode with high ridership.

Fixed Route Financial Performance

Table 13 illustrates the cost effectiveness of PVRTA's fixed route services from FY 2020 to FY 2024. PVRTA's operating costs per mile for fixed route increased from FY 2020 to their peak in FY 2024. PVRTA's FY 2024 cost per mile of \$10.48 exceeded the RTA's target of \$7.90.

PVRTA's operating costs per hour increased from FY 2020 to FY 2024. In FY 2024, PVRTA's operating cost per hour was \$158.08, which was higher than the state average (\$141.70) but lower than the national average (\$189.95). It did not meet PVRTA's target of \$111.00 per hour. Likewise, PVRTA's cost per passenger for FY 2024 (\$6.30) was higher than the annual target of \$5.86, though lower than the state average of \$7.93 and the national average of \$8.24 per passenger.

Table 13. Cost Effectiveness: Fixed Route (FY 2020-FY 2024)

Cost Effectiveness Metric	Cost/Mile	Cost/Hour	Cost/Passenger
FY 2020	\$9.15	\$120.47	\$4.89
FY 2021	\$9.09	\$118.28	\$10.13
FY 2022	\$9.51	\$130.65	\$7.40
FY 2023	\$10.23	\$147.37	\$6.74
FY 2024	\$10.48	\$158.08	\$6.30
PVRTA FY 2024 Targets	\$7.90	\$111.00	\$5.86
FY 2024 Massachusetts Average ^a	\$9.88	\$141.70	\$7.93
FY 2024 National Average	\$15.80	\$189.95	\$8.24

Source: NTD

^a Massachusetts average excludes MBTA (from all modes).

Demand Response Financial Performance

Table 14 illustrates the cost effectiveness of PVRTA's demand response services from FY 2020 to FY 2024. As was the case for fixed route service, cost effectiveness decreased from FY 2020 to FY 2021, then stabilized in FY 2022. Demand response cost per mile in FY 2024 was \$5.38, lower than both the state average of \$5.43 and national average of \$6.32, though above the target of \$5.02 per mile.

PVRTA's cost per hour in FY 2024 also exceeded the annual target of \$73.76 per hour. This cost per hour was, however, lower than the state average of \$107.81 and national average of \$97.27. PVRTA's cost per passenger in FY 2024 was again higher compared to the RTA target (\$52.63) as well as state average of \$44.76 and national average of \$50.57.

Table 14. Cost Effectiveness: Demand Response (FY 2020-FY 2024)

Cost Effectiveness Metric	Cost/Mile	Cost/Hour	Cost/Passenger
FY 2020	\$4.03	\$56.35	\$43.01
FY 2021	\$6.18	\$82.42	\$70.68
FY 2022	\$4.85	\$71.77	\$52.67
FY 2023	\$4.91	\$72.71	\$53.29

Cost Effectiveness Metric	Cost/Mile	Cost/Hour	Cost/Passenger
FY 2024	\$5.38	\$80.73	\$56.80
PVTA FY 2024 Targets	\$5.02	\$73.76	\$52.63
FY 2024 Massachusetts Average ^a	\$5.43	\$87.07	\$44.76
FY 2024 National Average	\$6.32	\$97.27	\$50.57

Source: NTD

^a Massachusetts average excludes MBTA (from all modes).

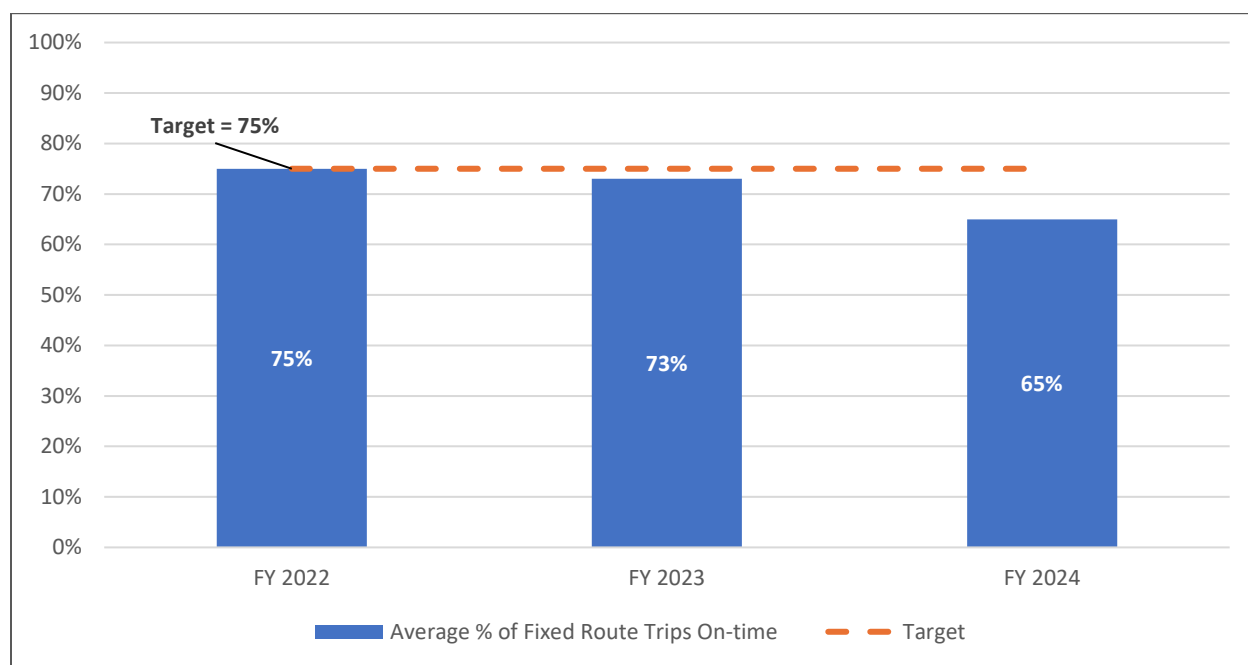
4.2.5 On-Time Performance

The following sections discuss fixed route and demand response on-time performance data during the FY 2020 to FY 2024 timeframe.

4.2.5.1 Fixed Route On-Time Performance

PVTA considers vehicles on time if they were not early or more than 5 minutes late relative to the fixed route schedule. PVTA monitors bus departure times at several timepoints along the fixed routes. In FY 2024, PVTA's target for on-time performance was to operate 75 percent of all fixed route trips on time. Though fixed route operations achieved this target in FY 2022, PVTA did not meet this goal in FY 2024, as 65 percent of trips were on time (Figure 18).

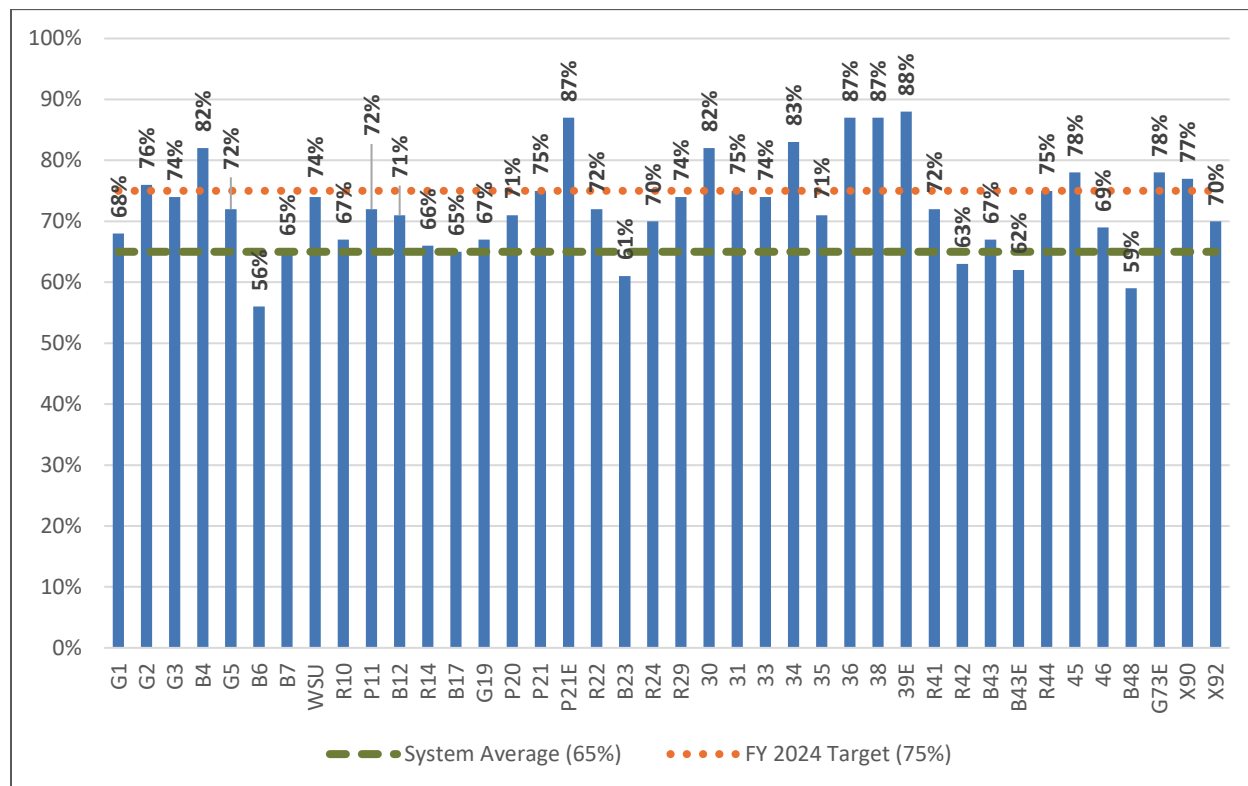
Figure 18. On-Time Performance: Fixed Route (FY 2022-FY 2024)



Source: PVTA (2025)

Across the PVTA fixed route system, on-time performance averaged 65 percent in FY 2024, with 14 routes meeting the target of 75 percent on-time performance (Figure 19). Route 39E had the highest proportion of trips operating on time (88 percent), followed by Route 36, Route 38, and Route P21E, all of which had an 87 percent on-time performance rate. The lowest performing routes were Route B6 (56 percent), and Route B48 (59 percent) had the lowest on-time performance.

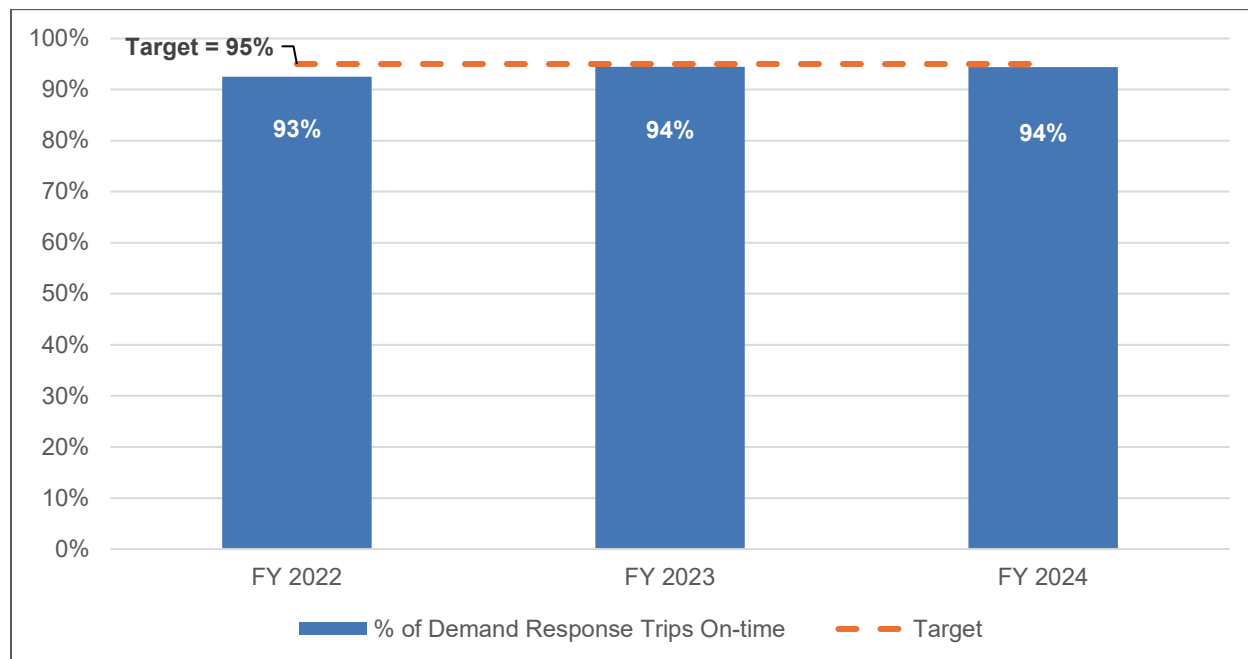
Figure 19. On-Time Performance by Fixed Route (FY 2024)



Source: PVTa (2025)

4.2.5.2 Demand Response On Time Performance

For PVTa's demand response trips, on time is defined as trips that arrive 5 or fewer minutes early or up to 20 minutes past the promised pick-up time. The on-time performance target for demand response operations is 95 percent. Performance was slightly under this target in FY 2022, FY 2023, and FY 2024 (Figure 20).

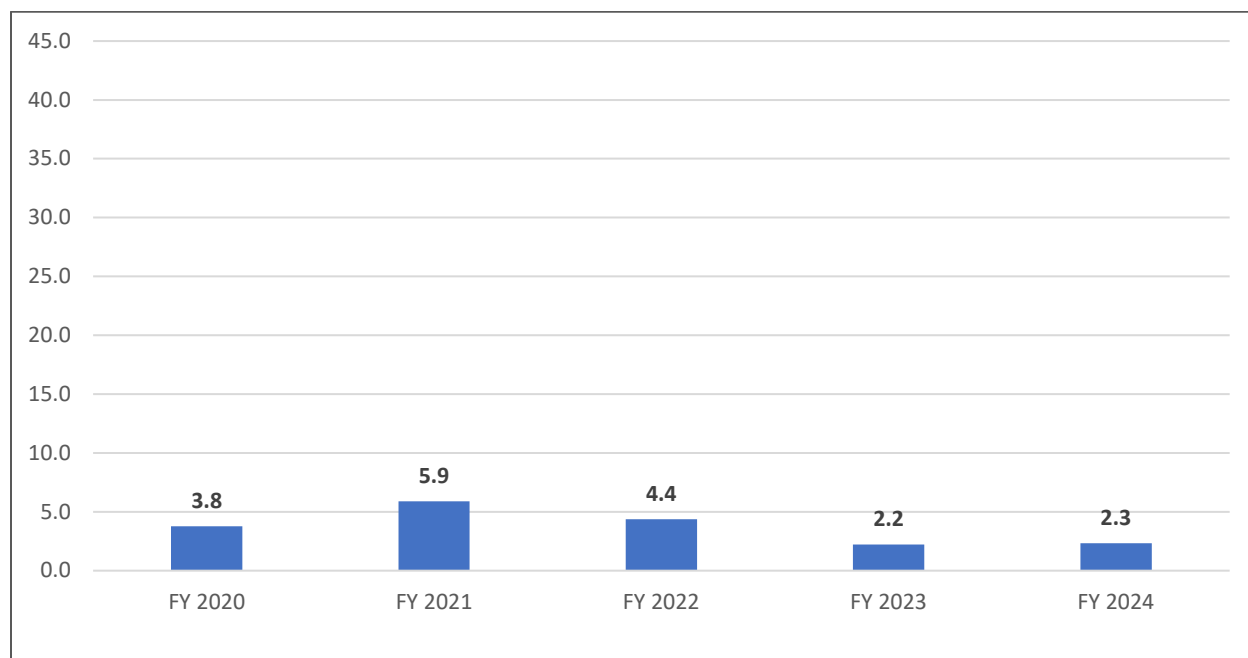
Figure 20. On-Time Performance: Demand Response (FY 2022-FY 2024)

Source: PVTA (2025)

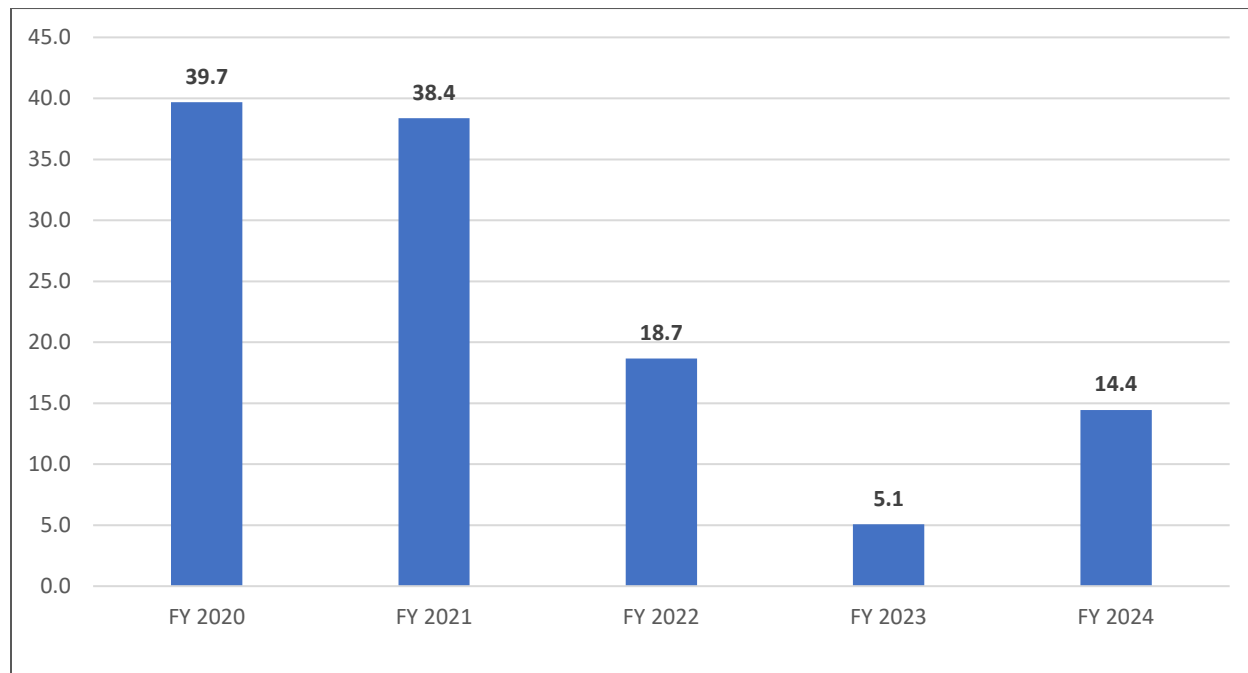
4.2.6 Customer Service

PVTA tracks the number of valid complaints per 100,000 passenger trips to normalize complaints across fluctuating ridership. Figure 21 shows valid complaint rates for fixed route service. The lowest complaint rate for fixed route in the five-year period was in FY 2023 with 2.2 valid complaints per 100,000 miles. The highest rate was 5.9 valid complaints per 100,000 miles in FY 2021. Demand response rates are shown in Figure 22. In general, the rate of valid complaints for demand response service is higher than fixed route service. The lowest complaint rate for demand response service was in FY 2023 with 5.1 valid complaints per 100,000 miles, and the highest rate occurred in FY 2020 with 39.7 valid complaints per 100,000.

PVTA tracks phone hold times for paratransit reservations/dispatch. The longest hold times were in FY 2020, averaging 4 minutes and 16 seconds. Hold times have since decreased significantly. In FY 2024, the average hold time was 1 minute and 21 seconds.

Figure 21. Number of Valid Complaints per 100,000 Passenger Trips: Fixed Route (FY 2020-FY 2024)

Source: PVTA (2025)

Figure 22. Number of Valid Complaints per 100,000 Passenger Trips: Demand Response (FY 2020-FY 2024)

Source: PVTA (2025)

4.3 Regional Connections and Partnerships

PVTA routes connect to a number of other bus and rail services in and adjacent to the Pioneer Valley. FRTA operates two routes in the PVTA area, providing connections to the FRTA John W.

Oliver Transit Center (JWO) in Greenfield. FRTA Route 31 (Northampton/Greenfield) operates between PVTA's transfer hub at the Academy of Music in downtown Northampton and the JWO. FRTA Route 23 (Sunderland/Greenfield) provides a connection between Sugarloaf Estates in Sunderland and the JWO. PVTA recently implemented a new route extending service to Greenfield via the October 2024 Amherst/Greenfield route. PVTA is also collaborating with FRTA and Berkshire Regional Transit Authority (BRTA) to launch a new intercity service, known as the Link 413 express bus, anticipated to begin service in 2026. Additionally, PVTA provides connections to Union Station in Worcester via Route B79 where passengers can make connections with Peter Pan Bus Lines and Greyhound intercity bus routes, Worcester Regional Transit Authority (WRTA) buses, MBTA commuter rail, and Amtrak's Lakeshore Limited (Chicago to Albany).

PVTA also provides regional connections across state boundaries to serve a MassMutual employment center in Enfield, Connecticut. The route also facilitates transfers between PVTA and CTtransit's Enfield Express, which operates express to downtown Hartford.

Intercity bus connections are available at several locations served by PVTA and Peter Pan Bus Lines: Union Station, Holyoke Transit Center (HTC), Amherst Center, UMass, Northampton, and South Hadley. Passengers can make connections to Boston, Bradley International Airport in Connecticut, and New York destinations. Greyhound also provides intercity bus connections from Springfield Union Station to New York and Boston.

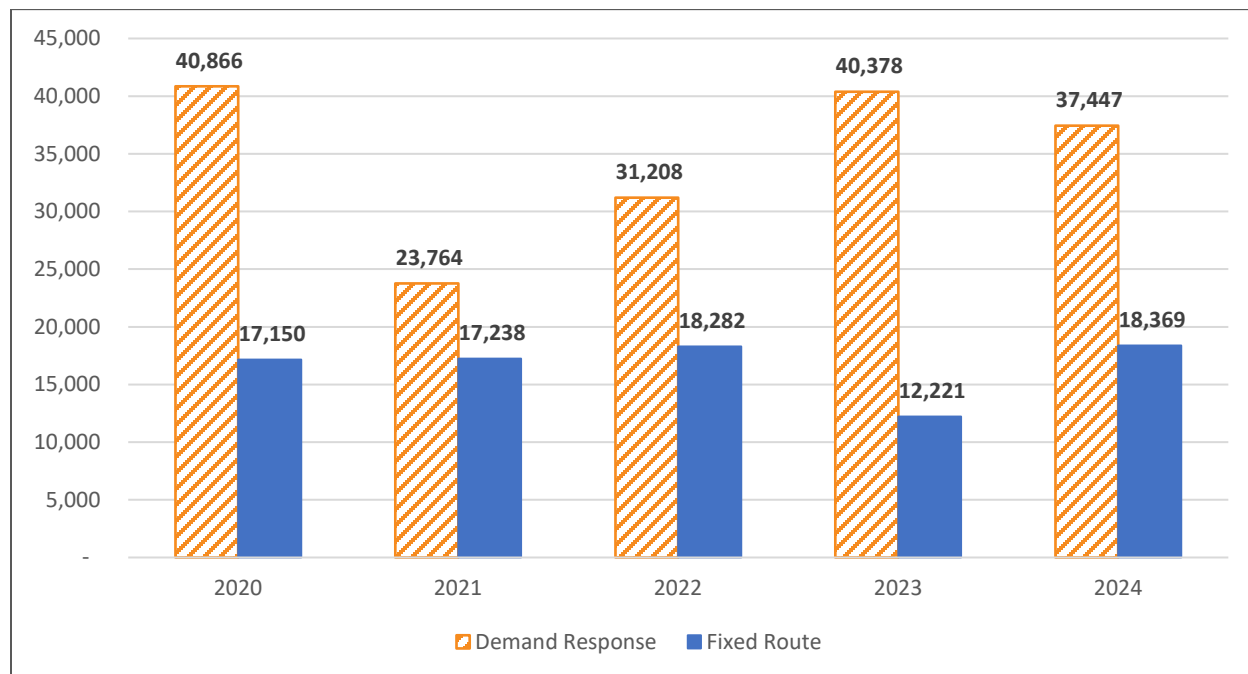
Additionally, five intercity rail routes serve Springfield's Union Station. Amtrak Northeast Regional connects Springfield to New York City via Hartford and New Haven, Connecticut. The other four routes are the Vermonter line (New York City to St. Albans, Vermont), the Lake Shore Limited, the Valley Flyer (Greenfield to New Haven), and the CT*rail* Hartford Line (Springfield to New Haven). Amtrak serves the Holyoke Amtrak Station as well as the Northampton Amtrak Station.

4.4 Asset Management

This section provides asset management information that pertains to PVTA vehicles and facilities over the FY 2020 to FY 2024 time period.

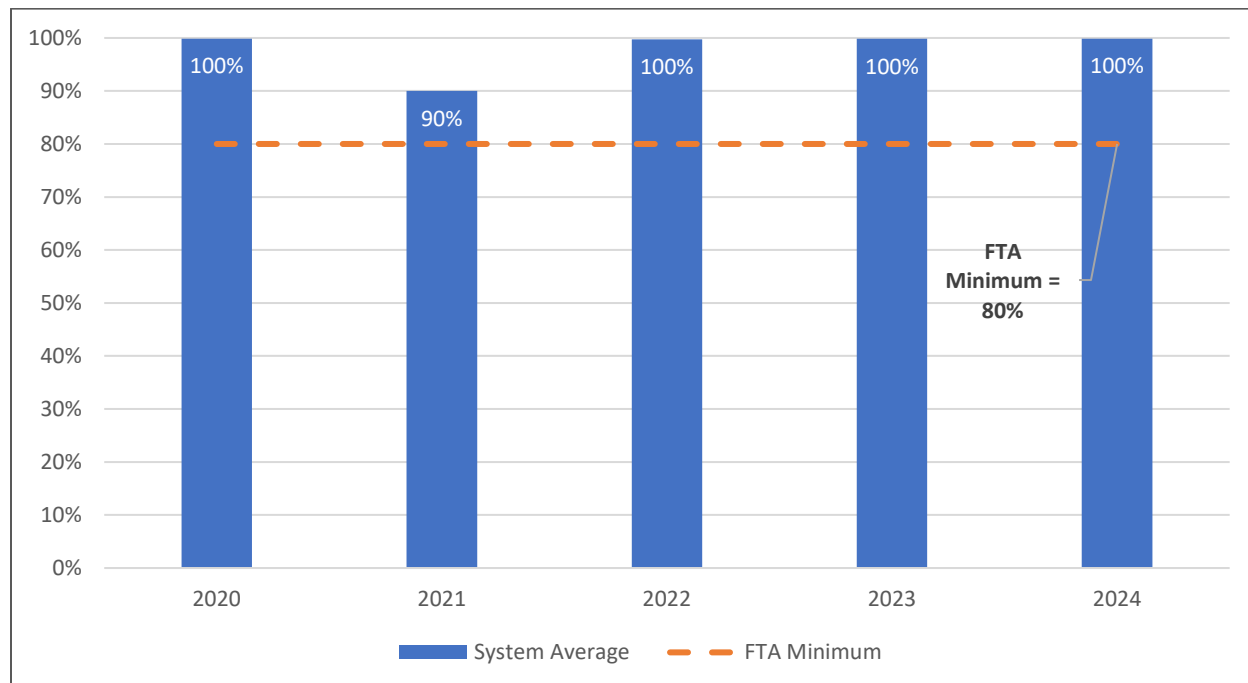
4.4.1 Maintenance

Miles traveled between road calls decreased from 2020 to 2021 for both fixed route and demand response service before increasing again in 2022 and 2023 (Figure 23). Miles between road calls was slightly lower for demand response service in 2024 compared to 2023, though the number of miles increased for fixed route service.

Figure 23. Miles Between Road Calls (2020-2024)

Source: PVTA (2025)

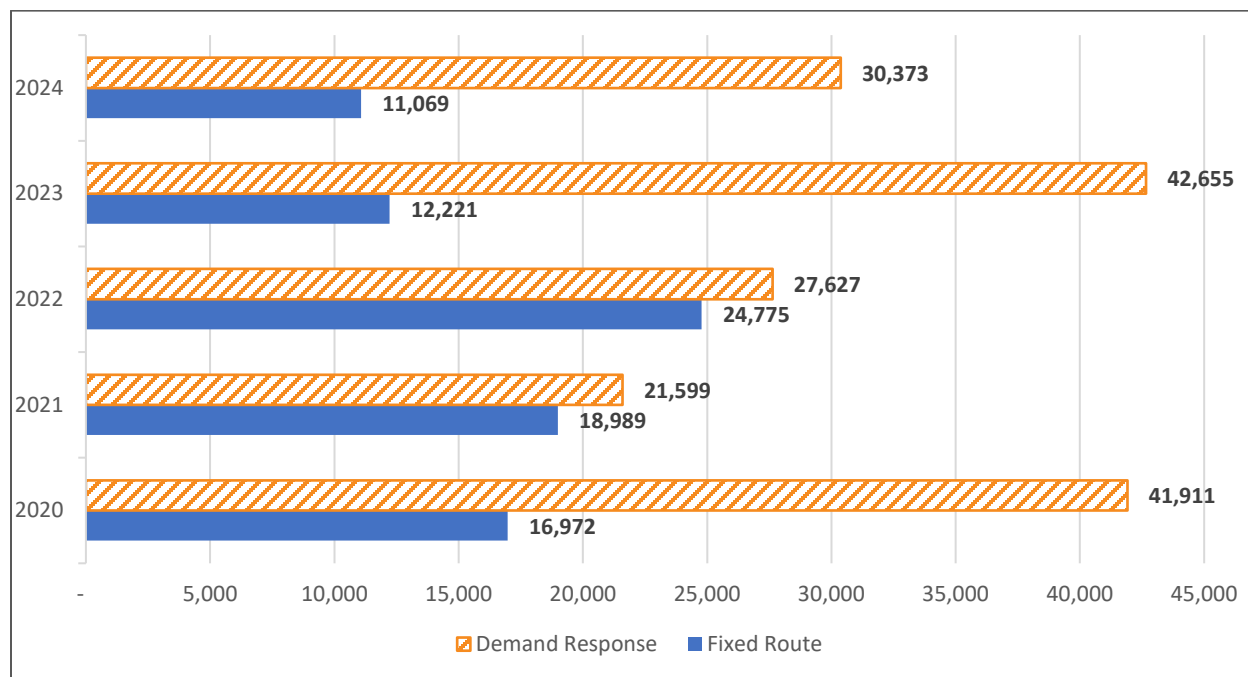
In the FY 2020 to FY 2024 period, PVTA continued to exceed the FTA minimum of 80 percent for preventable maintenance completed on time (Figure 24). Preventive maintenance was at a period low of 90 percent completed on time in 2021 but reached 100 percent on time again starting in 2022.

Figure 24. Preventative Maintenance Performed On Time: Systemwide (2020-2024)

Source: PVTA (2025)

PVTA experienced fluctuations in the number of major mechanical failures on fixed route vehicles. The mean miles traveled between major mechanical failures decreased from 2020 to 2022 before reaching a high of nearly 43,000 miles in 2023 (Figure 25). Miles between failures then decreased from 2023 to 2024. Miles between major mechanical failures on demand response vehicles was lower compared to fixed route vehicles. 2024 had the lowest miles between major failures, while 2022 had the highest.

Figure 25. Mean Miles Between Major Mechanical Failures (2020-2024)



Source: PVTA (2025)

4.4.2 Vehicles

PVTA operates a total of 313 active revenue vehicles, with buses and cutaways making up a significant portion of the rolling stock (Table 15). The average age of PVTA buses is approximately 7.6 years and the average age of cutaways is 5.6 years. PVTA's articulated buses had the highest average age with 11 years.

Table 15. Equipment Inventory Summary (FY 2024)

Vehicle Type	Total Number	Average Age	Average Mileage	Percentage at or past Useful Life Benchmark
Bus	176	7.6	251,758	19%
Articulated Bus	4	11	281,649	0%
Cutaway	133	5.6	191,876	0%

Source: NTD Revenue Vehicle Inventory (2024), MassDOT (2025)

4.4.3 Facilities

PVTA owns five maintenance and operations facilities dispersed throughout the service area, two passenger transfer centers, as well as one administrative building (Table 16). Other

facilities used, but not owned by PVTA, include an office at HTC Info Center, and the Springfield Information Center office at Union Station. The Cottage Street Fixed Route Bus Operations and Maintenance Facility, which opened in 2019, has a Transit Economic Requirements Model (TERM) rating of 5, on a scale of 1 (poorest) to 5 (best), indicating the facility is in excellent condition. Many of PVTA's other facilities, including the paratransit and UMass operations and maintenance facilities, are rated 3 on the TERM scale ("acceptable" condition).

Table 16. Facility Inventory Summary

Facility Name	Type	Location	Landowner the Facility is On	Direct Capital Responsibility	TERM Rating
Administration Building/Main Street Operations	Administration office / Sales office	2808 Main Street	PVTA	Yes	3
Springfield Information Center	Administration office / Sales office	55 Frank B. Murray Street	Springfield Redevelopment Authority	No	5
Cottage Street Fixed-Route Bus Operations & Maintenance Facility	Maintenance facility (service and inspection)	665 Cottage Street	PVTA	Yes	5
UMass Bus Operations & Maintenance Facility/University Transit Services - RTIC	Maintenance facility (service and inspection)	255 Holdsworth Way	PVTA	Yes	4
HTC Bays	Passenger - Bus transfer center	236 Maple Street	City of Holyoke/Holyoke Intermodal Facility LLC	Yes	4
Westfield Olver Transit Pavilion	Passenger - Bus transfer center	10 Arnold Street	PVTA	Yes	4
Union Station Bays	Passenger - Bus transfer center	50 Frank B Murray Street	PVTA	No	5
Paratransit Administration and Maintenance	General purpose maintenance facility/depot	2840 Main Street	PVTA	Yes	3
HTC Info Center	Administration office / Sales office	206 Maple Street	PVTA	No	3

Facility Name	Type	Location	Landowner the Facility is On	Direct Capital Responsibility	TERM Rating
UMass Bus Operations & Maintenance Facility/University Transit Services	Maintenance facility (service and inspection)	255 Holdsworth Way	PVTA	Yes	3
Northampton Bus Maintenance Facility	Maintenance facility (service and inspection)	54 Industrial Avenue	PVTA	Yes	3.5

Source: MassDOT (2025)

4.4.4 Technology

PVTA leverages a diverse array of technologies including ADEPT software from DDS Wireless for paratransit operations and dispatch, and software from Avail Technologies for real-time automatic vehicle locator (AVL) and operations data. Avail also allows passengers to track vehicles in real-time on desktop and mobile platforms (through the Transit App or MyStop app). Additionally, PVTA has an NTD-certified automated passenger counter (APC) system to track passenger boardings.

4.5 Policies and Procedures

Customer policies, such as the *PVTA Rider Rules & Etiquette* guide, are publicly available on the RTA's website. These documents outline how to ride and define prohibited behaviors such as eating, drinking, smoking, vandalism, disruptive behavior, harassment, or violence. PVTA also has a public Passenger Code of Conduct, which also documents prohibited behaviors and consequences of violating these policies.

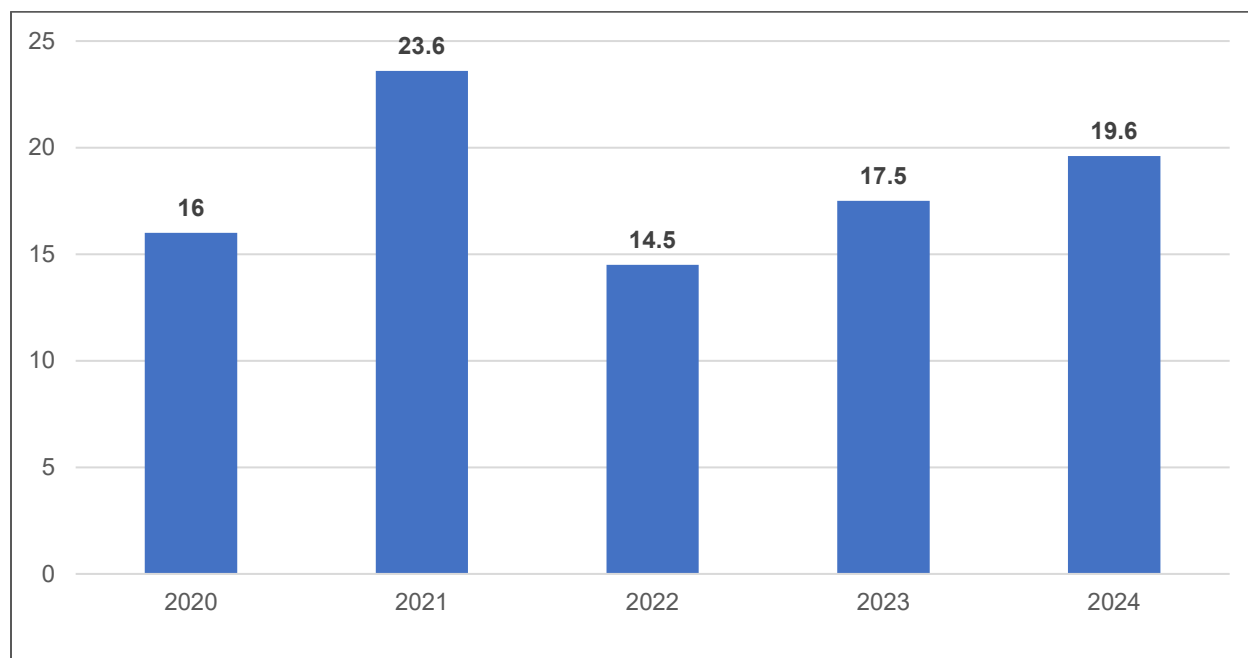
Other policies and procedures include PVTA's service policies, such as those pertaining to bus shelter placement and bus stop spacing guidelines. PVTA's bus shelter service policies provide guidelines for shelter infrastructure across three development types—urban, suburban, and rural. Within these development categories, PVTA has established ridership thresholds where urban stops with 60 or more boardings per day, suburban stops with at least 40 boardings per day, and rural stops with 15 or more boardings per day should include a bus shelter.

Additionally, most bus stops are marked with PVTA bus stop signs. However, unmarked stops or flag stops are used in some areas. Passengers need to arrive at the stop 5 minutes or more before the expected arrival of the bus, be ready to board, and signal the driver as the bus approaches.

4.6 Safety and Security

PVTA is focused on providing the safest and most secure service possible. Preventable accidents per 1,000,000 miles peaked in 2021 with 23.6 accidents per 1,000,000 miles (Figure 26). Preventable accidents dropped from 2021 to 2022 but have since been steadily increasing. There were 19.6 preventable accidents per 1,000,000 miles in 2024.

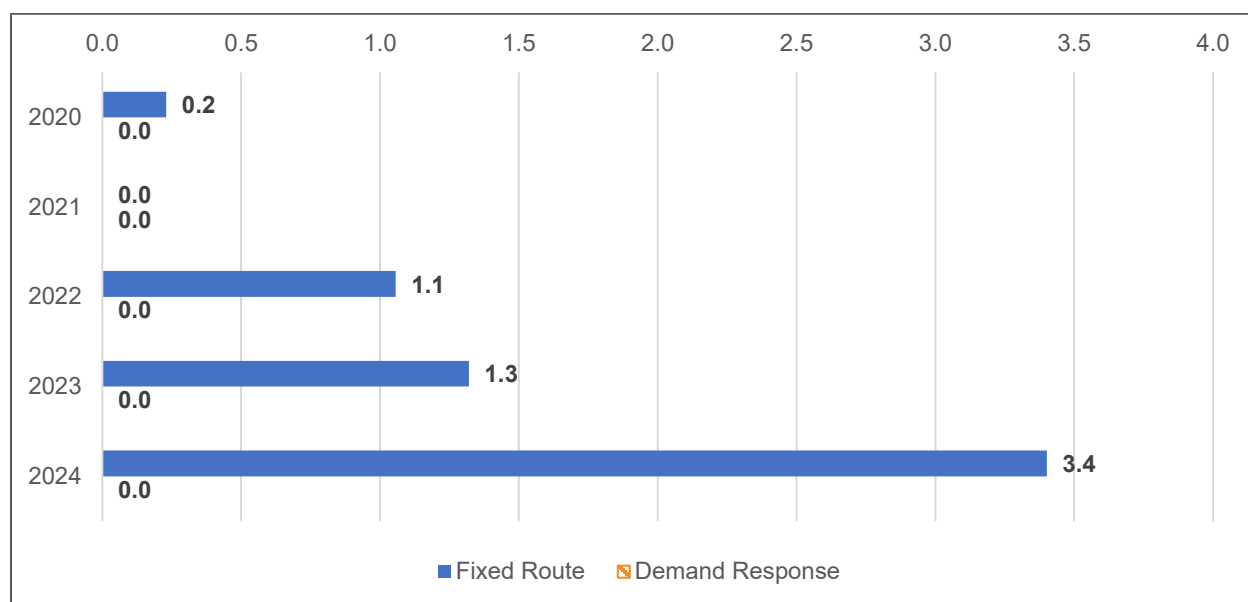
Figure 26. Number of Preventable Accidents per 1,000,000 Revenue Miles: Systemwide (2020-2024)



Source: PVTA (2025)

PVTA has a target in its Public Transportation Agency Safety Plan (PTASP) of 0 fatalities per 100,000 miles for both demand response and fixed route (PVTA 2023). PVTA had one fatality in 2023 and did not meet the target that year. Injuries occurring on fixed routes grew from 0.2 per 1,000,000 miles in 2020 to 3.4 in 2024 (Figure 27). The injury rate for demand response was zero per 1,000,000 miles between 2020 and 2024.

Figure 27. Number of Injuries per 1,000,000 Revenue Miles (2020-2024)

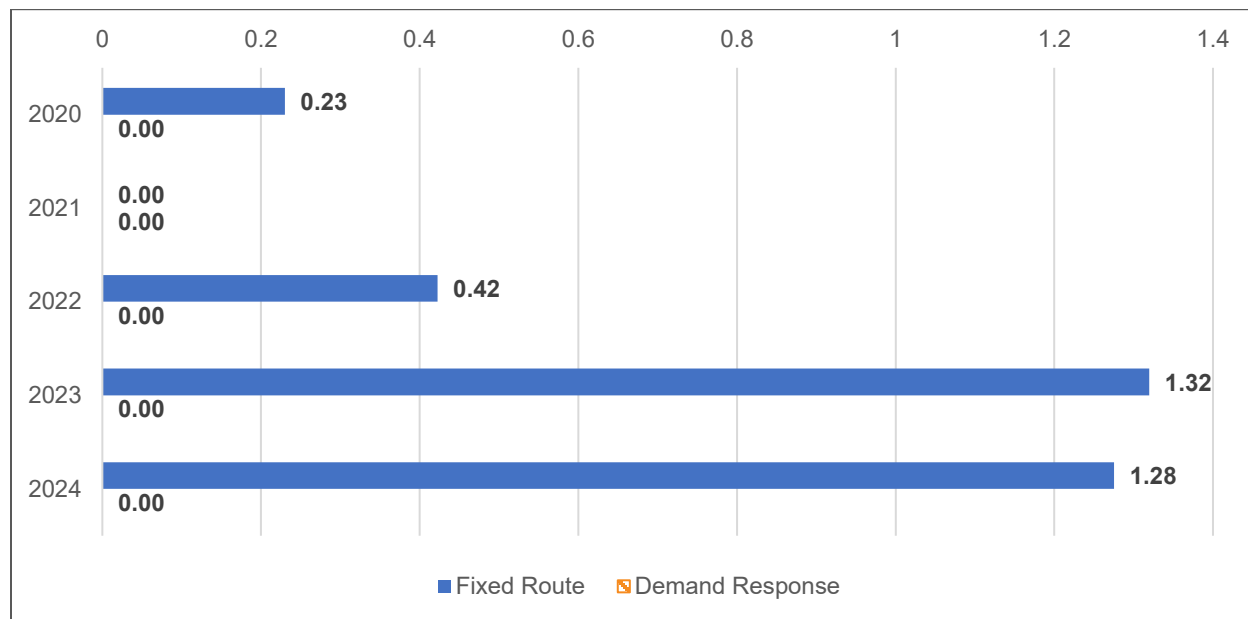


Source: NTD (2025)

Figure 28 shows all major events reported to NTD meeting at least one of the NTD reporting thresholds for major events (NTD 2025). NTD defines a safety event as a collision, derailment, fire, hazardous material spill, act of nature (Act of God), evacuation, or Other Safety

Occurrence not Otherwise Classified occurring on transit right-of-way, in a transit revenue facility, in a transit maintenance facility, or involving a transit revenue vehicle and meeting established NTD thresholds. No safety events were reported between 2020 and 2024 for demand response. 2023 had the highest rate of recorded events for fixed route service with 1.32 per 1,000,000 miles. Safety events for 2024 were slightly lower compared to the 2023 peak, approximately 1.28 events per 1,000,000 miles. The period low occurred in 2021 with zero recorded major events per one million miles.

Figure 28. Number of Safety Events per 1,000,000 Revenue Miles (2020-2024)



Source: NTD (2025)

4.7 Peer Agency Analysis

As part of the CRTP update, a peer review was conducted to gain an understanding of how other similar systems are operating transit service. This peer review explores five transit properties that operate in similar conditions. Although each transit system and route is unique, the similarities and differences exhibited by these five peers provide useful insight into how transit service is provided and operated throughout the country.

Peers were chosen using iNTD, which assigns transit agencies across the country and their service areas with likeness scores for demographic and service metrics summarized in Table 17 and Table 18, respectively. After excluding outliers (transit properties with two or more characteristics that widely differed from PVTa), iNTD's overall likeness score was used to rank peers and select the top five (FDOT 2025). While PVTa's total population served is greater than the peer average, its average population density is lower compared to the peer average. Additionally, PVTa's population growth is slower than peers and the percentage of population below poverty is higher compared to the peer average.

Table 17. Peer Systems Census Data

System	Town	State	Population	Population Density	10-Year Population Growth Rate	Percent Poverty
City of Greensboro	Greensboro	NC	299,035	2,183	9.3%	16.3%
Lehigh and Northampton Transportation Authority	Allentown	PA	533,100	1,645	5.9%	12.1%
Ann Arbor Area Transportation Authority	Ann Arbor	MI	275,473	1,887	5.1%	17.0%
Central New York Regional Transportation Authority	Syracuse	NY	641,357	1,258	1.0%	15.4%
Greater Dayton Regional Transit Authority	Dayton	OH	559,062	2,040	-4.7%	13.7%
Peer Average	N/A	N/A	461,605	1,803	3.3%	14.9%
Pioneer Valley Transit Authority	Springfield	MA	582,689	929	0.9%	18%

Source: NTD and US Census Bureau (2023)

N/A = Not Applicable

PVTA's annual ridership was higher compared to the overall peer average by nearly 50 percent and overall revenue miles, as well as the share of revenue miles completed on demand response service, was also higher than peers. Operating budget and farebox revenue were similar between PVTA and the peer average (though it should be noted that PVTA, along with the other 14 RTAs in Massachusetts, have gone fare free, so farebox revenue will be much lower moving forward). PVTA also operated more annual revenue hours than the peer average.

Table 18. Peer Systems Operating Data

System	Unlinked Passenger Trips	Percentage of Service Miles Demand Response	Operating Budget	Revenue Miles Operated	Revenue Hours Operated	Farebox Revenue
City of Greensboro	2,263,152	36.7%	\$28,607,124	3,581,735	256,923	\$2,632,080
Lehigh and Northampton Transportation Authority	3,897,096	33.4%	\$51,529,701	5,423,444	368,371	\$7,270,004
Ann Arbor Area Transportation Authority	4,680,565	12.8%	\$52,060,272	6,691,843	401,127	\$5,274,251
Central New York Regional Transportation Authority	6,685,285	27.4%	\$78,494,795	5,594,628	444,329	\$10,421,845
Greater Dayton Regional Transit Authority	6,578,178	23.8%	\$71,594,050	6,799,393	460,867	\$6,720,005
Peer Average	4,820,855	26.8%	\$56,457,188	5,618,209	386,323	\$6,463,637
Pioneer Valley Transit Authority	7,079,756	29.7%	\$55,957,642	6,462,460	445,419	\$6,274,786

Source: NTD (2023)

A comparison of key service metrics, such as passengers per mile and cost per hour, is presented in Table 19. Generally, PVTA service generates more passengers per mile and per hour compared to peers. The exception, Central New York Regional Transportation Authority, generates just 0.09 more passengers per mile than PVTA though PVTA generates a higher number of passengers per hour. For cost per hour, PVTA spends less than the peer agency average of \$142.60. Similarly, PVTA's cost per passenger is also lower than the peer agency average of \$11.92. PVTA also has a lower subsidy per passenger rate compared to peers. Finally, PVTA's farebox recovery rate is higher than three of the peer agencies and on par with the average (though, again, that will change moving forward with the statewide implementation of fare-free RTA service).

Table 19. Peer System Performance

System	Passengers per Mile	Passengers per Hour	Cost per Hour	Cost per Passenger	Subsidy per Passenger	Farebox Recovery
City of Greensboro	0.63	8.81	\$111.35	\$12.64	\$11.48	9.2%
Lehigh and Northampton Transportation Authority	0.72	10.58	\$139.89	\$13.22	\$11.36	14.1%
Ann Arbor Area Transportation Authority	0.70	11.67	\$129.79	\$11.12	\$10.00	10.1%
Central New York Regional Transportation Authority	1.19	15.05	\$176.66	\$11.74	\$10.18	13.3%
Greater Dayton Regional Transit Authority	0.97	14.27	\$155.35	\$10.88	\$9.86	9.4%
Peer Average	0.84	12.08	\$142.60	\$11.92	\$10.57	11.2%
Pioneer Valley Transit Authority	1.10	15.89	\$125.63	\$7.90	\$7.02	11.2%

Source: NTD (2023)

5 Market Evaluation

This chapter includes an overview of the existing demographic and socioeconomic characteristics for the PVRTA service area. A market assessment can identify areas for existing and future connectivity based on population, job, and transit demand factors. This market assessment utilizes US Census Bureau's 2018-2022 American Community Survey (ACS) 5-year estimates (US Census Bureau 2023) and the Longitudinal Employer-Household Dynamics 2022 data set (US Census Bureau 2025b) for the demographic data, and Replica data (Replica 2024) for the number of transit trips taken.

This chapter also summarizes the findings from the stakeholder and public engagement activities undertaken as a part of the planning process. PVRTA conducted multiple stakeholder meetings with municipal officials and local employers as well as a pop-up event at Springfield's Union Station. High-level findings from those activities are presented in this chapter, and the full list of public comments is included in Appendix C. Together, the demographic analysis and engagement results directly inform the needs and recommendations presented in Chapter 8.

5.1 Demographic Analysis

Certain populations have a higher propensity to ride transit. This demographic analysis considers several key population indicators of transit use and demand to guide PVRTA's transit service planning. These are:

- **Population Density:** Population density is the key determinant of transit use, with transit offering a more efficient way to move many people in a constrained area than personal vehicles. Knowing the population density of different parts of its service area can help a transit agency identify and plan for suitable types of transit to offer across multiple locations.
- **Older Adult Population:** Older adults are those residents 65 years of age or older. As people age, their ability to safely operate a personal vehicle often becomes limited, making transit or other shared transportation a vital part of maintaining mobility and accessing shops, medical resources, and entertainment.
- **Youth Population:** Youth are considered to be under the age of 18 years old. Many children and teenagers rely on transit to reach school, activities, sports, etc., often at times when their caregivers or school-sponsored transportation is unavailable.
- **Median Household Income and Low-Income Population:** Low-income household status, defined as households earning 100 percent of the federal poverty level (FPL) or less, is an important measure to understand the potential for transit demand, as low income individuals and households tend to rely on transit. FPL varies by the number of people in the household; in 2023, the FPL was \$14,580 for a household of one person and \$30,000 for a household of four.
- **Zero-Vehicle Households:** Zero-vehicle households are those with no access to a private vehicle. They are likely to rely on transit service as a reliable source of transportation to meet their mobility needs.
- **Populations other than Non-Hispanic White:** Demographic groups other than non-Hispanic white are likely to rely on transit.
- **Population with Disabilities:** Those with a physical or mental disability are less likely to be able to operate a personal vehicle and often rely on transit use, especially paratransit services.

- **Title VI Indicators:** Title VI indicators combine low income and population other than non-Hispanic white (as previously described) to guide Title VI planning efforts.
- **Job Density:** The density of jobs, like population density, indicates a concentration of trip generators that may be well-served by transit, especially at shift changes that may result in many people commuting to or from work at the same time.

Together, these demographic indicators of the populations that have a high propensity to depend (and therefore take) transit enable PVRTA to better contextualize existing service and best meet the unmet needs of different segments of the community. Sections 5.1.1 through 5.1.10 illustrate the distribution of each demographic indicator throughout PVRTA's service area.

Note that the demographic analysis is performed at the Census Block Group level. A Census Block Group is made up of a cluster of Census Blocks (the smallest geographic unit) within a Census Tract. It typically contains between 600 and 3,000 people.

5.1.1 Population Density

The population density, or population per square mile, in the PVRTA service area, is shown on Figure 29. The majority of PVRTA's service area has relatively low population densities. Population is primarily concentrated within the urban areas in the Southern Tier such as Springfield, Holyoke, and Westfield. Within the Northern Tier, Amherst and Northampton have high relative population densities. The overall population density of the PVRTA service area is 4,689 people per square mile.

5.1.2 Older Adult Population

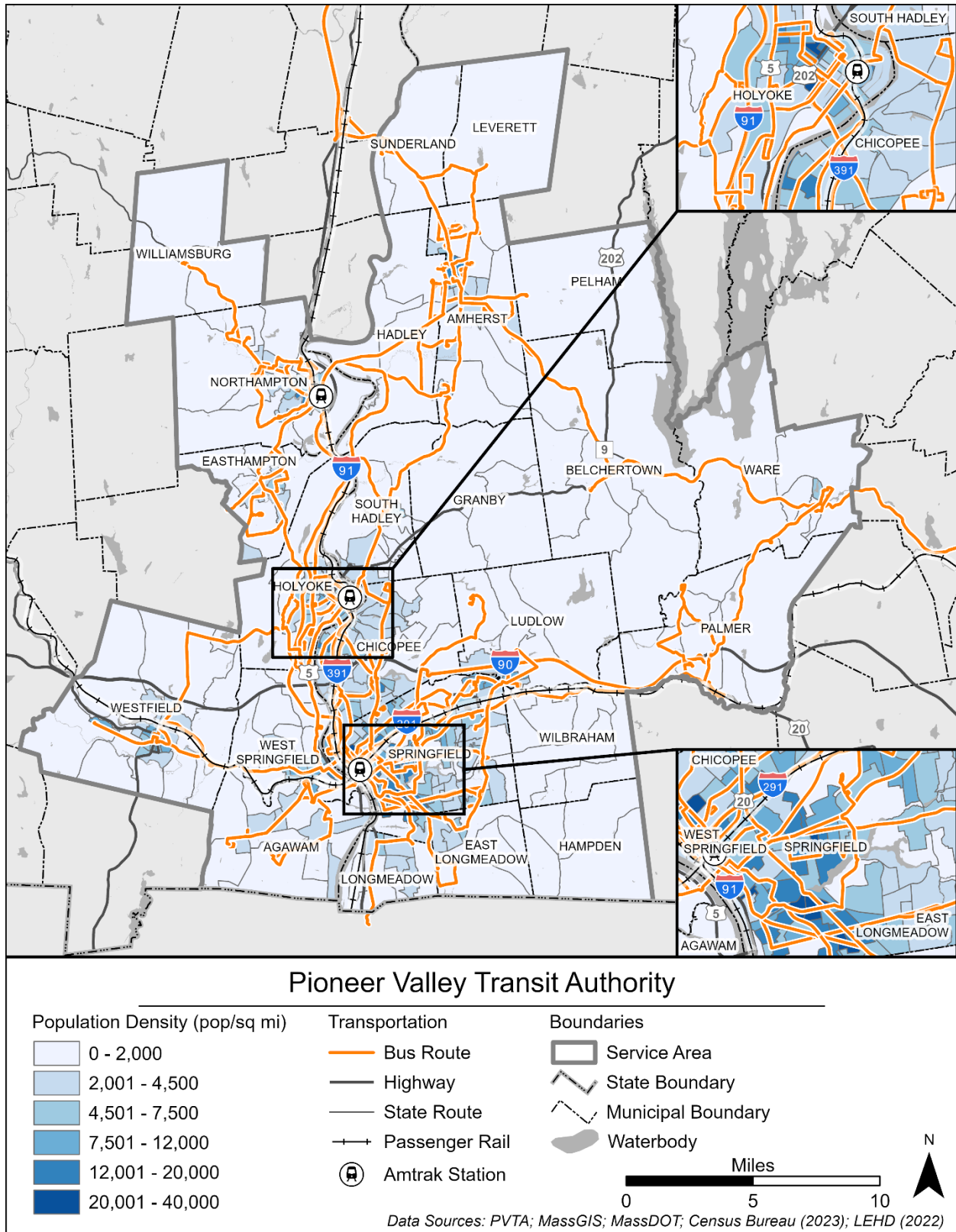
The PVRTA service area includes many communities with relatively high percentages of older adults (Figure 30). Older adults, defined as people 65 years of age and older, are likely to be transit dependent and/or prefer utilizing transit to maintain their independence to access medical appointments, grocery stores, recreational opportunities, and more.

Areas with high proportions of older adults can be found in Hadley, South Hadley, Springfield, and West Springfield. Generally, these pockets are connected to the PVRTA fixed route system. The area with a high percentage of older adults in Hadley (north of Rocky Hill Road just east of the Connecticut River) is an exception to this trend, as this location is not served by regular bus service. PVRTA does operate ADA paratransit and Dial-A-Ride service within Hadley. Additionally, all older adults within the PVRTA service area are eligible to book trips through the senior van service, which provides on-demand service Monday through Friday.

5.1.3 Youth Population

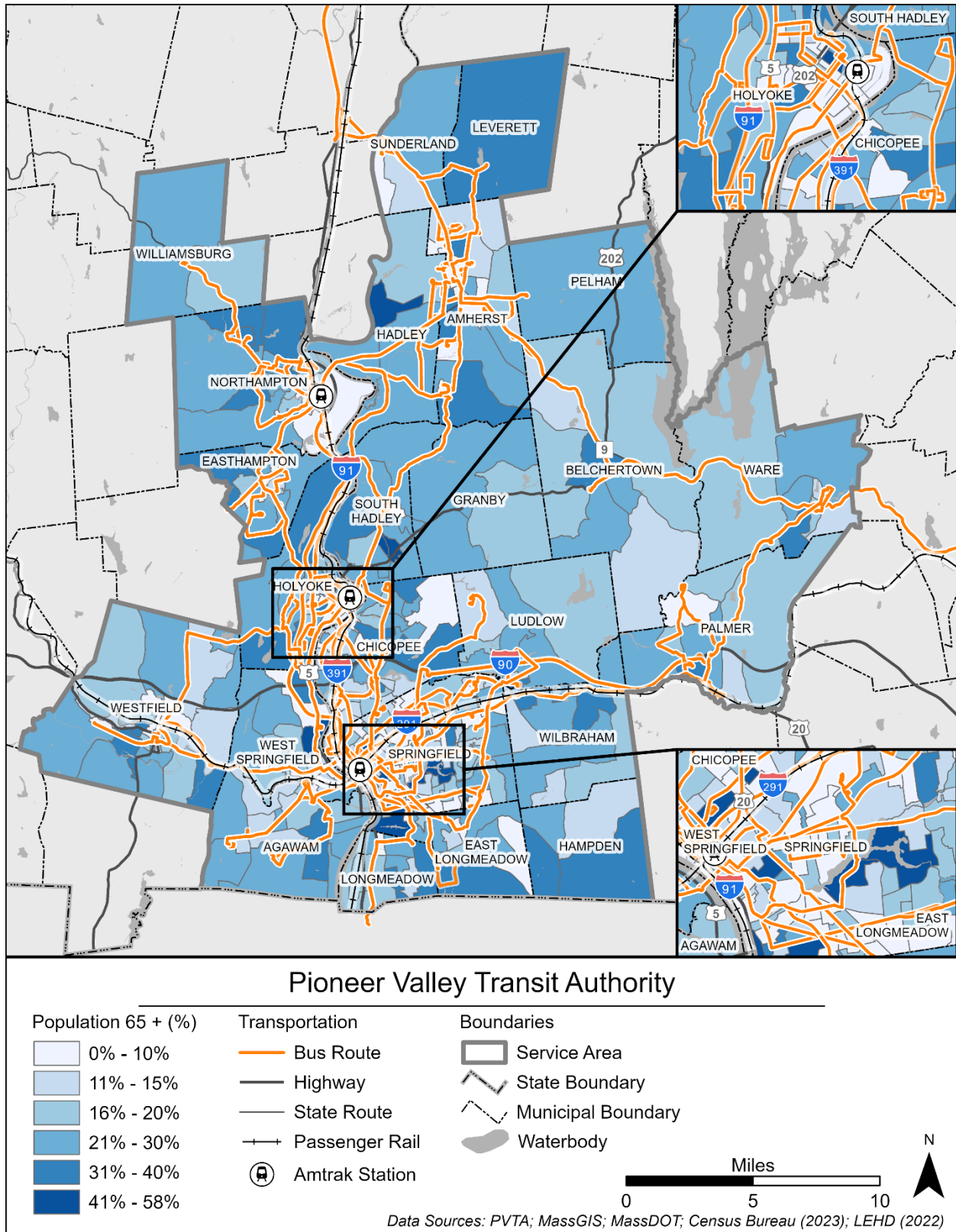
Generally, youth are likely to utilize transit as a reliable and convenient form of transportation in lieu of car ownership. The distribution of youths, defined as the percentage of the population under the age of 18, is shown on Figure 31. High proportions of youths are located adjacent to the Holyoke Amtrak Station and in concentrated pockets throughout the Springfield area. There are areas with high proportions of youth at the edges of Springfield such as in East Longmeadow. In East Longmeadow, these locations are served by the X90 crosstown route.

Figure 29. Population Density



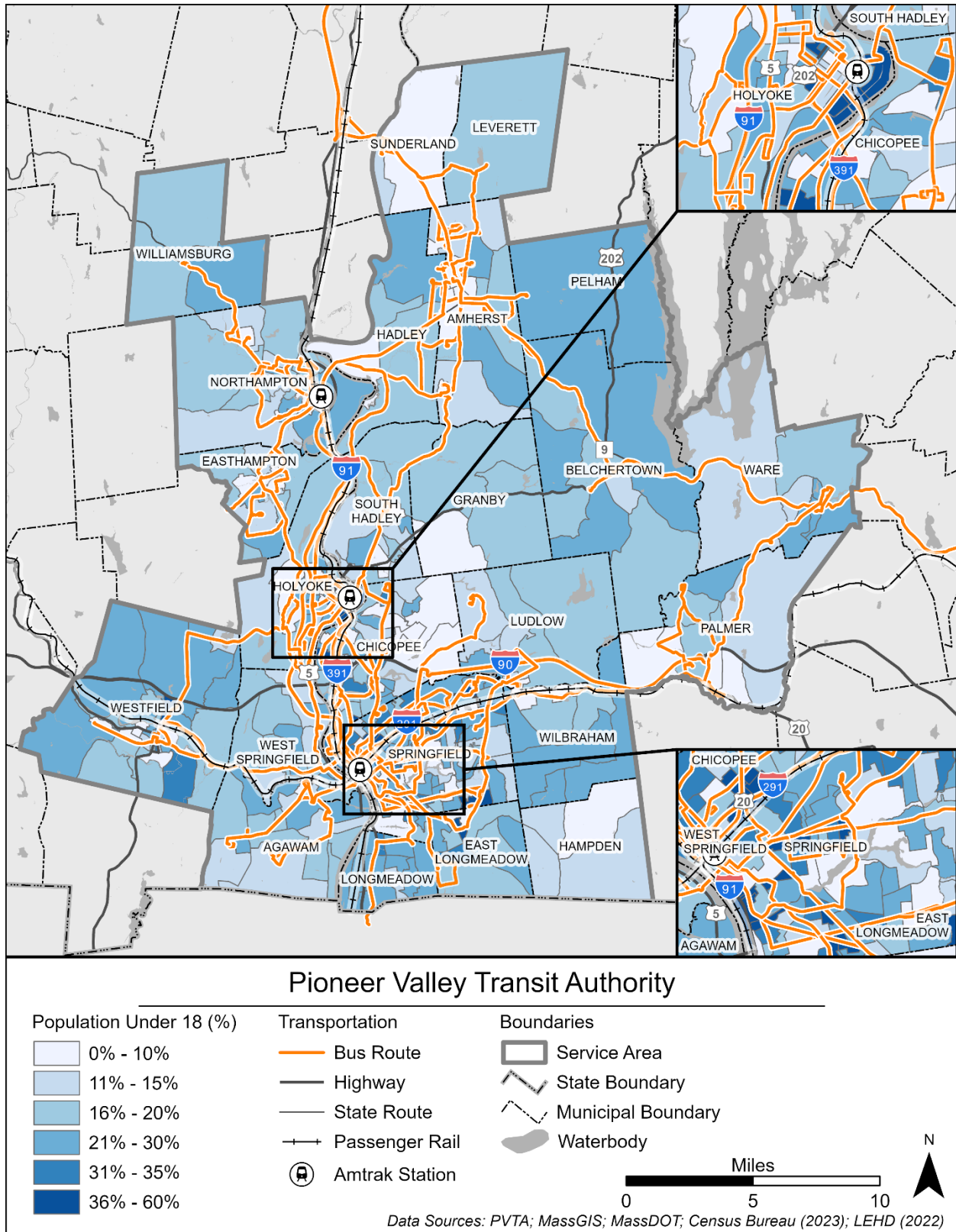
Source: AECOM (2025)

Figure 30. Older Adult Population



Source: AECOM (2025)

Figure 31. Youth Population



Source: AECOM (2025)

5.1.4 Median Household Income

Areas with the highest median household incomes in the PVRTA service area are in the communities of Amherst, Longmeadow, Westfield, West Springfield, Wilbraham, and Granby (Figure 32). Areas with the lowest median household incomes are located within central Holyoke and central Springfield. These two areas are well served by the PVRTA fixed route network by multiple routes.

5.1.5 Low-Income Population

The percentages of individuals categorized as low income are mapped on Figure 33. Households were considered low income if their household earnings were at or below the federal poverty level. High proportions of households classified as low income can be found surrounding the Holyoke Amtrak Station as well as central and south Springfield. Low-income residents in south Springfield are served by Route G5.

5.1.6 Zero-Vehicle Households

The majority of PVRTA's service area has low proportions of zero-vehicle households (Figure 34). The distribution of zero-vehicle households resembles that of low-income residents. Many low-income residents struggle to afford transportation and have low rates of personal automobile ownership as a result. As was the case with low-income residents, higher relative proportions of zero-vehicle households can be seen near the Holyoke Amtrak Station and especially surrounding Union Station in Springfield. These households are currently served by the existing fixed route network as many PVRTA routes converge in the two station areas. Union Station is a major transfer point for PVRTA routes and intercity transportation is also available from the station. Likewise, Holyoke Station is served by Amtrak and other intercity transportation providers. HTC is located within a 10-minute walk and is a major transfer station for PVRTA routes serving the Holyoke area.

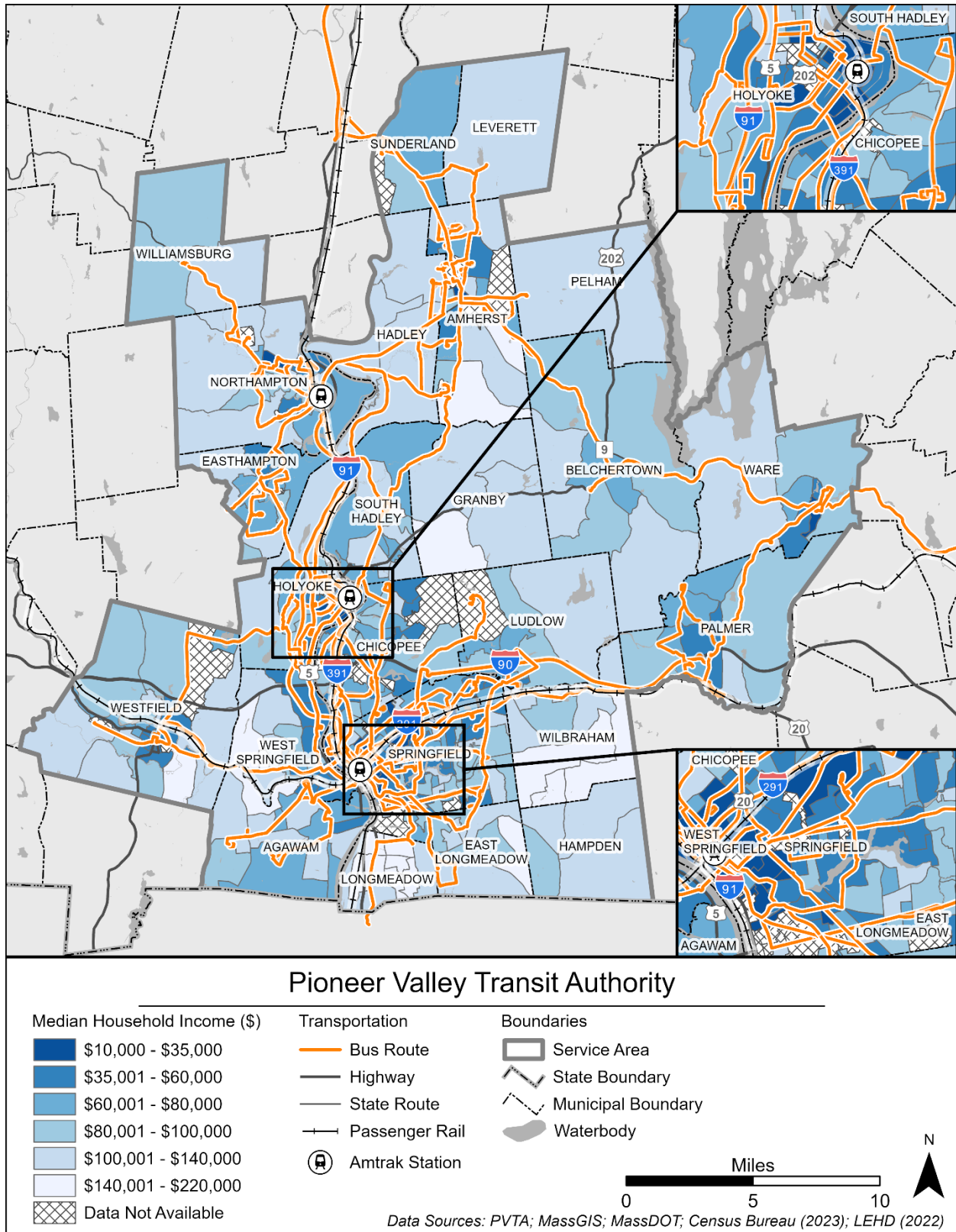
5.1.7 Population Other Than Non-Hispanic White

Demographic groups other than non-Hispanic white are mapped on Figure 35. These groups are found in greater proportions within the Springfield area and surrounding the Holyoke Amtrak station. Communities farther from Springfield, such as Ware, Leverett, or Williamsburg generally have high proportions of white residents and low proportions of non-white residents. These communities currently have limited service with one or two routes extending into the area, such as the Route WS, Route PG, and the B79 intercity route.

5.1.8 Adult Disabled Population

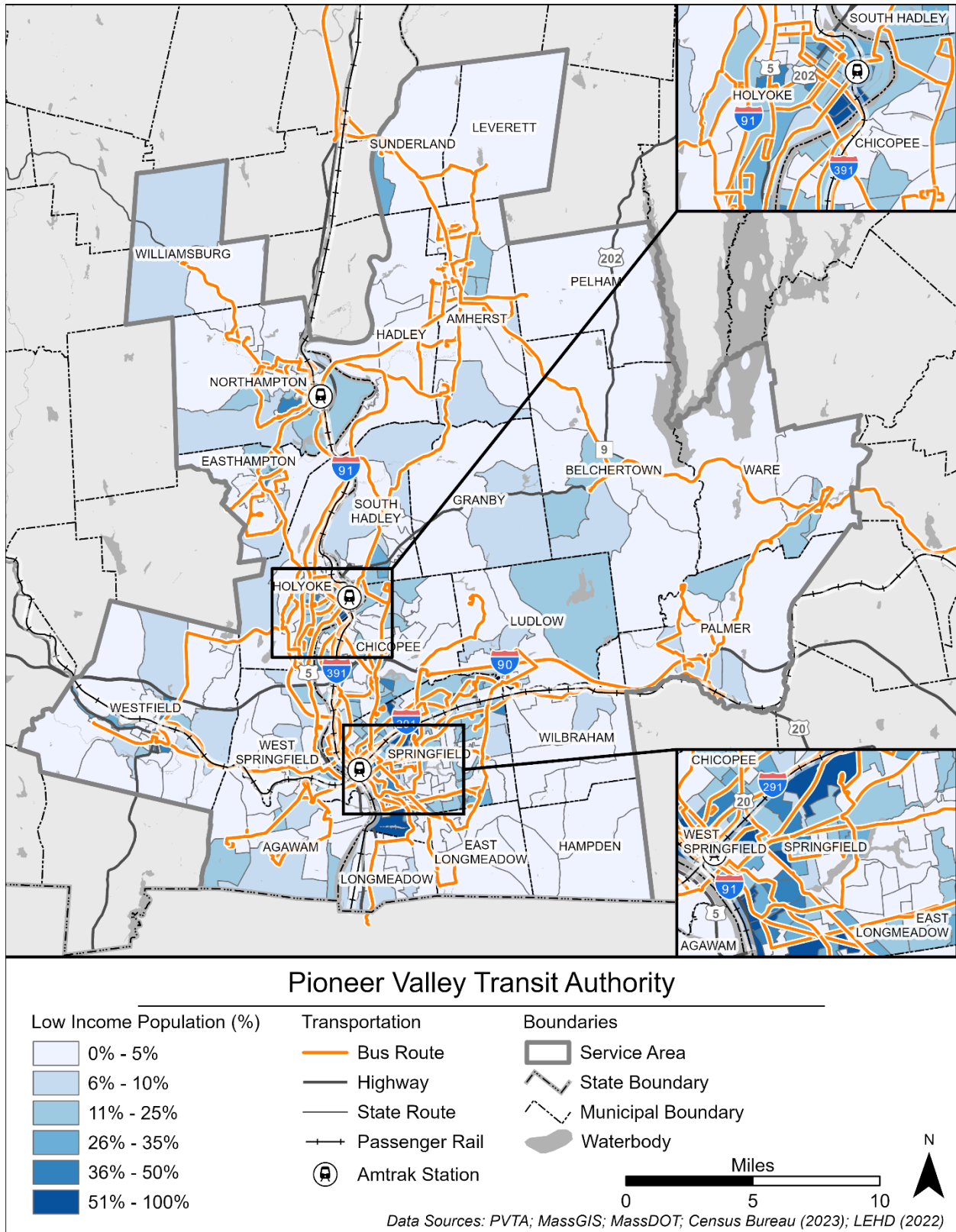
The adult disabled population is proportionately fairly evenly distributed throughout the service area (Figure 36). The areas with the highest proportions of adult disabled residents are located in central Springfield, East Springfield/Chicopee Falls, and near the West Springfield Big Y. These areas are served by existing fixed routes with those in central Springfield served by the highest number of routes and other areas served by fewer routes such as Route X90 and Route R14.

Figure 32. Median Household Income



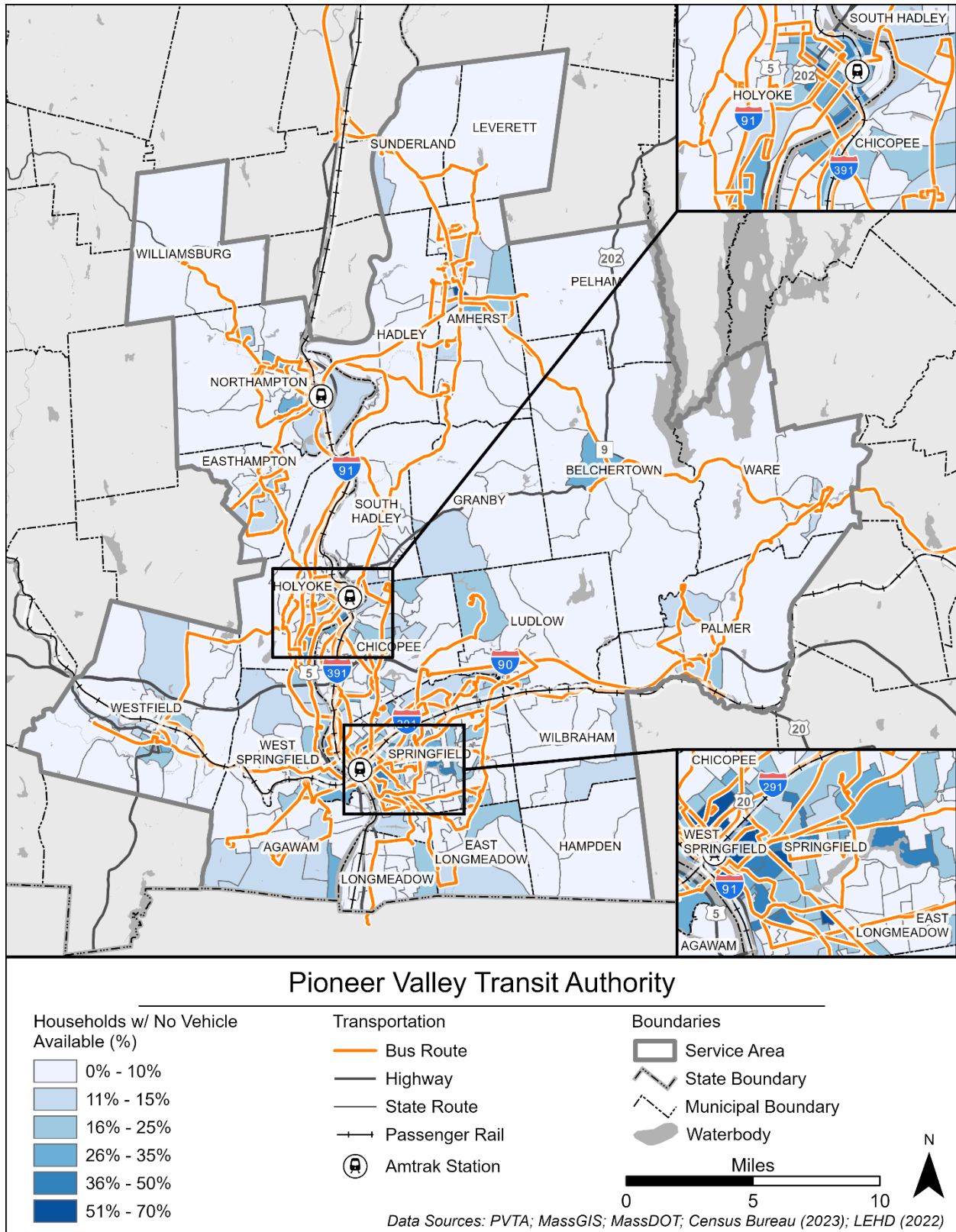
Source: AECOM (2025)

Figure 33. Low-Income Population



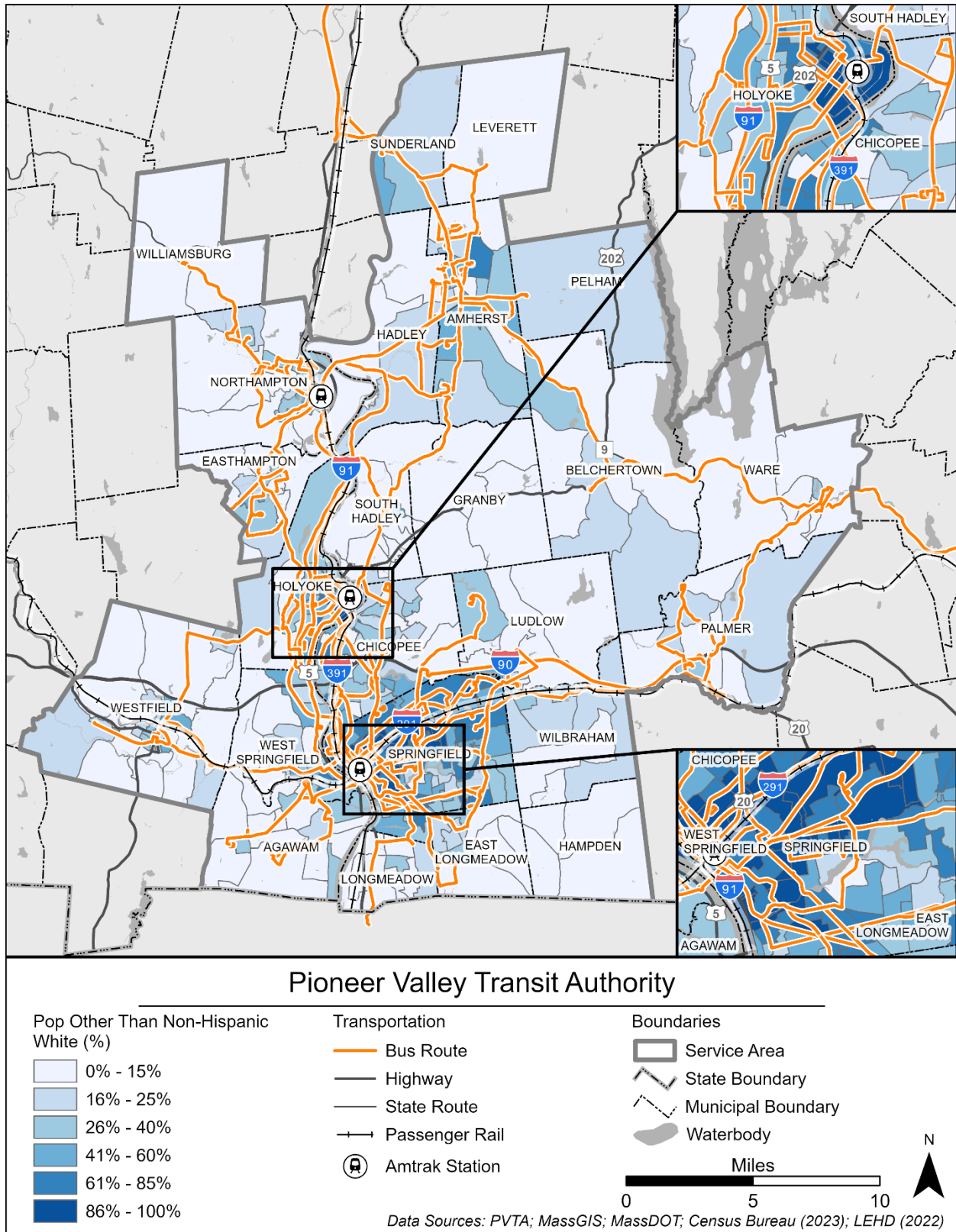
Source: AECOM (2025)

Figure 34. Zero-Vehicle Households



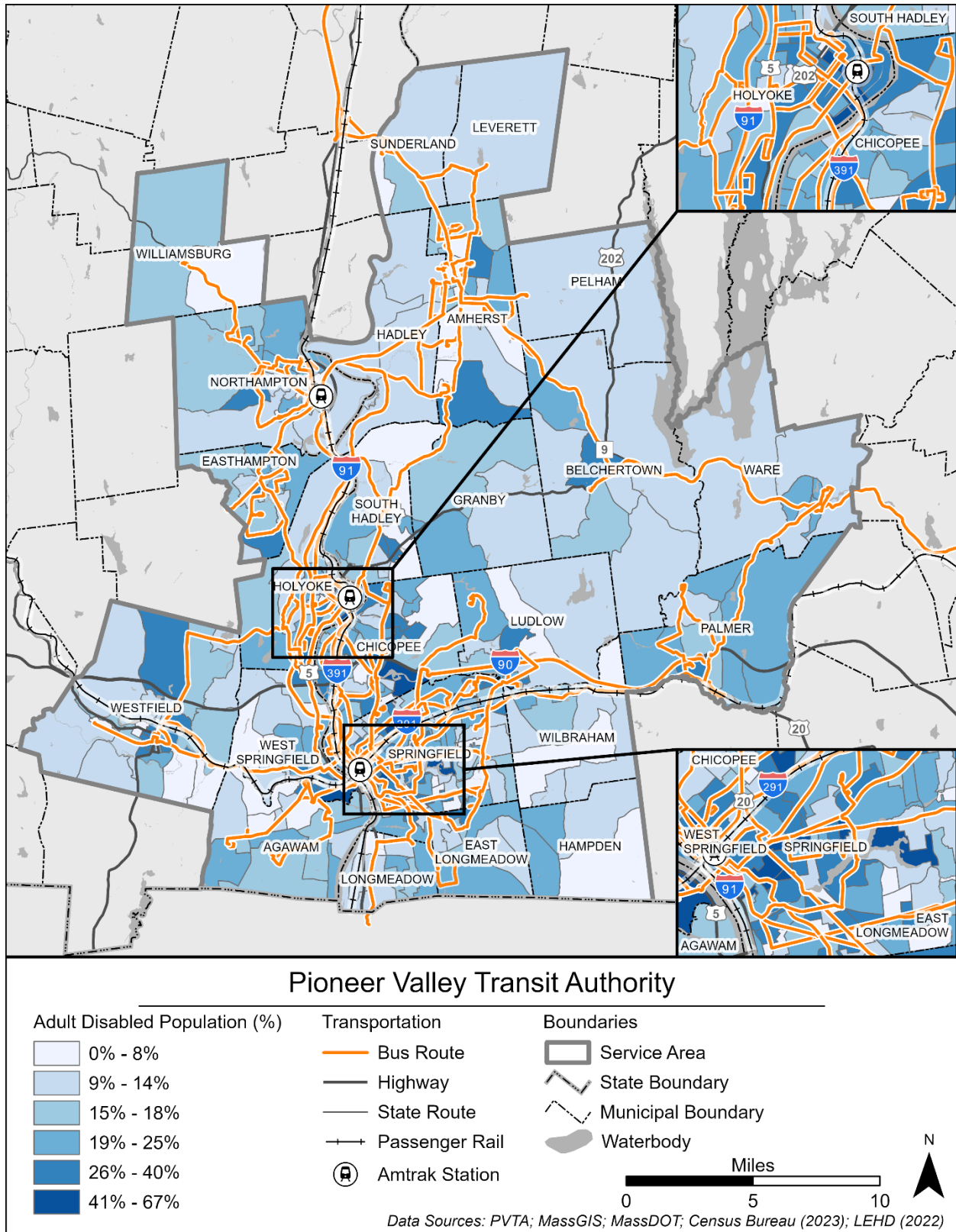
Source: AECOM (2025)

Figure 35. Population Other Than Non-Hispanic White



Source: AECOM (2025)

Figure 36. Adult Disabled Population



Source: AECOM (2025)

5.1.9 Title VI Population

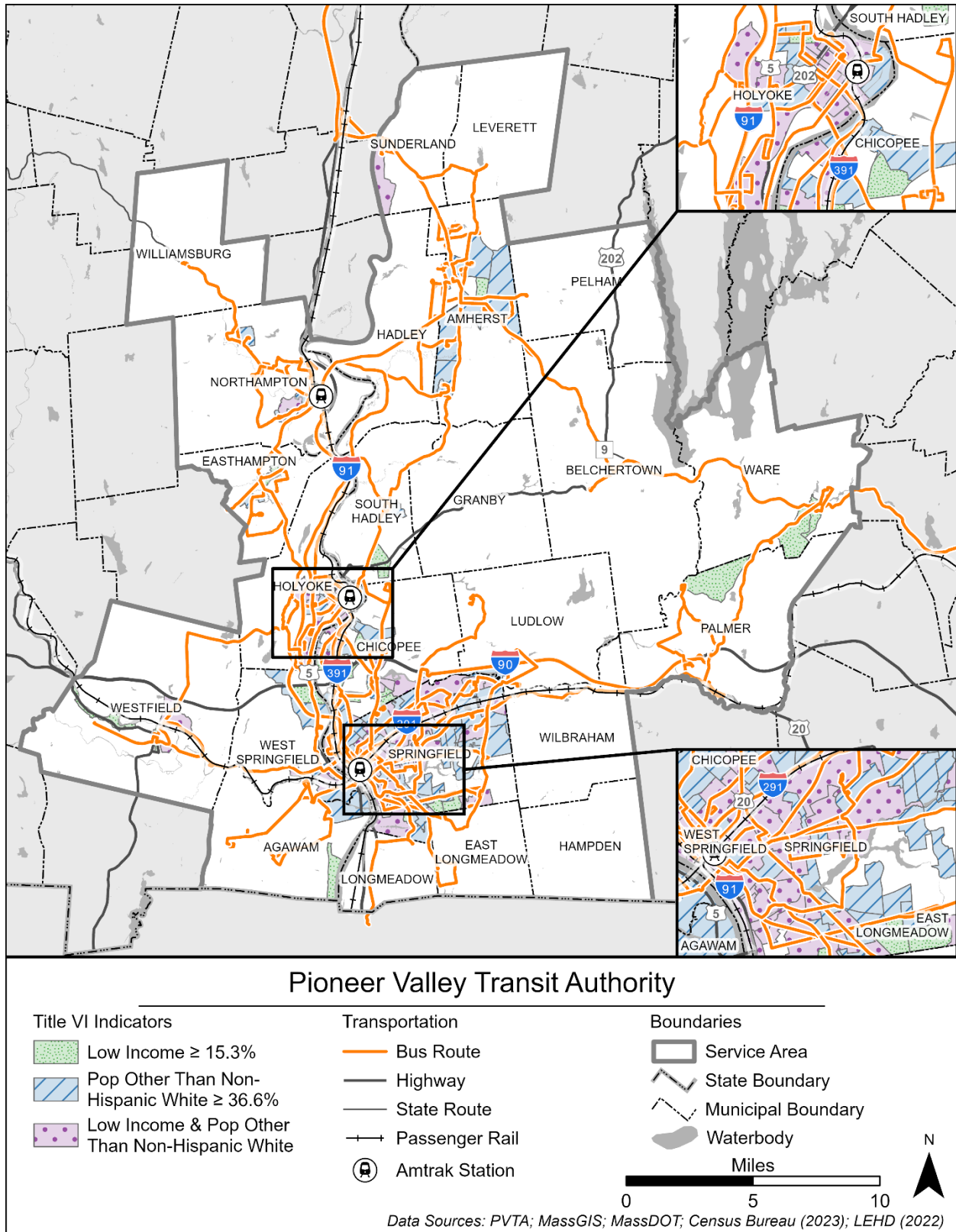
Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, national origin, sex, age, or disability in federally assisted program. Like other transit authorities, PVTa is required to comply with Title VI requirements as a recipient of federal funds. Title VI indicators include two factors: low income and population other than non-Hispanic white. For Title VI reporting, the threshold for block groups with high proportions of low income and non-Hispanic white populations is defined as those block groups with proportions of these populations over the area averages. PVTa defines high minority areas as block groups where more than 36.6 percent of the population is part of a minority group. The threshold for a block group to be considered as having a high percentage of low-income households is greater than 15.3 percent.

Figure 37 shows the location of Title VI populations within the PVTa service area. Areas where the proportions of low-income and non-Hispanic white populations exceed the thresholds are generally found within the urban areas of the service area, particularly in Springfield and Holyoke. Other areas of note include Northampton (adjacent to Northampton Station), central Westfield, and the southwestern corner of Sunderland. The closest PVTa fixed route services available to this population in Sunderland are Route 31 and Route PG. Westfield routes include Routes R10 and B23. Multiple fixed routes serve Holyoke, Northampton, and Springfield.

5.1.10 Job Density

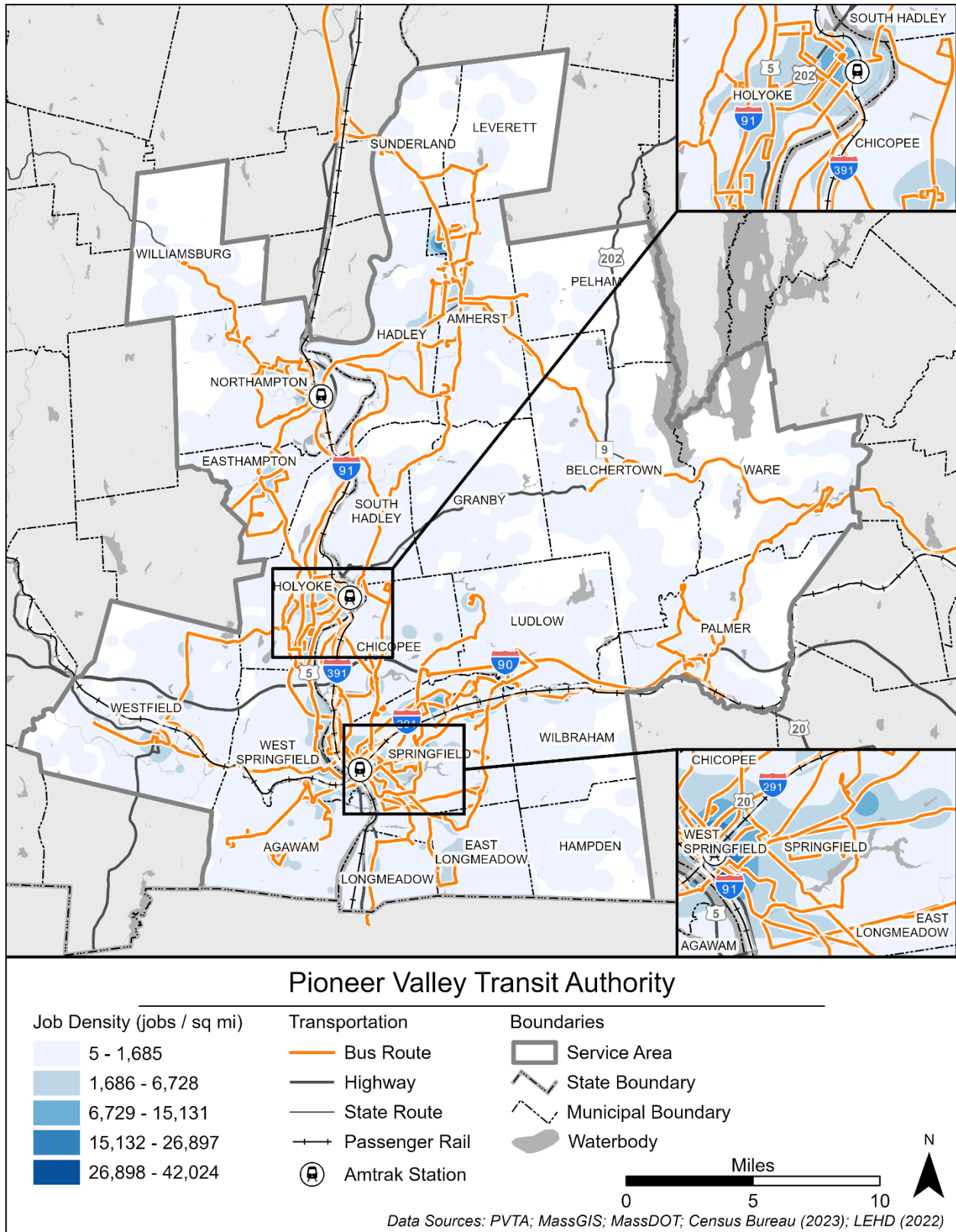
Jobs are fairly evenly distributed throughout the PVTa service area, as shown on Figure 38. The largest job clusters are located within central Springfield and North Amherst. The large job cluster in North Amherst is currently served by Route 31, Route 30, and Route 33. In general, job clusters are connected to the PVTa fixed route network.

Figure 37. Title VI Population



Source: AECOM (2025)

Figure 38. Job Density



Source: AECOM (2025)

5.2 Transit Score

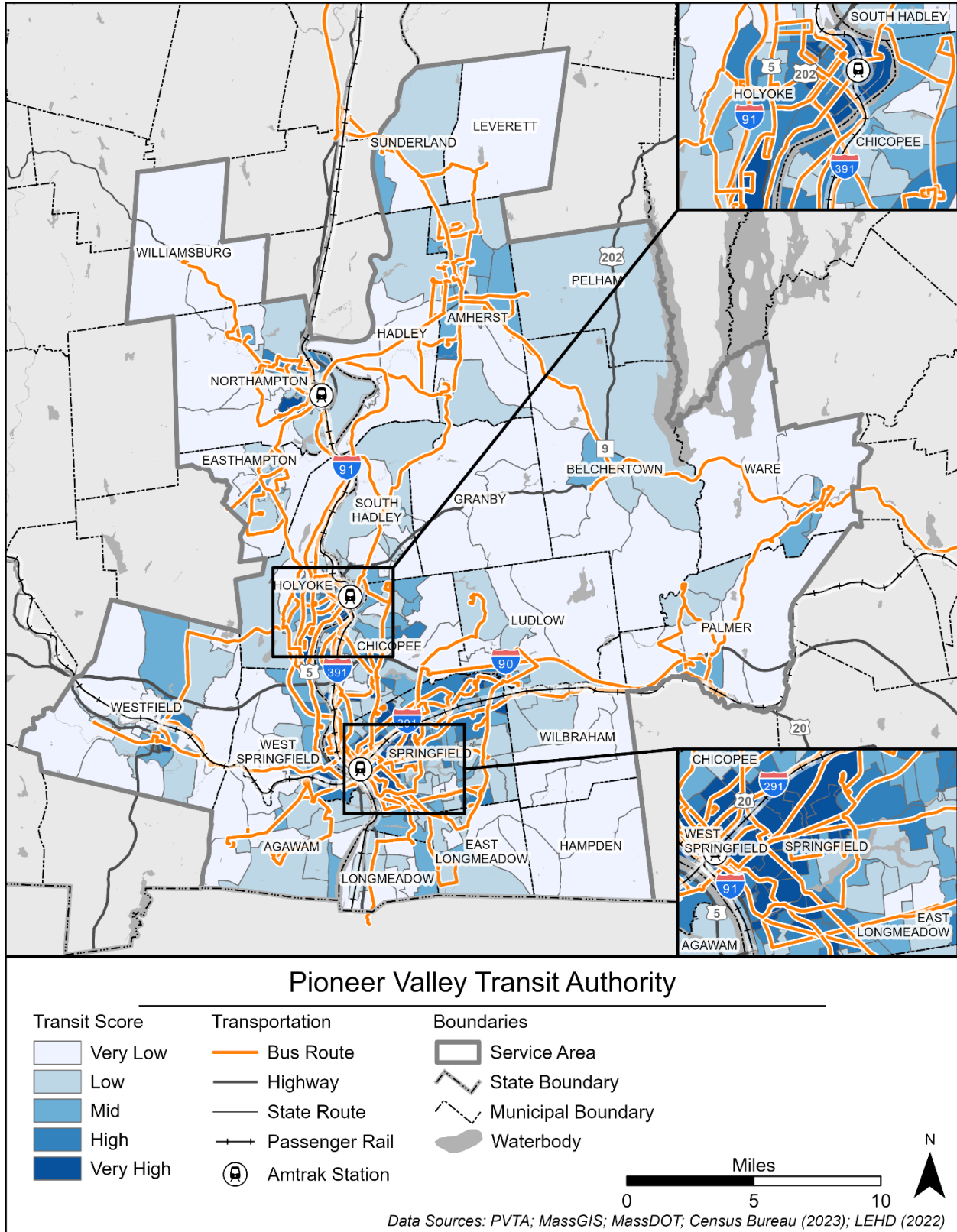
The transit score map provides a spatial analysis of the demographic characteristics of populations that typically indicate a high propensity to rely on transit. This transit score is a relative measure of how successful a fixed route transit system is expected to be in a region where most residents who can own cars and drive choose to do so. Used in conjunction with a congruency analysis of major transit generators, the transit score can be used to evaluate existing service and to identify areas of potential demand.

Block group data were used for this analysis. Transit-oriented variables used for the analysis were:

- Overall population density
- Overall job density
- Density of the population under the age of 18
- Density of the population over the age of 65
- Median household income
- Percentage of the population living below the poverty level
- Percentage of zero-car households
- Percentage of the population other than non-Hispanic white
- Percentage of the population with disabilities
- Number of existing transit trips

Figure 39 shows the combined transit score throughout the PVTa service area. Overall, PVTa service aligns with the combined results. As shown in the map, areas of Very High transit scores are primarily found within urban areas, particularly in central Springfield. The immediate surroundings of the Holyoke Amtrak Station and the west side of the Northampton Amtrak Station also scored Very High. Generally, communities outside the core urban areas along the Connecticut River scored Low and Very Low.

Figure 39. Transit Score



Source: AECOM (2025)

5.3 Public and Stakeholder Engagement

In addition to the quantitative demographic analysis presented in the previous sections, public and stakeholder engagement for PVRTA's CRTP was undertaken through outreach activities and the incorporation of robust survey data collected in years 2022 to 2024. Outreach activities included three virtual stakeholder meetings and a pop-up event. The activities were carried out in 2025, and a diverse range of voices and perspectives was captured to support CRTP development.

Key takeaways from these combined efforts include support for:

- **Expanding and adjusting service hours to match rider needs:** Strong support exists for extended evening and overnight service, especially to accommodate college students, shift workers, and medical appointments. Stakeholders emphasized the importance of early morning service and flexibility for riders with non-standard work hours.
- **Increasing frequency and reducing travel time:** Riders consistently requested more frequent service and shorter travel times, particularly on high-ridership routes, and a need to facilitate more direct connections and inter-neighborhood transfers to improve regional mobility.
- **Improving access to underserved areas:** Riders and non-riders highlighted gaps in service to small towns, less frequently served communities, and new destinations. Some routes are too far from potential users or take too long, limiting accessibility.
- **Enhancing the rider experience and bus cleanliness:** Feedback from surveys and pop-up events emphasized the importance of clean buses and stations, and positive interactions with drivers.
- **Boosting awareness and education about PVRTA services:** Stakeholders suggested collaborating with advocacy groups and using pop-up events to increase outreach.
- **Leveraging technology to improve paratransit experience:** Paratransit users recommended integrating mobile ticketing, real-time scheduling, and reducing wait times through tech solutions.

The subsequent sections detail feedback collected during these engagement efforts.

5.3.1 Recent Survey Efforts

Since 2022, PVRTA has gathered nearly 4,000 responses through targeted surveys implemented in regular intervals designed to identify current and emerging transit needs. These recent insights provide a robust foundation for shaping the CRTP, ensuring it reflects community priorities and rider expectations.

PVRTA conducted Northern System, Paratransit Rider, and Southern System surveys in 2022, 2023, and 2024, respectively. In addition, PVPC conducted a non-transit rider survey in 2023. PVRTA requested this survey to better understand who their potential customers may be, where they live and work, and what types of services may better serve them.

5.3.1.1 Survey Methods

Methods for these four survey efforts included:

- The Northern System onboard customer survey effort was conducted on its 19 fixed bus routes in March and April 2022 on days when UMass and other college institutions were in session, as well as during the academic spring break. Surveys were conducted

throughout the day to achieve a representative sample of riders' use patterns. More than 1,500 surveys were collected.

- The Paratransit rider survey was mailed to 1,000 paratransit and senior van service riders. Respondents could choose to either complete the mailed survey and send it back using a return envelope, or they could complete a survey online. Over one-third of recipients (376 people) completed the survey.
- The Southern System onboard customer survey was conducted on its 25 fixed bus routes in March, April, and May 2024. Surveys were conducted on days when the regional colleges were in session, as well as during the academic spring break. Surveys were conducted throughout both the day and across days of the week to achieve a representative sample of riders' use patterns. More than 1,500 surveys were collected.
- PVPC's non-rider survey effort was conducted by PVPC at specific locations, including UMass, Amherst Center, Northampton Court House, Northampton E.J. Gare Parking Garage, Chicopee Walmart, Holyoke Mall, MGM Springfield Garage, and Five Town Plaza. PVPC also sent over 7,000 large postcard flyers. A total of 415 non-transit rider surveys were collected.

5.3.1.2 Key Takeaways

Several key takeaways emerged from these engagement efforts.

Onboard Customer Survey Northern Service Region 2022

Takeaways included recommendations for:

- Improving on-time performance and overall travel time.
- Providing more frequent service, more direct connections between places already served by PVTA, and service to Bradley International Airport.
- Providing connections to neighboring municipalities and nearby transit centers.

Paratransit Rider Survey Report 2023

Takeaways included recommendations for:

- Integrating mobile ticketing into the paratransit ride booking flow and providing streamlined alternatives to mobile ticketing.
- Considering a driver scheduling program that could adapt to real-time changes.
- Providing information about PVTA services available to those who need medical rides, alongside alternative services.
- Considering ways to alleviate wait times using new technological advancements.

PVTA Southern System Customer Survey 2024

Takeaways included recommendations for:

- Increasing frequency on some routes.
- Decreasing travel time on some routes, prioritizing Routes G1 and R29.
- Prioritizing additional Sunday service from 5 AM to midnight on some routes.
- Increasing awareness and education of the BusPlus+ app.
- Increasing bus cleaning efforts on high ridership routes.
- Facilitating more inter-neighborhood transfers.

2023 Non-Rider Survey Report Full Region (Northern and Southern)

Takeaways included recommendations for:

- Investing in new routes that reach new destinations.
- Investing in more frequent service.
- Reviewing bus stop locations in proximity to destinations in Hampden County.
- Improving marketing efforts to adults aged 35 to 64 years.
- Addressing the bus stop safety disparity in Hampden County.
- Extending overnight service, emphasizing college student trips.
- Considering extended service in the mornings (5 AM to 7 AM) for commuters.

5.3.2 Virtual Stakeholder Meetings

PVTA hosted three virtual meetings with COAs, municipalities, businesses, and social service agencies to share agency updates and get stakeholder feedback.

5.3.2.1 Councils on Aging Virtual Stakeholder Meeting

- **Date/Time:** July 24, 2025, 9:30 AM to 10:30 AM
- **Location:** Virtually, through Zoom

Attendees

The meeting was attended by representatives of the COAs and other elderly service agencies across the Pioneer Valley region.

Agenda

- Welcome
- Introductions
- Comprehensive Regional Transit Plan (CRTP)
- PVTA Updates: Where We Are Today
- Feedback: Live Polls
- Q&A
- Next Steps

Interactive Activities

PVTA solicited comments from attendees through two activities: a live poll function with two questions and a whiteboard activity.

Poll questions included the following:

Question 1: Do you feel that the range of services for constituents meets their needs?

- Two respondents said “yes”, and two said “no”.

Question 2: Do you refer your members to other providers for point-to-point transportation?

- All four respondents said “Yes, to other private providers.”

A Hadley COA employee said transportation to Greenfield is a specific need. Their volunteer medical program assists but is bound by driver hours and a non-wheelchair accessible vehicle.

The Easthampton COA noted that they are referring people to the volunteer group Easthampton Neighbors as Easthampton does not have a local taxi company, nor do they have microtransit service. Additionally, staff have heard residents report PVRTA has requested up to 48 hours' advance notice for a ride.

Question 3: How has your programming changed post-COVID?

Respondents answered:

- "Our model changed completely as we were not partnered with the PVRTA pre-covid (maybe a few months) and ridership hadn't really built up. We are trying to establish the best way to meet all our needs."
- "Our programming has expanded some, but we continue to be handcuffed by the movement of all medical services from our town to several miles south."

Question 4: Why do you think ADA ridership has not recovered post-COVID?

Respondents answered:

- Clients state: "they have to wait a long time before and after and sometimes do not make it to appointments on time."
- Costs and convenience. Often have to wait longer than anticipated for return trips. Not all destinations have safe and sheltered waiting areas.

Question 5: Are there areas in the region that PVRTA doesn't currently serve that should be connected?

- Two respondents said "not sure" and one said "yes".

A Hadley COA employee said southern Hadley lacks summer service. The representative noted that one bus route is close to a senior community in Hadley, but another senior community would need to cross Route 9, a major arterial, to access the bus route. This arterial is a barrier for access due to safety concerns.

During an interactive whiteboard activity (Figure 40), attendees were asked to answer two questions with open-ended responses:

- How does PVRTA service help your members?
- Are you aware of the routes in your area? If not, why?

Figure 40. Councils on Aging Virtual Stakeholder Meeting Interactive Whiteboard Activity

PVTA Open Comment

Step 1: Click on a sticky note and then click on the whiteboard.

Step 2: Click on the note again to add your comment to be shared within the meeting.

Step 3: Add reactions from the menu to other comments on the board.

Sticky note

Stamp reactions

1. How does PVTA service help your members?

Please leave a comment.

Provides reliable fixed route service that people know where and when they can get a ride.

In our town the fixed schedule allows for access to the major retail areas from the most populated areas.

Medical rides to services outside of our town and region i.e. Baystate Springfield.

Medical rides when we cannot provide them.

2. Are you aware of the routes in your area? If not, why?

Aware of the routes on route 9 in our area.

Very aware.

Answers for the first question, "How does PVTA service help your members?" included:

- Provides reliable fixed route service that people know where and when they can get a ride.
- Medical rides when we cannot provide them.
- In our town the fixed schedule allows for access to the major retail areas from the most populated areas.
- Medical rides to services outside of our town and region i.e. Baystate, Springfield.

Answers for the second question, "Are you aware of the routes in your area? If not, why?" included:

- Aware of the routes on Route 9 in our area.
- Very aware.

Key Takeaways

The following are key takeaways from this meeting.

- Service to and from medical appointments is important to the region.
- There are currently gaps in service within the service area, particularly in smaller communities like South Hadley or Easthampton.

5.3.2.2 Area Business Owners Virtual Stakeholder Meeting

- **Date/Time:** July 24, 2025, 2 PM to 3 PM
- **Location:** Virtually, through Zoom

Attendees

This meeting was specifically targeted at engaging the business community in the region, not limited to small businesses, but also large companies currently in the industrial business park. The goal was to have a better understanding of the needs based on the different work shifts of their employees and to explore future transportation partnerships.

Agenda

- Welcome
- Introductions
- Comprehensive Regional Transit Plan (CRTP)
- PVRTA Updates: Where We Are Today
- Feedback: Live Polls
- Q&A
- Next Steps

Interactive Activities

PVRTA solicited comments from attendees through two activities: a live poll function and a whiteboard activity.

Poll questions included the following:

Question 1: Do you think PVRTA provides a valuable service?

- Seven of eight respondents answered "yes", and one answered "not sure".

Question 2: What is the earliest shift start time for your employees?

- Three respondents said 6 AM to 7 AM, two respondents said 7 AM to 8 AM, two said 8 AM to 9 AM, and one said "other." It was then clarified that at the Holyoke Mall, Starbucks and Target both have a 6 AM to 7 AM window.

Question 3: If you selected "other" above, please provide the time.

- The one respondent who selected other said it was an around-the-clock operation.

Question 4: What is the latest shift time for your employees?

- Two respondents selected 10 PM to 11 PM, one selected 6 PM to 7 PM and one selected "other." One attendee clarified that on Fridays and Saturdays at the Holyoke Mall, it closes to patrons at 9 PM so most employees leave at 10 PM.

Question 5: If you selected "other" above, please provide the time.

- The one respondent who selected other said it was an around-the-clock operation.

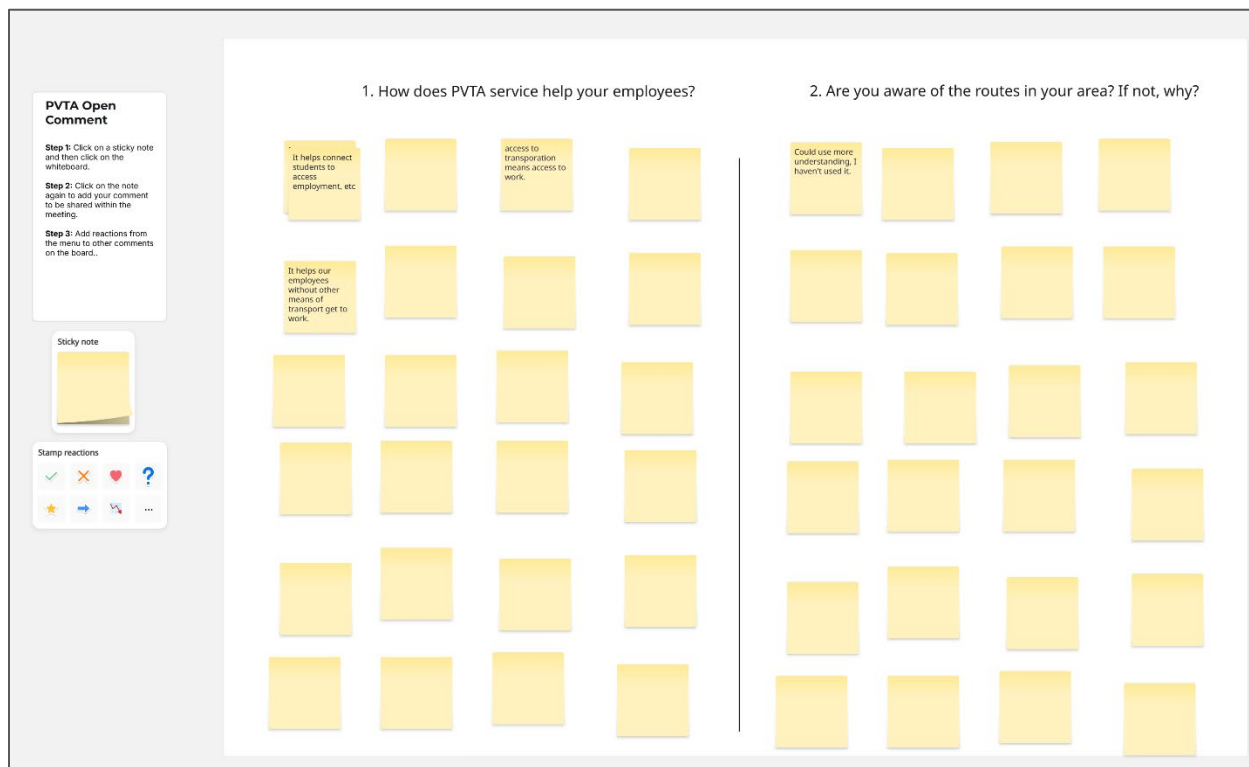
Question 6: Would you be interested in aligning your shift change times to help your employees use PVRTA?

- Two respondents said "yes", one respondent said "no", and one respondent said "need more information."

During an interactive whiteboard activity (Figure 41), attendees were asked to answer two questions with open-ended responses:

- How does PVRTA service help your employees.
- Are you aware of the routes in your area? If not, why?

Figure 41. Area Business Owners Virtual Stakeholder Meeting Interactive Whiteboard Activity



Answers for the first question, “How does PVTA service help your employees?” included:

- It helps connect students to access employment, etc.
- Access to transportation means access to work.
- It helps our employees without other means of transportation get to work.

Answers for the second question, “Are you aware of the routes in your area? If not, why?” included:

- Could use more understanding, I haven’t used it.

Key Takeaways

The following are key takeaways from this meeting.

- PVTA provides a valuable service.
- PVTA users have a variety of start and end times for work, and some employers are willing to work with PVTA on timing shift schedules with bus hours.
- Some employers are not entirely aware of transit options and have limited flexibility to adjust their shift times to match existing schedules.

5.3.2.3 Municipalities and Bicycle Advocacy Virtual Stakeholder Meeting

- **Date/Time:** July 30, 2025, 10 AM to 11 AM
- **Location:** Virtually, through Zoom

Attendees

The meeting targeted engagement specifically with local municipalities and regional cyclist advocacy groups. The purpose of the meeting was to gain a better understanding of how PVRTA services impact the cycling community, as well as to strengthen partnerships with local municipalities.

Agenda

- Welcome
- Introductions
- Comprehensive Regional Transit Plan (CRTTP)
- PVRTA Updates: Where We Are Today
- Feedback: Live Polls
- Q&A
- Next Steps

Interactive Activities

PVRTA solicited comments from attendees through two activities: a live poll function and a whiteboard activity.

Poll questions included the following:

Question 1: How does PVRTA service help your community?

Respondents answered:

- Provides a vital service to people who do not have cars.
- Well as a paratransit rider, my community of riders rely on PVRTA.
- Helps people without personal transportation get around the community for work, and healthcare.
- It allows our members to have more independence and gives them the ability to get to where they need to be.
- It's a critical community service to assist individuals in our area with transportation and access to the things they need to live in the community.

One attendee shared that the free bus is very helpful and asked if it will be continued. He was told it will be extended to June 2026.

Question 2: Do you think first mile/last mile connections to PVRTA could be improved?

- Five of seven respondents said "yes", and two said "not sure".

One attendee shared that last mile transportation is challenging. Her clients do not ride because it takes too long to get there and back, and it is not feasible to reach the actual route. Her community also has issues in areas in the outer regions of the PVRTA service area, such as Westfield. She also noted that access to healthcare can be an issue, as well as work and transportation in general.

Question 3: Are there areas in your region or others that PVRTA doesn't currently serve that should be connected?

- Three of six respondents answered "yes, areas that are served but with low frequencies are growing", two responded "other," and one responded "yes, areas that currently have no PVTA service are growing".

Question 4: If you answered "other" above, share the reason or location.

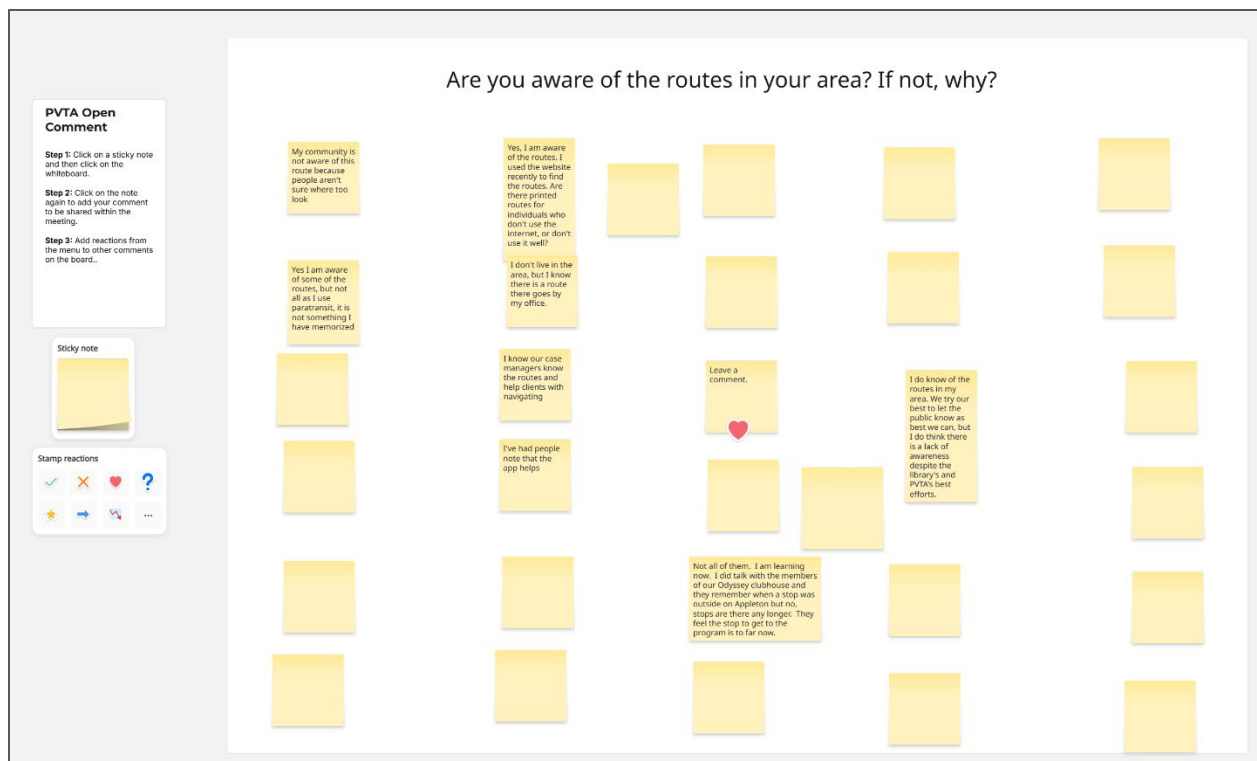
Respondents answered:

- I don't know.
- We primarily serve folks in the greater Springfield, Holyoke, Chicopee areas so the individuals we serve are generally well covered. I can find out if we have other services area needs.

A Palmer Library representative shared that there are some stops in Palmer, but they are hard for folks to get to and also take a long time to get to other towns and cities.

During an interactive whiteboard activity (Figure 42), attendees were asked to answer a question with open-ended responses: Are you aware of the routes in your area? If not, why?

Figure 42. Municipalities and Bicycle Advocacy Virtual Stakeholder Meeting Interactive Whiteboard Activity



Answers included:

- My community is not aware of this route because people aren't sure where to look.
- Yes, I am aware of some of the routes, but not all as I use paratransit, it is not something I have memorized.
- Yes, I am aware of the routes. I used the website recently to find the routes. Are there printed routes for individuals who don't use the internet, or don't use it well?
- I don't live in the area, but I know there is a route there goes by my office.
- I know our case managers know the routes and help clients with navigating.

- I've had people note that the app helps.
- Not all of them. I am learning now. I did talk with the members of our Odyssey Clubhouse and they remember when a stop was outside on Appleton but no stops are there any longer. They feel the stop to get to the program is too far now.
- I do know of the routes in my area. We try our best to let the public know as best we can, but I do think there is a lack of awareness despite the library's and PVRTA's best efforts.

Key Takeaways

The following are key takeaways from this meeting.

- Desire for more education on PVRTA services in the region:
 - Routes
 - How to ride
 - ADA service
- Opportunities for PVRTA to collaborate with advocacy groups in the area through training, pop-ups, and providing further information.
- There is still a lack of awareness for some in the region.
- Some routes are too far from potential users, or take too long.
- Users who don't have other transportation methods need PVRTA.
- Desire for more services to less frequently served communities as well as communities without service.

5.3.3 Pop-Up Event

To support the development of the CRTP, PVRTA held a pop-up outreach event at Springfield Union Station and engaged with riders (Figure 43). Riders were invited to share their thoughts on current transit services, future improvements, priorities for regional mobility, or anything on their mind. An interactive activity invited riders to select which PVRTA priorities resonated with them, and additional feedback was collected on comment cards.

- **Date/Time:** September 10, 2025, 3 PM to 5 PM
- **Location:** PVRTA Union Station Bus Terminal in Springfield

Figure 43. Pop-Up Event Engagement



5.3.3.1 Interactive Activity

For the interactive activity “Identify Your 5 Priorities,” riders were given five marbles each that they could then put in jars that corresponded to five different PVTa priority areas. Participants could place their marbles in the jars in any quantity depending on which priorities they felt were most important. Priorities were displayed on boards in both English and Spanish (Figure 44). Activity results are in Table 20.

Figure 44. Interactive Activity Board: Identify Your 5 Priorities



Table 20. Pop-Up Event: Identify Five Priorities

Priority	Number of Marbles Received
On-Demand PVTA Service (Like Uber/Lyft)	60
Improve Connections To Bike Share	51
Increase Frequency	73
Service Where There Is No Bus Service Now	106
Extend Service Hours	140

5.3.3.2 Key Takeaways

The following are key takeaways from the pop-up event:

- The interactive activity and comment cards both saw the most support for extending service hours later into the evening.
- Other common comments focused on issues related to the experience of riding PVTA including cleanliness of buses and facilities and interactions with drivers.
- Some passengers have issues with unreliability of real-time arrival times on the mobile app.

6 Performance Measures

Performance measurement is a foundational component of enhancing operational efficiency, improving the customer experience, ensuring safety, and meeting the numerous other goals that a transit agency may have. This CRTP is directly tied to the MOU negotiated bilaterally between MassDOT and PVTa, including the performance monitoring program. This chapter outlines the performance measures for PVTa and targets for each of them. Performance data can be found in Chapter 4.

PVTa reports performance data on a quarterly basis across a variety of metrics as described in this chapter. The targets are updated annually as mutually agreed upon by PVTa and MassDOT. Where an RTA is performing well, there is an opportunity for sharing of best practices to other RTAs in the Commonwealth. Where an RTA is not meeting targets, this is an opportunity to assess avenues for potential improvements.

A summary of performance measures is provided in Table 21.

Table 21. Performance Measures Overview

Category	Metric	Definition	Desired Direction
Ridership	Unlinked passenger trips	Number of boardings on public transportation vehicles (unlinked passenger trips)	Higher
Ridership	Unlinked passenger trips per vehicle revenue mile	Unlinked passenger trips divided by total miles operated while vehicles are in service (revenue miles)	Higher
Ridership	Unlinked passenger trips per vehicle revenue hour	Unlinked passenger trips divided by total hours operated while vehicles are in service (revenue hours)	Higher
Financial	Operating expenses per vehicle revenue mile	Total fully allocated operating expense divided by revenue miles	Lower
Financial	Operating expenses per vehicle revenue hour	Total fully allocated operating expense divided by revenue hours	Lower
Financial	Operating expenses per unlinked passenger trip	Total fully allocated operating expense divided by revenue unlinked passenger trips	Lower
Financial	Farebox recovery ratio	Total fully allocated operating expense divided by farebox revenue	Higher
Customer Service & Satisfaction	On-time performance	Vehicle departures that meet the RTA definition of "on-time" (see Section 6.3)	Higher
Customer Service & Satisfaction	Scheduled trips operated	Proportion of scheduled trips which are operated (i.e., not "dropped")	Higher

Category	Metric	Definition	Desired Direction
Asset Management	State of Good Repair	Proportion of capital assets beyond useful life (see Section 6.4)	Lower
Safety	Various	Multiple safety metrics and targets	Varies

Source: NTD Database Manual

6.1 Ridership

Ridership is reported as unlinked passenger trips. Each boarding is counted and summed toward the overall unlinked passenger trips metric. This metric is also normalized to vehicle revenue miles and vehicle revenue hours to better understand how ridership compares to the level of service provided. Monthly data are submitted to MassDOT quarterly and compared to the annual target set by PVRTA. Table 22 shows PVRTA ridership targets.

Table 22. Ridership Metrics and Targets (FY 2026)

Metric	Fixed Route	Demand Response
Unlinked passenger trips	10,000,000	248,148
Unlinked passenger trips per vehicle revenue mile	2.00	0.10
Unlinked passenger trips per vehicle revenue hour	30.00	1.45

Source: MassDOT (2025)

6.2 Financial

Each RTA differs in the level of service, geographic area, modes operated, and other aspects of its operation, and as such financial metrics are reported normalized to revenue miles, revenue hours, and unlinked passenger trips. Typically, each RTA verifies its financial data annually through an end-of-year audit. Therefore, annual data are submitted to MassDOT for comparison against performance targets.

Farebox recovery ratio is a measure of revenue collected through fares as a ratio to operating expenses. As of FY 2026, all RTAs will operate fare-free fixed route service and fare-free complementary paratransit (though “premium” demand response service beyond federal ADA requirements may still charge fares). Additionally, PVRTA is currently collecting fares for Route B79, and as a result, the agency’s farebox recovery ratio target for fixed route is higher than zero percent. PVRTA financial targets are displayed in Table 23.

Table 23. Financial Metrics and Targets (FY 2026)

Metric	Fixed Route	Demand Response
Operating expenses per vehicle revenue mile	\$9.73	\$4.42
Operating expenses per vehicle revenue hour	\$145.97	\$64.35
Operating expenses per unlinked passenger trip	\$4.87	\$44.38
Farebox recovery ratio	10.80%	4.50%

Source: MassDOT (2025)

6.3 Customer Service and Satisfaction

Reliability of service is an important element to providing transit that meets customer needs. Therefore, customer service and satisfaction is measured through on-time performance of fixed route and demand response modes. The definitions of on-time performance for each mode are:

- **Fixed Route:** Vehicle is not early or more than 5 minutes late relative to the fixed route schedule.
- **Demand Response:** Vehicle arrives within the pickup window or 5 minutes prior.

Scheduled trips operated also measures service reliability, as “dropped” trips may suggest labor capacity limitations, equipment failure, or other operational constraints. From the customer’s perspective, they are waiting for a bus that does not arrive, which is especially challenging for routes with less frequent service.

Monthly data are submitted to MassDOT quarterly and compared against the annual target. Table 24 shows PVTa customer service targets for fixed route and demand response service.

Table 24. Customer Service and Satisfaction Metrics and Targets (FY 2026)

Metric	Fixed Route	Demand Response
On-time performance	75.00%	95.00%
Scheduled trips operated	100.00%	100.00%

Source: MassDOT (2025)

6.4 Asset Management

The state of good repair for capital assets is a priority of MassDOT, FTA, and PVTa. Equipment in poor condition can result in reliability issues, safety risks, poor customer perceptions, and other problems that impede a successful transit operation. Each RTA has a TAM Plan that lays out the condition of facilities and priorities for capital improvements. The TAM Plan must be submitted every four years or whenever the RTA updates its targets, whichever comes first. Targets are reviewed annually and any updates are submitted to NTD. Table 25 breaks down PVTa targets for the percentage of vehicles that have exceeded their useful life, by vehicle type.

Table 25. Asset Management Metrics and Targets (FY 2025)

Metric	Target
Vehicles – Articulated Bus	0.00%
Vehicles – Bus	34.00%
Vehicles – Cutaway	57.00%
Equipment – Automobiles	60.00%
Equipment – Trucks and Other Rubber Tire Vehicles	61.00%
Facilities – Passenger/Parking	0.00%
Facilities – Admin/Maintenance	0.00%

Source: MassDOT (2025)

6.5 Safety

Safety is the number-one priority when delivering transit service. As an urban system, PVRTA develops a PTASP that defines specific safety goals for the authority. These are updated annually in coordination with PVPC and MassDOT. Performance data are submitted annually in NTD then provided to MassDOT. Safety targets and performance are shown in Table 26.

Table 26. Safety Metrics and Targets (Calendar Year 2024)

Metric	Fixed Route	Demand Response
Fatalities Target	0.00	0.00
Fatality Rate (per 1 million vehicle revenue miles)	0.00	0.00
Injuries Target	10.00	4.00
Injury Rate (per 1 million vehicle revenue miles)	7.60	5.90
Safety Events Target	6.00	4.00
Safety Event Rate (per 1 million vehicle revenue miles)	4.60	5.90

Source: MassDOT (2025)

6.6 Annual Performance

Two annual performance metrics reported to MassDOT vary by RTA. Each RTA may identify and report a metric and target of their choosing, and a second metric is chosen through the CRTP process based on prioritized recommendations. The metrics for PVRTA are:

- **RTA-Choice Metric:** Mean Miles Between Mechanical Failure
- **RTA-Choice Metric Tied to CRTP:** Pilot Northampton-Springfield Express Ridership

Other annual performance metrics are external partnerships and fleet composition by fuel type. Both are reported annually and are not compared against an annual target. Table 27 shows the breakdown of PVRTA's current fleet by fuel type and the number of partnerships by service type.

Table 27. Annual Performance Metrics (FY 2026)

Metric	Fixed Route	Demand Response
Percent fleet composition - Electric	12.00%	0.00%
Percent fleet composition - Hybrid	13.00%	0.00%
Percent fleet composition - Compressed Natural Gas	0.00%	0.00%
Percent fleet composition - Diesel	75.00%	0.00%
Percent fleet composition - Gasoline	0.00%	100.00%
External Partnerships	66	11

Source: MassDOT (2025)

7 Trends and Uncertainties

As part of the CRTP update, PVRTA examined potential alternative scenarios based on future uncertainties and market trends. This chapter describes likely market trends and uncertainties, how they could impact transit ridership in the PVRTA region over the next five years, and how PVRTA could address them.

In developing this CRTP, recommendations were drafted that align with different ridership scenarios given their operational, policy, and financial implications. Organizing recommendations by ridership scenario enables PVRTA to use the CRTP to decide which recommendations are most applicable to current conditions. Key topics and solutions that arose during the scenario discussions for PVRTA to consider in the future are presented in this chapter.

7.1 Future Uncertainties

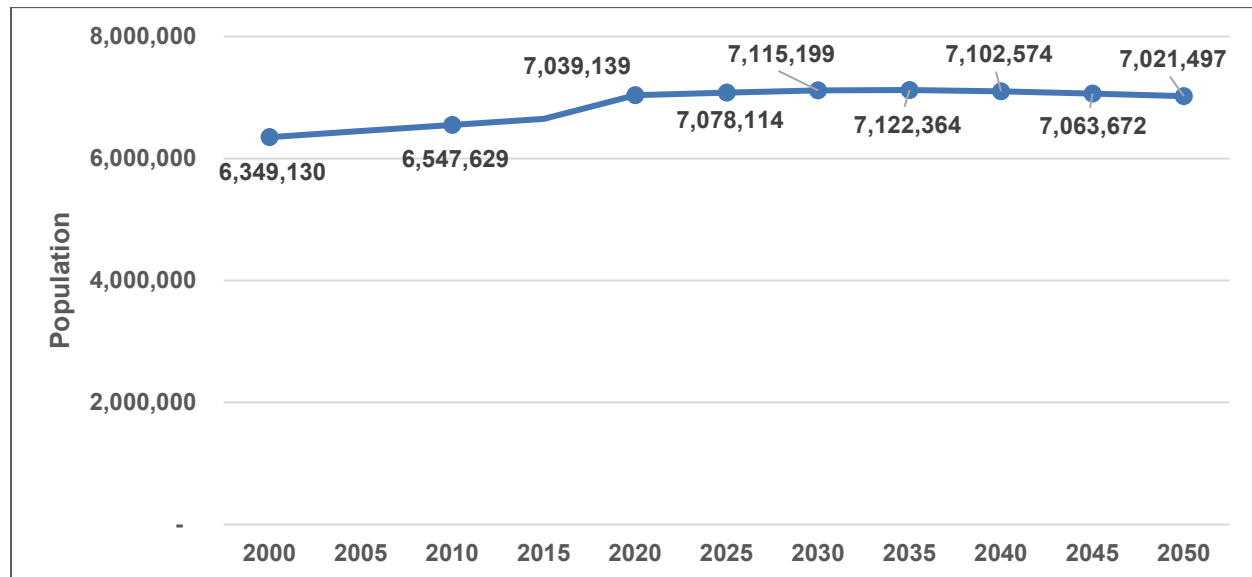
As PVRTA prepares for the next five years, it is important to recognize and plan for trends that are both highly impactful and deeply uncertain. These uncertainties may define the operating circumstances of PVRTA, possibly influencing factors such as public expectations of transit, service models, funding sources, transit technologies and infrastructure, and ultimately ridership demand. The following section outlines critical uncertainties that were explored during the workshop due to their potential to plausibly shape the future of PVRTA's operations.

7.1.1 Population and Demographics

Population trends—including migration and aging—could impact transit ridership in the PVRTA region. This section outlines some of those key population trends and implications for PVRTA.

7.1.1.1 General Population Trends

Massachusetts has experienced consistent population growth throughout the twenty-first century; however, as seen in Figure 45, the overall state population is projected to plateau with little-to-no growth from 2025 to 2035 and then decline from 2035 to 2050 (Renski 2015). This slow down and eventual decline in population is largely attributable to two factors: domestic out-migration and international migration uncertainty.

Figure 45. Long-term Population Projections for Massachusetts (2000-2050)

Source: UMass Donahue Institute 2025

Population and demographic trends are a defining influence on transportation needs, the quality of transit service, and the cultural expectations around transit. While PVTa has previously noted that ridership in the region is more correlated with the amount of service offered (as opposed to fluctuations in total population), a stagnant, declining, or shifting population could manifest in a variety of ways for PVTa in the future, including:

- A reduced labor supply could present significant challenges to future workforce recruitment efforts.
- A small ridership base may reduce demand for transit and present the need for PVTa to make service changes.
- Changing demographics may shift public expectations about the function, frequency, and quality of regional transit service.

All of these present uncertainties that could influence PVTa's operations over the next five years.

7.1.1.2 Aging Constituency

Massachusetts' population is both older and aging at a rate that exceeds the national average. As of 2025, 20.4 percent of the state was 65 years or older. This is projected to increase to 22.3 percent of the state's population by 2030. Not only does the rate of aging in Massachusetts outpace national averages, it also exceeds earlier state-level estimates (Renski 2015).

Massachusetts' increasingly older population places more pressure on demand response transportation services. PVTa's ridership base (i.e., the total population living in its service area) is projected to decrease by approximately 0.78 percent, which will create similar effects on transit service compared to statewide estimates (UMass Donahue Institute 2025). An aging population could impact PVTa through:

- Increased costs and workforce required to serve increased demand response service.
- Reduced pool of potential transit workers as more residents retire from the workforce.

7.1.2 Affordability

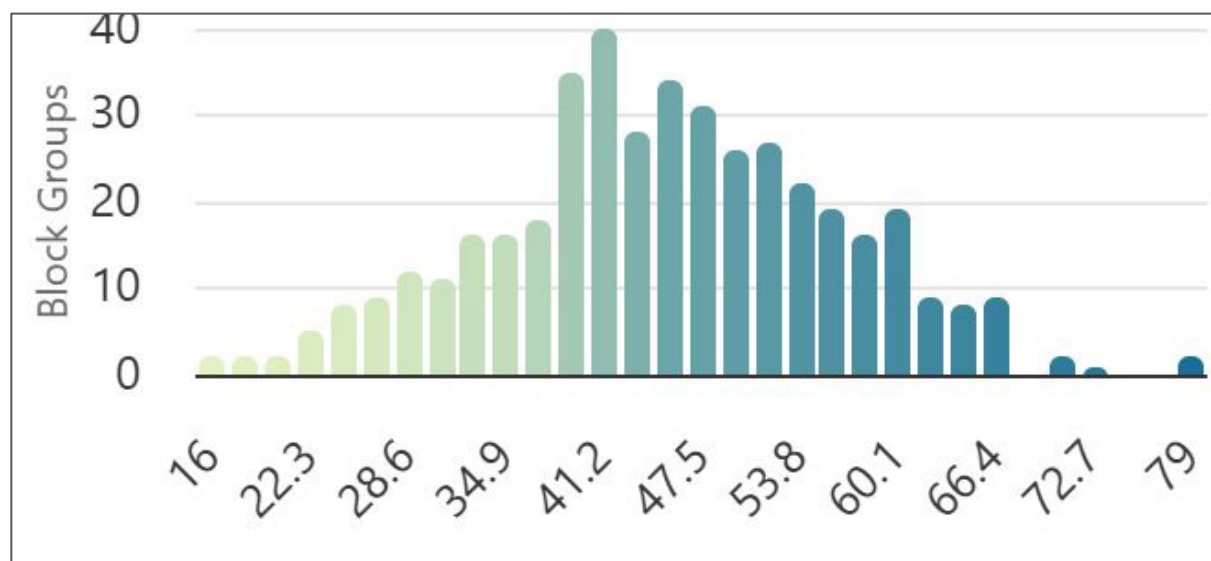
Massachusetts has some of the highest living costs in the United States. High and rapidly growing housing prices are at the center of the Commonwealth's affordability dilemma.

In tandem with housing costs, transportation expenses have also imposed an outsized burden on Massachusetts residents in recent years. According to Transportation for Massachusetts' 2024 survey, 71 percent of Massachusetts residents report housing cost burden, while 57 percent are burdened by transportation costs (Transportation for Massachusetts 2024). Among PVTa's ridership base, residents in the median block group pay an estimated 47 percent of their income on housing and transportation expenses as seen in Figure 46.

Cost is one of the single-most influential factors in determining an individual's place of residence and transportation needs. Affordability issues that could impact PVTa include:

- Potential for increased sprawl development and longer commute distances.
- Increased costs to serve longer trip length.
- Additional service demand in lower cost rural areas if people relocate from higher cost urban areas.

Figure 46. Pioneer Valley MPO Housing and Transportation Costs as a Percentage of Residents' Income



Source: Center for Neighborhood Technology, 2025

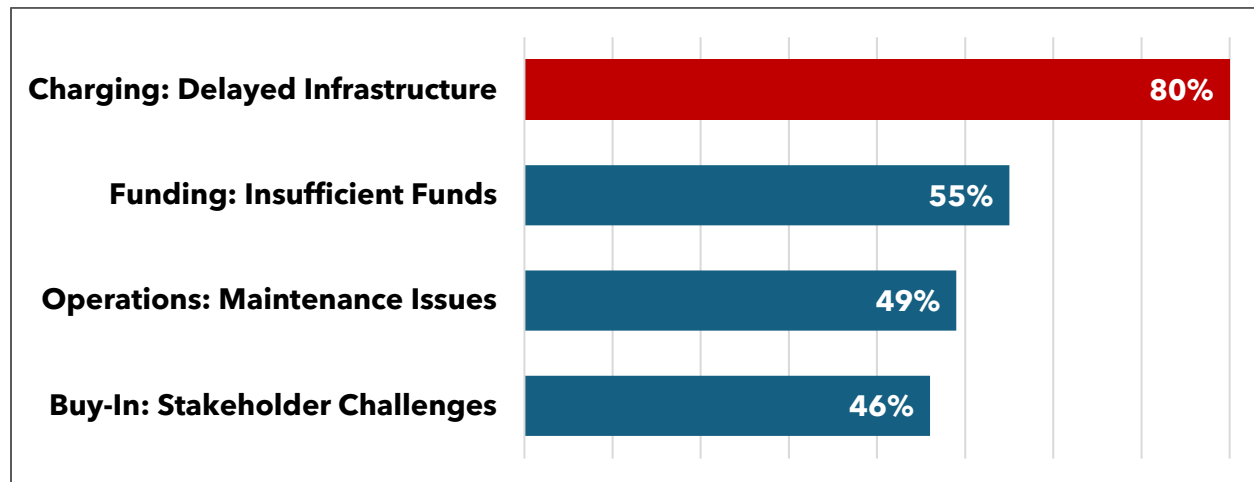
7.1.3 Technology

Transit agencies across Massachusetts and the United States have employed a diversity of approaches and levels of initiative towards fleet modernization. Fleet modernization within RTAs has also become highly contingent upon available funding streams at both the federal and state levels. At the federal level, the FTA Section 5339(c) Low or No Emission "Low-No" grant program has shifted priority from "no-emissions" procurements to funding low-emissions vehicle types (Ekbatani 2025).

Despite federal policy changes, Massachusetts has maintained fleet modernization goals. However, inadequate energy infrastructure has consistently presented a significant challenge to adoption of zero emission vehicles. As seen in Figure 47, in a 2025 survey, 80 percent of transit agencies reported infrastructure delays as the largest challenge to adopting zero

emission vehicles (Optibus 2025). Insufficient electrical capacity, complex negotiations, and long lead times with utility providers can delay charging infrastructure.

Figure 47. Inadequate Charging Infrastructure is the Leading Obstacle to Fleet Modernization



Source: Optibus 2025 State of Public Transportation Industry Survey

Uncertainties surrounding travel demand from remote work and virtual services remain. These uncertainties could lead to:

- Increased demand from a greater return to in-person work
- Long-term normalization of the remote lifestyle (both working and delivery services) that could cause the public and lawmakers to view funding for public transit to be less important

7.1.4 Funding for Transit

The stability and size of funding streams is a critical component factoring in PVTa's level of service and operational success. At the federal level, the Infrastructure Investment and Jobs Act (IIJA) has provided over \$550 billion in funding towards transportation programs across the United States and is expected to provide \$660 billion across its total five-year lifespan. Funding in the amount of \$116 billion in IIJA funds is allocated towards transit programs, which represents a 40 percent expansion in federal transit funding compared to past levels (Bureau of Transportation Statistics 2025).

However, the IIJA is scheduled to expire at the end of FY 2026. Despite the unprecedented levels of transit funding and investment the act has facilitated, an immediate funding replacement is not guaranteed. Intermediate funding extensions have occurred between each of the last five federal transportation funding laws, comprising 7.5 years of the last three decades. Given this historical record, the level of federal transit funding is uncertain over the next five years.

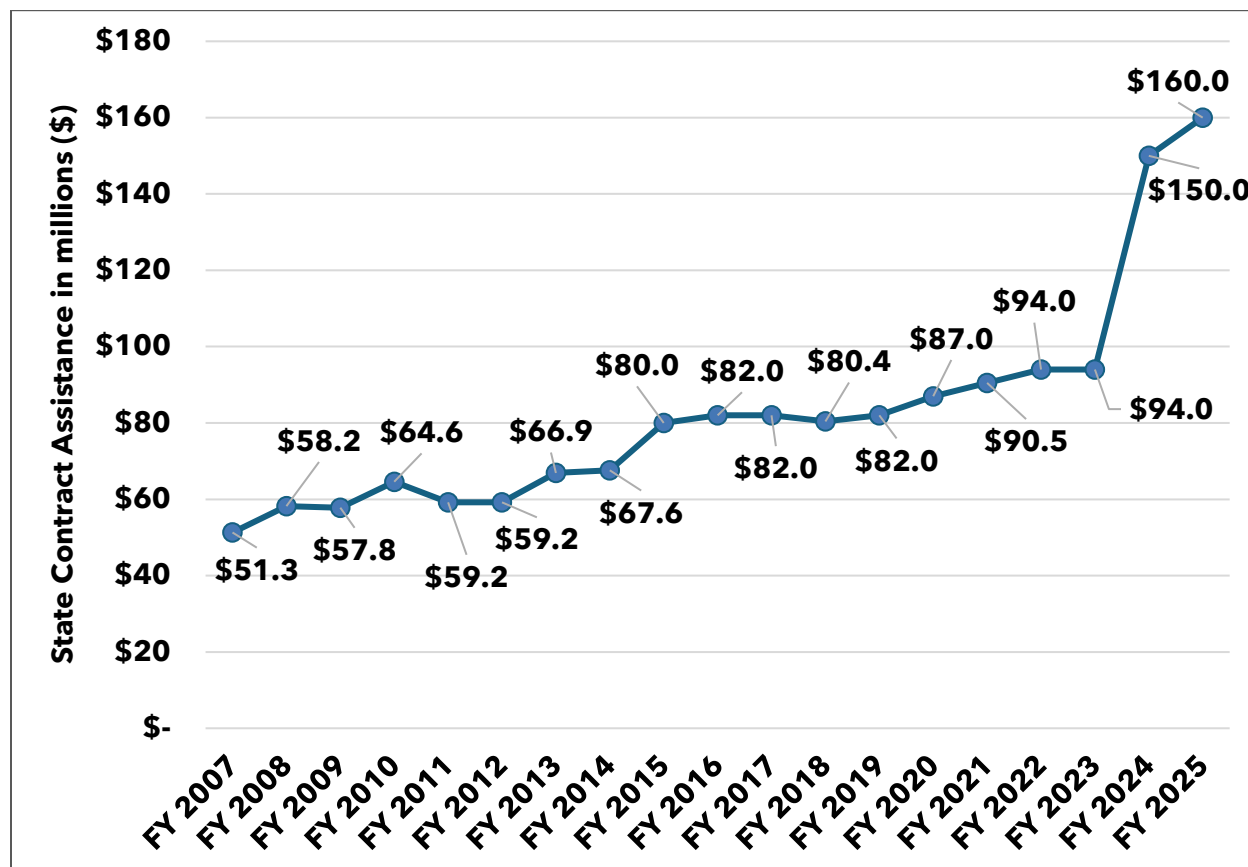
State funding for Massachusetts' RTAs has consistently grown in recent years. Since 2020, total funding provided to all RTAs through state contract assistance has nearly doubled from \$87 million to \$160 million, as shown in Figure 48 (MassDOT 2025). In addition to general operating funds, the Commonwealth of Massachusetts has implemented additional funding through initiative-based channels, such as discretionary grant programs and fare-free pilots.

Fare-free transit at PVTa is on a trajectory to become long term as a product of state funding. Thirty-five million dollars was appropriated in FY 2026 for the implementation or continuation

of fare-free transit at all RTAs. Additionally, a statutory amendment to Chapter 161B of Massachusetts General Laws now prohibits all RTAs from charging a fare for transit services but still maintains that fare-free transit be subject to annual funding appropriation. (For more information on fare-free transit and PVTA's fare policy, see Appendix A.)

Fare-free transit has demonstrated the potential to positively impact ridership at PVTA. However, the dependency on the Commonwealth's appropriation of future fare-free transit funding introduces uncertainty and could influence PVTA's operations.

Figure 48. State Funding for Massachusetts' RTAs from FY 2007 to FY 2025



Source: MassDOT 2025

7.2 2020 Alternative Scenarios

PVTA last updated its CRTP in 2020, at the peak of the pandemic, when it was facing many uncertainties that were largely outside of its control. The entire transportation industry was grappling with unknowns about the long-term impact of the pandemic on overall ridership, and whether remote work would drive increases in sprawl. Like all transit agencies, PVTA was unsure which routes and services would recover ridership first and which would see a slower recovery. Forces beyond the pandemic such as national economic policy, unemployment rates, education policy, availability of funding for capital investments, and municipal land use plans are also outside of its control.

In order to address these uncertainties, PVTA defined three qualitative ridership scenarios to map out the future of transit demand through 2025. The three scenarios were:

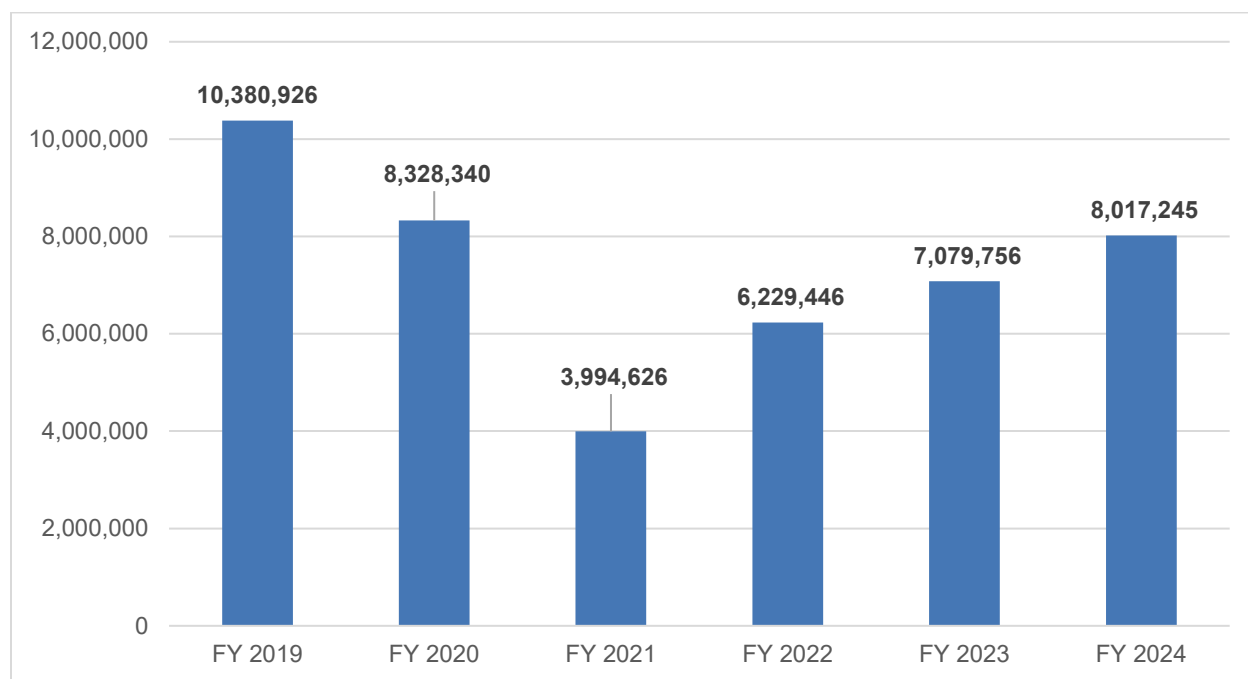
- **Low Ridership:** Ridership that remained below 60 percent of 2019 levels.
- **Medium Ridership:** Stable ridership between 60 and 85 percent of 2019 levels.

- **High Ridership:** Ridership that returned to 86 percent or more of 2019 levels.

Ridership data from FY 2019 to FY 2024 indicate that PVTa experienced the medium ridership scenario (Figure 49).

PVTa's foresight in planning for these potential scenarios ensured it was well-prepared. This enabled it to effectively use the 2020 CRTp recommendations that aligned with the medium ridership scenario for informed decision-making, including changes to service and capital assets.

Figure 49. PVTa Annual System Ridership (FY 2019- FY 2024)



Source: MassDOT, 2025

7.3 Looking Ahead: 2025 to 2030 Scenario Planning

Given that varied and numerous uncertainties will always affect the PVTa region, it is important to continue to plan for their impact on transit. While many of these trends lie beyond PVTa's control, how they unfold will likely have a significant impact on ridership. PVTa can proactively respond by planning for different ridership levels over the next five years. As part of this process, PVTa again explored three different ridership scenarios:

- Low ridership
- Medium ridership
- High ridership

Each scenario is detailed in the following sections.

7.3.1 Low Ridership

Low ridership for PVTa is characterized by ridership numbers across services between 95 and 105 percent of 2019 levels (between 9,862,000 and 10,900,000 annual passenger trips) over the next five years (2025 to 2030).

Several factors could potentially contribute to this scenario:

- A severe economic downturn and widespread unemployment could significantly reduce work-related commuting.
- Demographic shifts, such as a declining population, might lead to lower ridership demand.

Together, these dynamics could position PVRTA to experience existing levels of transit utilization. In response to these potential impacts, PVRTA considered the following questions:

- PVRTA may need to adjust routes, schedules, or staffing to better match ridership demand. How will PVRTA determine necessary changes in an equitable way?
- With flat ridership, how will PVRTA navigate implementing new service?
- How can PVRTA reach new riders and lower barriers to using transit?
- Demand response trips could be a larger proportion of PVRTA's overall service operations. How will PVRTA navigate an increase in operating expenses or shifting staff needs?

7.3.2 Medium Ridership

Medium ridership for PVRTA is characterized by ridership numbers across services ranging between 106 and 114 percent of 2019 levels (between 11,004,000 and 11,834,000 annual passenger trips) over the next five years. This scenario could result from a combination of potential factors:

- Stagnant household incomes or high inflation might make personal vehicle ownership less feasible, leading more people to rely on public transit.
- A shift toward more consistent in-office work could increase the volume of work-related commutes.
- A successful service expansion could drive higher demand.

Together, these dynamics could position PVRTA to experience considerable growth in transit utilization. In response to these potential impacts, PVRTA considered the following questions:

- Given higher ridership levels, PVRTA seeks to expand service; how will PVRTA choose where to expand and how?
- PVRTA is currently struggling with retaining a full workforce. What strategies or key partnerships can PVRTA leverage to assist with this?
- What partnerships can PVRTA leverage to tap into unmet needs and grow fixed route ridership further?
- Would PVRTA need additional vehicle capacity to serve this level of ridership?

7.3.3 High Ridership

High ridership for PVRTA is characterized by a substantial increase in ridership numbers across services, at or above 115 percent of 2019 ridership levels (11,938,000 or greater passenger trips) over the next five years. This scenario could be driven by several potential factors:

- A sharp rise in gas prices may encourage more people to choose public transit over personal vehicles.
- An aging population could lead to a significant increase in demand response ride requests.

- An expansion of service-based industries and tourism economies might create a sustained spike in ridership.

Together, these dynamics could position PVRTA to experience a lot of growth in transit utilization. In response to these potential impacts, PVRTA considered the following questions:

- With increased ridership, and therefore increased demand for service, PVRTA needs to hire more drivers, mechanics, customer service staff, etc. What partnerships with local community colleges or technical high schools might be critical to leverage?
- More service means more vehicles, how will PVRTA handle funding limitations to acquire new vehicles?
- If ever increasing demand response ride requests come in, what opportunities can PVRTA leverage with COAs and local non-emergency transportation services to accommodate increased demand?

7.4 Future Opportunities

Table 28 summarizes the opportunities and corresponding scenarios that PVRTA considered that could occur over the next five years. Depending on ridership levels over the next five years, PVRTA can determine which strategic opportunities may be applicable to pursue. For items that are applicable regardless of ridership level, "all ridership" is indicated.

Table 28. Opportunities by Ridership Scenario

Ridership Scenario	Description of Opportunity
All	Assess service coverage and service levels to major trip generators, such as major employment hubs or supermarkets.
All	Evaluate current stop spacing on existing routes and align spacing with corridor ridership (i.e., closer stops for older adults or farther stops for commuters).
All	Continuously monitor route-level and stop-level key performance indicators to deliver efficient and consistent service.
All	Advocate for state contract assistance for routes currently funded through Regional Transit Innovation Grant and Section 5311f programs to improve stability of funding for now-established routes.
All	Continue to collaborate and coordinate with neighboring RTAs to deliver regional connections across service area boundaries.
All	Consider establishing a consistent route-naming convention to help passengers understand different routes and service levels (i.e., 3-digit intercity routes begin with 3, etc.).
All	Coordinate with MassDOT to evaluate potential service implications of Compass Rail.
All	Explore microtransit implementation leveraging existing demand response scheduling software. Work with communities within the PVRTA service area to implement microtransit service to alleviate demands on the paratransit fleet and drivers, expand first mile/last mile connections, and expand overall access to service.

Ridership Scenario	Description of Opportunity
All	Operate 60-foot buses on routes with high ridership to add capacity and alleviate crowding.
All	Collaborate with service area communities to tackle operational delays caused by roadway infrastructure, such as potential TSP improvements.
All	Adjust low ridership routes if microtransit service is implemented and found to be cost effective.
Low	Use stop-level ridership data to make decisions on where to modify service if funding restraints require.
Low	Conduct public outreach to determine whether there are any major destinations not being served by the existing system that may be impacting ridership.
Low	Ensure consistent service delivery for existing high-ridership routes to serve demand.
Low	Identify grant opportunities to fund service expansion to increase ridership.
Medium and High	Identify and implement a driver sign-on and/or retention benefit to draw more prospective employees.
Medium and High	Reevaluate operating company union contract, particularly regarding overtime pay, to ensure sufficient staffing to deliver more service.
Medium and High	Initiate discussions with Northern Tier communities to identify opportunities for increasing funding to deliver more service.
Medium and High	Identify existing and anticipated service gaps to implement new service or adjust existing service.
High	Procure additional vehicles, such as low-floor vans or 60-foot buses, to deliver more service and meet rider demand.

Source: PVTa Alternative Workshop on October 17, 2025

8 Recommendations

The recommendations in this five-year plan emerged from a data-informed process that incorporated historical operational data, stakeholder feedback, industry standards, local policy, statewide objectives, and PVRTA priorities. These recommendations establish a framework for advancing strategic service adjustments, capital improvements, and policy initiatives based on data-driven analysis and make meaningful progress toward better mobility for residents across the region.

8.1 Changes Since the 2020 Comprehensive Regional Transit Plan

The 2020 CRTTP included numerous recommendations across a variety of categories, such as service and capital investments. Furthermore, the 2020 CRTTP was produced during the COVID-10 pandemic, a time when transit ridership plummeted. Since that plan was produced, there has been a significant infusion of state and federal funding supporting expanded transit service, namely from the IIJA on the federal level, and from the Fair Share Amendment from the Commonwealth.

Investments that PVRTA has made with this funding over the past five years, guided by the recommendations included in the 2020 CRTTP, helped drive ridership recovery. These included:

- Improved service frequencies on Routes R10 and P21E from 60 minutes to 30 minutes
- Reconfigured route alignments on Route X90, Route WS, and Route PS, Route 31, Route G1, Route B7, and Route B17 to expand service coverage and access.
- Added early morning and late evening service on Routes G3, G73, and R10
- Added weekend service on Route PS and Route WS as well as new Sunday service to Routes G5, B17, G19, R22, R41, R42, G73E, and NE
- Realigned RouteR29 with Route38 and added frequency on Route29 between Mount Holyoke and the Holyoke Mall increasing frequency on this portion of the route from every two hours on weekdays to every 30 minutes and weekends from 2 trips a day to 16 on Saturday and 6 trips on Sunday
- Reconfigured RouteR24 to provide two-way service on a modified route and added weekend service
- Implemented paratransit same-day service in four communities for the first time
- Piloted new microtransit service in Northampton
- Expanded Dial-A-Ride Senior Program service hours
- Implemented RouteG73E (Brennan Express) service via I-91 between Springfield, Holyoke, and Northampton
- Implemented the Amherst to Worcester Route connecting UMass Amherst to Worcester Union Station
- Added new service between Pelham - Amherst and Greenfield via Leverett
- Implemented RouteX94 (Outer Crosstown) connecting East Longmeadow, Ludlow, and Springfield

8.2 Planning for an Uncertain Future

The Commonwealth may face key uncertainties in the next five years that could significantly impact ridership levels. Chapter 7 describes these uncertainties—namely demographic, economic, and funding shifts—and provides low-, medium-, and high-ridership scenarios that could occur depending on what happens. These ridership scenarios are:

- **Lower Ridership:** If the level of ridership demand over the next five years is on the lower end of expectations, some recommendations are more relevant such as conducting public outreach to identify potential areas of high demand currently underserved.
- **Medium Ridership:** If the level of ridership demand over the next five years is in the mid-level of expectations, more robust service and capital expansions may be warranted. Some of those might include recommendations regarding new software to improve operational efficiency.
- **Higher Ridership:** If the level of ridership demand over the next five years is on the higher end of expectations, then enhanced service and capital investments may be warranted. Some of those might include exploring new types of service or new service areas.

The recommendations described in this chapter are linked to one or more of these ridership scenarios. In cases where a recommendation applies to all ridership scenarios, it is listed as a “core” recommendation. For example, continued collaboration with neighboring RTAs and closely monitoring key performance indicators (KPIs). PVTA identified only core recommendations that would apply in any ridership scenario, including a lower ridership scenario, and recommendations for higher ridership conditions.

The next section presents recommendations for PVTA to use as a roadmap for the next five years across a variety of topic areas.

8.3 Identified Needs

The needs identified through the data and analysis documented in Chapter 4 and Chapter 5 served as the foundation for the recommendations detailed in the subsequent sections. They were further augmented by staff review to confirm applicability to operational realities and ensure alignment with other planning documents (e.g., regional long-range transportation plan).

The recommendations shown later in this chapter directly respond to needs identified through the RTA data analysis, market assessment, public and stakeholder input, and needs articulated in other regional and statewide plans. Needs identified through this planning process, as well as the element of the process that identified those needs, are listed in Table 29.

Table 29. Identified Needs

Need	Identified Through...
Meet ridership demand with appropriate service levels	Existing Conditions Analysis and Market Assessment
Enhance fixed route frequencies and expand service hours	Stakeholder Engagement
Continue to monitor ridership and operations data to make informed decisions	Existing Conditions Analysis

Need	Identified Through...
Leverage new and existing technology to improve service delivery and efficiency	Alternatives Workshop
Coordinate with neighboring RTAs and other providers (such as Amtrak) to facilitate interconnectivity	Alternatives Workshop
Identify growth areas and opportunities to proactively plan service expansion or connection to other modes	Market Assessment
Expand the PVTA fleet to increase capacity	Alternatives Workshop
Document and evaluate funding streams and identify opportunities for future funding	Alternatives Workshop
Explore opportunities to support TOD in the region	Regional and Statewide Plans
Improve passenger experience and ease of use	Existing Conditions Analysis and Stakeholder Engagement
Assess service coverage and service levels in areas of lower population density to identify unmet needs.	Market Assessment and Stakeholder Engagement
Continually improve and enhance safety at PVTA	Existing Conditions Analysis

8.4 Recommendations

The identified needs above have driven the development of the recommendations found in this section. PVTA discussed these needs during multiple workshops to identify the suite of recommendations presented below, taking into consideration the potential positive impact, risks, the level of effort to implement, feasibility, uncertainties, and other relevant factors.

The recommendations are organized into categories, including service, capital, policy, data and performance, coordination, additional studies, and other (Table 30). For recommendations that fall under multiple categories, the column labeled "Also in Category..." highlights their cross-listing.

Table 30. Recommendation Categories

Category	Description
Service	Service recommendations deal with specific routing or other operational considerations of day-to-day provision of service.
Capital	Capital recommendations deal with the purchase or management of equipment, rolling stock, facilities, technology, or other assets.
Policy	Policy recommendations deal with practices and standards adopted by the transit agency to guide how the organization functions.
Data and Performance	Data and performance recommendations deal with using data to improve performance and the rider's experience.

Category	Description
Coordination	Coordination recommendations deal with communications between the transit agency and other regional and statewide partners.
Additional Studies	Additional studies recommendations deal with needs that require further examination in order to make an informed decision.
Other	Other recommendations deal with issues not addressed by the other categories.

8.4.1 Service Recommendations

Service recommendations for PVRTA focus on changes to service, either by changing span of service or days per week operated (Table 31). Additionally, PVRTA intends to use new software to improve on demand service delivery, including potential microtransit service. Facilitating regional transfers is also a priority for PVRTA.

Table 31. Service Recommendations

ID	Recommendation	Ridership Scenario	Also in Category...
1	Leverage new information technology to improve paratransit service delivery including mobility on-demand service. Continuously use data to monitor demand and performance and make adjustments to local routes to improve passenger experience.	Core	Data and Performance; Capital
2	Evaluate the potential for increasing weekday frequencies to 15 minutes on high performing (measured using passengers per hour) routes with existing headways greater than 15 minutes.	Core	N/A
3	Extend Sunday service hours to more closely match Saturday service hours on high ridership routes.	Core	N/A
4	Continue to improve frequencies on all local routes. Improve remaining routes, such as Routes 14, 19, 22, R44, and 33, to 60 minutes at a minimum.	Core	N/A
5	Explore additional or enhanced service in equity areas meeting Title VI thresholds with low existing service levels.	Core	N/A
13	Continue to coordinate with neighboring RTAs (such as FRTA, WRTA, and BRTA) to coordinate service delivery and facilitate interconnectivity between service areas. This may take the form of aligning schedules for timed transfers.	Core	Coordination

N/A = Not Applicable

8.4.2 Capital Recommendations

PVRTA's capital recommendations are related to enhancing operations and passenger experience (Table 32). These recommendations include procuring additional vehicles (large

60-foot buses as well as low-floor vehicles) to appropriately meet ridership demand. Other capital impacts may arise from bus stop balancing efforts and high-capacity transit. A bus stop balancing effort was previously undertaken in 2019, prior to fare-free service. Updating stop locations, including consolidating low usage stops, could offer operational improvements including on-time performance, by reducing the number of times buses pull in and out of traffic to pick up and drop off passengers.

Table 32. Capital Recommendations

ID	Recommendation	Ridership Scenario	Also in Category...
1	Leverage new information technology to improve paratransit service delivery including mobility on-demand service. Continuously use data to monitor demand and performance and make adjustments to local routes to improve passenger experience.	Core	Data and Performance; Service
7	Continue to make safety improvements to PVRTA facilities and promote a culture of safety for all PVRTA staff.	Core	Policy
14	Increase the fleet of 60-foot buses for use on routes with high ridership to add capacity and alleviate crowding.	Core	N/A
15	Procure additional vehicles appropriate for route-level needs to deliver more service and meet rider demand. This might include low-floor models, 60-foot buses, etc.	Core	N/A
18	As fare-free service tends to encourage passengers to make more short trips, revisit bus stop balancing effort to align spacing with corridor ridership.	Core	Additional Studies
21	Explore potential to improve travel speeds through adding express service, bus rapid transit, or other transit service in the Pioneer Valley region.	Higher	Additional Studies

N/A = Not Applicable

8.4.3 Data and Performance Recommendations

PVRTA plans to prioritize tracking and monitoring data using a performance management system to deliver high-quality and efficient service (Table 33).

Table 33. Data and Performance Recommendations

ID	Recommendation	Ridership Scenario	Also in Category...
1	Leverage new information technology to improve paratransit service delivery, including mobility on-demand service. Continuously use data to monitor demand and performance and make adjustments to local routes to improve passenger experience.	Core	Service; Capital
8	Continue to monitor route-level and stop-level KPIs to deliver efficient and consistent service. Improve on-time performance by 10 percent annually (systemwide).	Core	N/A

N/A = Not Applicable

8.4.4 Policy Recommendations

PVTA's policy recommendations include additional study and coordination regarding the RTA's funding needs and sources (Table 34). Other policy recommendations identified include promoting a culture of safety through policy.

Table 34. Policy Recommendations

ID	Recommendation	Ridership Scenario	Also in Category...
6	Coordinate with MassDOT to incorporate routes currently funded through the Regional Transit Innovation Grant and FTA Section 5311 programs (such as Route B79) for state contract assistance.	Core	Coordination
7	Continue to make safety improvements to PVTA facilities and promote a culture of safety for all PVTA staff.	Core	Capital
16	Undertake a financial analysis to document and evaluate the financial context of PVTA service including various levels of funding involved from local, state, and federal sources. This analysis should also examine opportunities for future funding.	Core	Additional Studies

8.4.5 Coordination Recommendations

PVTA's coordination recommendations include ongoing collaboration with neighboring RTAs and other providers to facilitate transfers between systems and support regional mobility (Table 35). Additionally, PVTA intends to continue coordinating with COAs to support their operations and to manage growth in demand. Other opportunities for coordination include supporting transportation oriented development efforts regionally and locally and coordinating multimodal connections to enhance mobility.

Table 35. Coordination Recommendations

ID	Recommendation	Ridership Scenario	Also in Category...
6	Coordinate with MassDOT to incorporate routes currently funded through the Regional Transit Innovation Grant and FTA Section 5311 programs (such as Route B79) for state contract assistance.	Core	Policy
9	Continue interjurisdictional collaboration and coordination to facilitate regional mobility such as connections to the Pioneer Valley Flyer, Compass Rail (Palmer and Union Stations), and Windsor Locks, Connecticut.	Core	N/A
10	Continue to coordinate with COAs within the PVTA service area to improve service and manage growth in demand.	Core	N/A

ID	Recommendation	Ridership Scenario	Also in Category...
11	Support TOD efforts within the region through coordination with local municipalities, the state Department of Housing and Community Development, and local non-profits such as Wayfinders.	Core	N/A
12	Continue to support first-/last-mile bike connections to expand access and mobility. Coordinate with Valley Bike, PVPC, and local municipalities to understand growth areas and planned projects.	Core	N/A
13	Continue to coordinate with neighboring RTAs (such as FRTA, WRTA, and BRTA) to coordinate service delivery and facilitate interconnectivity between service areas. This may take the form of aligning schedules for timed transfers.	Core	Service
24	Explore opportunities for enhanced connections between PVRTA service in Springfield and southern communities such as Worcester, Bradley, or Hartford.	Core	Additional Studies

N/A = Not Applicable

8.4.6 Recommendations for Additional Studies

Several opportunities for additional studies were identified as part of the planning process for this plan (Table 36). These include identifying opportunities for leveraging transit signal priority (TSP) technology and potential street improvements to improve transit operations. Other areas of exploration include evaluating potential transportation options for serving late-night demand for workers, identifying major destinations that may warrant new or additional service, potential high-capacity transit options, and opportunities for future funding.

Table 36. Recommendations for Additional Studies

ID	Recommendation	Ridership Scenario	Also in Category...
3	Undertake a financial analysis to document and evaluate the financial context of PVRTA service, including various levels of funding involved from local, state, and federal sources. This analysis should also examine opportunities for future funding.	Core	Policy
17	Coordinate with PVPC on its traffic signal inventory study to identify areas of improvement for TSP and next steps for implementation.	Core	Coordination
18	As fare-free service tends to encourage passengers to make more short trips, revisit bus stop balancing effort to align spacing with corridor ridership.	Core	Capital
18	Continue to assess service coverage and service levels in areas of low population density to identify unmet needs.	Core	N/A

ID	Recommendation	Ridership Scenario	Also in Category...
19	Discuss potential street improvements with local planning, Public Works staff, MassDOT, and MPO staff regarding high-traffic and high-ridership corridors to improve bus operations. Potential interventions include priority lanes at choke points and other supportive roadway improvements.	Higher	Coordination
21	Explore potential to improve travel speeds through adding express service, bus rapid transit, or other transit service in the Pioneer Valley region.	Higher	Capital
22	Continue to conduct public outreach to determine whether there are any major destinations not being served by the existing system that may be impacting ridership.	Core	N/A
23	Explore transportation options to provide evening service for "second and third shift" employees. This may include working with regional chambers and major employers to identify specific service options and marketing service to employees.	Core	Coordination
24	Explore opportunities for enhanced connections between PVTA service in Springfield and southern communities such as Worcester, Bradley, or Hartford.	Core	Coordination
25	Update PVTA's Comprehensive Service Analysis.	Core	N/A

N/A = Not Applicable

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Appendix A Fares

Fare policy is part of a broader set of RTA and Commonwealth policies that affect public access to transit, RTA revenue, transit system operations, and many other facets of transit service in Massachusetts.

This appendix explores fare policy for PVTA and fare replacement programs funded by the Commonwealth of Massachusetts. It also examines the industry's best practices for fare-free transit operations and provides an outlook for the future of fare collection.

In accordance with state law and approval of PVTA's Advisory Board, PVTA does not currently charge for fixed route or ADA paratransit service. In addition, it offers fare-free paratransit service to seniors via the Dial-A-Ride Program. Fares are only collected on Route B79 connecting UMass Amherst to Worcester's Union Station.

Fare Collection and Revenue Replacement Program

In accordance with state law, PVTA does not currently charge for fixed route or ADA paratransit service. In addition, it offers fare-free paratransit service to older adults transported under all COA services.

Fare-free Regional Transit - Statewide Background

The following subsections explain the evolution of fare collection/revenue replacement—from fare suspension during the COVID-19 pandemic, to the Commonwealth's Try Transit Program and the funding for operations provided by the Fair Share Amendment.

COVID-19 Fare Suspension

In March 2020 the Commonwealth, along with the rest of the United States, was grappling with a global pandemic. To slow the spread of COVID-19, measures were put in place to encourage social distancing and minimize contact between front line service workers and the public. Several RTAs responded by suspending fare collection as part of their COVID mitigation measures. Fare suspension durations varied across the Commonwealth and many RTAs reinstated fare collection once protective measures were in place to protect bus operators from exposure to COVID-19. PVTA suspended fares in March 2020 and reinstated fares in July 2020. At this time, PVTA implemented a mobile fare payment system, the App, MassDOT BusPlus, allowed passengers to purchase passes on-line using their smart phones.

Try Transit Program

Beginning on November 25, 2022, and through the end of 2022, PVTA received approximately \$745,000 to suspend fare collection. The fare suspension was funded by a \$2.5 million appropriation available to RTAs in the FY 2023 Massachusetts State Budget and restricted to fare-free operations. This was the first program funded with an appropriation in the state budget. The limited duration of the program makes it challenging to measure changes in ridership trends.

Fare-free funding was extended to RTAs again in the FY 2024 Massachusetts State Budget with a \$15 million appropriation restricted to fare suspension programs. The funding allowed for longer duration fare suspension but remained a pilot program since it provided funds for a partial fiscal year. PVTA received \$3.1 million and suspended fares in several steps for various periods including the winter holiday shopping season, on weekends, for youth riders utilizing the system after 3:00 PM and for the summer months of July and August.

On balance, RTA customers, staff, and stakeholders across the Commonwealth considered the FY 2024 program successful and funding was again appropriated in the FY 2025 State Budget with \$30 million. The FY 2025 appropriation provided for a full year of fare-free operations and went beyond revenue replacement and extended funding to address the increased costs associated with additional ridership. PVRTA received a grant of \$9.5 million to support fare-free operation.

Fair Share Act

In November 2022, voters approved an amendment to the Massachusetts Constitution that assesses a 4 percent surtax on incomes over \$1 million that would be restricted to education and transportation. The Commonwealth began tax collection on January 1, 2023, and used the revenue collected during the remainder of the FY 2023 budget year to create a trust fund from which funds would be distributed in future years.

The FY 2024 budget was the first year funds were appropriated, and \$1 billion was included in the budget; \$510 million was appropriated to education and \$490 million was appropriated to transportation. The RTAs were appropriated \$25 million, and \$15 million was used to support the FY 2024 Try Transit program. For FY 2025, the Fair Share Amendment was expected to generate \$1.3 billion, \$605 million of which was appropriated to transportation. The RTA share increased to \$90 million, and \$30 million was used to support the FY 2025 Try Transit program.

State Fiscal Year 2026 Fare-Free Budget and Legislation

The FY 2026 budget for the Commonwealth of Massachusetts was signed into law on July 4, 2025. In FY 2026, \$35 million was appropriated for the implementation of year-round fare-free transit service across the Commonwealth's RTAs. This funding accompanies a statutory amendment to Chapter 161B of Massachusetts General Laws, which now prohibits RTAs from charging passenger fares for all fixed route services and paratransit services, subject to appropriation of funding to replace fare revenue. MassDOT is responsible for reimbursing RTAs for lost fare revenue attributable to the fare-free service mandate. PVRTA is required to collect and report ridership data to MassDOT in a format and frequency prescribed by MassDOT.

PVRTA Fare Policy

Fare Rates

Prior to fare-free service, PVRTA charged the rates in Table 37 for fares.

Table 37. Fixed Route Fare Policy

Fare Product	Fare Price
Full-Fare	\$1.50
Full-Fare purchased at Customer Service Center	\$1.40
Half-Fare (for Seniors age 60+ or for Disabled and/or Medicare Card Holders)	\$.75
Children 6-12	\$0.90
Child (under 6 Years Old with an Adult)	FREE
31 Day Pass (Full Fare)	\$54.00
31 Day Pass (Full Fare) purchased at Big Y with Big Y card	\$52.00

Fare Product	Fare Price
31 Day Pass (Half Fare for Seniors age 60 or older, Medicare card, Mobility Impaired, Veteran with 70% disability)	\$26.00
7 Day Pass	\$15.00
Day Pass	\$3.50

Source: PVTa Fare Policy, June 2025

Table 38. ADA and Senior Van Service Fare Policy

Fare Product	Fare Price
Trip within town	\$3.00
Trip to a surrounding town	\$3.50
Trip beyond a surrounding town and within PVTa's service area	\$4.00
Paratransit van ticket beyond ¾ mile	\$5.00
20 Pack of Ride tickets (within town)	\$57.00
10 Pack of 50 cent Ride Tickets	\$4.75

Source: PVTa Fare Policy, June 2025

Fare-free Program

PVTa received the following amounts to support fare-free service in FY 2023 through FY 2025.

- FY 2023 – Try Transit holiday promotion: \$744,523
- FY 2024 – Fare-free Implementation: \$3,100,000
- FY 2025 – Fare-free Implementation: \$9,511,353

Fare Collection Infrastructure

Fare collection equipment serves two main purposes: (1) collect, count, and securely store money deposited by riders upon boarding and (2) count passenger boardings. The amendment to Massachusetts General Law Chapter 161B in the FY 2026 state budget, which mandates fare-free service, changes considerations around the maintenance and use of fare collection equipment today and in the future.

Absent of the need to collect fares, the equipment will likely be used primarily to count passenger boardings. Passenger counting is a secondary function of fare equipment, and while a historically reliable method to count boardings, technology is widely available to provide more detailed passenger boarding information. When fare equipment reaches the end of its useful life, PVTa has an opportunity to consider a different method and technology to count passenger boardings.

On-board Equipment and Ticket Vending Machines

PVTa currently uses a GFI Genfare farebox system and Siemens mobile ticketing system for fixed route services. Farebox equipment, while not being used to collect fares, is still in use for passenger boarding counts. The only PVTa service currently collecting fares is Route B79

Amherst-Worcester intercity route. Passengers may purchase fares via mobile app or by using passes. No cash is accepted.

GFI ticket vending machines (TVM) are located at Union Station, Westfield Transportation Center, and HTC, but are currently not functional. PVRTA encountered significant challenges during project roll-out and the project was halted. During fare-free service, PVRTA has not used the TVMs or Fast Break smart cards.

PVRTA partnered with MassDOT and Brockton Area Transit (BAT) to leverage a mobile payment contract MassDOT maintains with Siemens (previously Bytemark) for fare collection. The mobile payment system uses validation where passengers activate fares to display on a cell phone. Operators validate the displayed fares as passengers board. In 2020, PVRTA and BAT received grants through MassDOT to customize the mobile app for their systems.

The GFI fareboxes vary in age as in the last three years new vehicles were equipped with the newer version of the GFI system. As the farebox equipment remains in use for passenger counting purposes, PVRTA continues to maintain it. PVRTA has no long-term capital plan for farebox equipment replacement at this time.

Retail Sales

Prior to fare-free service, passengers could pay fares using cash, transfer tickets, van tickets, magnetic stripe cards, Fast Break smart cards, and online through the mobile ticketing system. PVRTA required exact change for cash fares. Fareboxes only accept US coins and bills up to \$10. Passengers could also purchase magnetic strip card bus passes as well as ADA and Senior Van Service tickets at the Customer Service Centers at Union Station and the HTC. Other major local retailers such as Big Y, Walmart, Dollar General, and CVS also sold monthly bus passes. Senior centers sold Senior Van Service tickets. PVRTA also offers passes for online purchase via PayPal on their website. Tickets and passes are then mailed to confirmed addresses.

Retail staff at Union Station and HTC are responsible for receiving and documenting passenger complaints, providing passenger directions, and assisting with trip planning. As fare-free service has been extended, PVRTA is looking to expand retail staff's roles and responsibilities to include outreach activities such as older adult outreach, informing passengers of schedule changes in Holyoke, and general outreach to community members.

Cash Control and Management

PVRTA currently does not collect cash as the only service still collecting fares is Route B79, which does not accept cash fares. Prior to suspending fares, PVRTA collected cash onboard and at PVRTA Customer Service Centers. Fareboxes were probed daily and vaults emptied. Cash collection was reconciled with probe data and calculated daily, monthly, and annually. Van drivers (for senior service) used fare envelopes to collect fares and tickets. Envelopes were given to accounting clerks and audited daily against paper manifests for accuracy.

Following the extension of fare-free service, the operating company consolidated staff whose responsibilities revolved around cash management. Cash transfers were conducted using armored transfer services provided by Garda. PVRTA still has a counting room and accounting office.

Fare-free Transit Best Practices

Agencies across the country have experimented with fare-free transit. This subsection details best practices for implementing a fare-free system.

Transit Access and Efficiency

Fare-free transit often increases access and efficiency, as discussed below.

Ridership

Fare-free transit almost always is associated with a significant increase in ridership. Fare-free transit has repeatedly shown to increase ridership by 20 percent to 60 percent for transit agencies in the United States. Agencies that went fully fare-free before the COVID-19 pandemic experienced 20 percent to 100 percent increases in ridership within the first two years of the policy change. Paratransit services have seen similar growth, with increases up to 60 percent after implementation of fare-free service. Studies suggest that 5 percent to 30 percent of new trips resulting from fare-free policy come from those who previously took other motorized modes of travel (Volinski 2012).

Operational Efficiency

Fare-free transit simplifies both the ride experience for passengers and the workload of operators. Without fare collection, dwell time per passenger during boarding and alighting is reduced without the queues at the farebox; it also enables more efficient all-door boarding. Shorter dwell time improves on-time performance and service reliability. Fare-free transit has been acknowledged to have significantly improved on-time performance at RTAs in Massachusetts (Baxandall 2025).

Free fares may encourage more frequent shorter rides by passengers who may have otherwise walked. Despite the reduced dwell time per passenger resulting from elimination of farebox queues, more stops and larger boarding and alighting volumes may negatively impact absolute dwell time. This is most acute where stops are located in close proximity to each other and can be mitigated with increased spacing that balances operational efficiency with passenger access.

Financial Health

If not collecting fares, agencies must replace lost revenue; this is balanced against the fact that it costs agencies money to collect fares in the first place.

Revenue Sources

Identifying and acquiring alternative revenue sources to replace fare revenue is a significant barrier to implementing and maintaining fare-free transit. Securing a funding source for Massachusetts RTAs is important to the maintenance of fare-free transit. Small to mid-sized agencies, like Massachusetts' RTAs, where fare revenue is a small portion of operating revenue, face less financial difficulty in implementing and maintaining fare-free transit.

Revenue Collection Costs

The loss of revenue by eliminating fare collection is a concern for RTAs. However, fare-free transit also provides an opportunity for cost savings. Fare-free transit eliminates costs associated with the administration, enforcement, and equipment maintenance of fare collection. Fare administration, collection, and enforcement has been documented as consuming over 25 percent of fare revenue at Massachusetts RTAs (Worcester Regional Research Bureau 2019).

Increased ridership resulting from fare-free transit often creates the need for increased capacity. RTAs may need to act to effectively handle the increased demand, such as expanding fleets, hiring more staff, or expanding service. Agencies should anticipate or acknowledge the

potential for higher costs associated with providing higher capacity service to accommodate increased ridership.

A bigger challenge for PVTa may be the complementary paratransit service provided for older adults and people with disabilities. Paratransit services do not scale the same as fixed route services. The personalized nature of the service means that as more riders book more trips, both vehicle and staff productivity tends to fall and capacity to provide trips becomes strained. Funding is needed to not only replace revenue lost to fare suspension but also provide resources to hire and train additional staff needed to meet the growing demand for paratransit service.

Operator and Passenger Experience

Farebox disputes are the most likely incident that results in transit operator assaults. FTA reports operator assaults per unlinked passenger increased fourfold from 2009 to 2020 (Van Eyken 2022). Fare-free transit programs improve operator safety by eliminating conflict over fare collection, and have generally received positive feedback from operators. Many prominent transit organizations are in support of fare-free transit for its positive implications towards ensuring operation safety. Fare-free transit also reduces barriers to operator recruitment by reducing the need of operators to hold technical knowledge regarding farebox technologies (Transit Workforce Center 2022).

Fare-free transit can increase the number of non-destination riders (i.e., people who use the transit system for shelter or as a pastime). Fare-free transit is an attractive option for someone without shelter to find respite from weather. Because transit is a public service, it is a challenge to provide equitable access for all members of the community while discouraging non-destination riding that may be disruptive to other passengers.

Riding policies, like having all passengers exit the bus at the end of the line, can dissuade non-destination riding. Agencies can collaborate with social service providers to extend outreach and intervention opportunities (GoTriangle 2025). Loitering rules can be better enforced at terminals and bus stops, and rules of conduct can be imposed and enforced when customers act unruly or disturb other passengers on board.

Future of Fare-free Regional Transit

Funding fare-free transit in the future comes with both risks and opportunities. These are explored in greater detail below.

Risks

Risks that go along with funding fare-free transit include the uncertainty of continued state funding and the provision of fare collection equipment should fare collection resume.

State Funding

Starting in the FY 2024 state budget, fare-free service was funded with a discretionary grant program appropriated annually and funded with Fair Share Amendment revenue. The FY 2026 state budget amended Massachusetts General Law Chapter 161B with a mandate for fare-free transit service. The transition from a discretionary program to a statutory funding requirement provides a greater degree of certainty to PVTa that the funds will be available each year; however, "subject to appropriation" in the amendment suggests that the funding could be at risk from prolonged budgetary constraints.

Federal Compliance

FTA Circular 4702.1B establishes requirements and guidelines for Title VI of the 1964 Civil Rights Act. Transit providers that operate 50 or more fixed route vehicles in peak service and are located in an urbanized area of more than 200,000 or more in population are required to evaluate fare changes to ensure there is no disparate impact on racial minority people or disproportionate burden on low income population. The requirement applies to any fare change, whether it is an increase or decrease in fare rate, and applies when a fare rate is expected to remain in place for more than six months.

Suspending or eliminating fares is a simple and straightforward analysis because both racial minorities and low income populations benefit equally as their counterparts when fares are free. However, increasing or restoring fares is more complicated because both protected groups may experience a disproportionate impact or disparate burden, depending on the specifics of the Title VI policy and analysis framework. Conducting the analysis takes time, should examine alternatives, and typically requires public hearings. PVRTA would have to consider how to maintain compliance with Title VI Fare Equity requirements should funding for fare-free service no longer be available and fares reinstated.

Fare Equipment State of Good Repair

PVRTA continues to maintain fare collection equipment that is used only to count passenger boardings. This maintenance adds costs to operating budgets with no direct benefit to the public or improved operating efficiency. Maintaining equipment that is no longer needed for fare collection and only is used to count passengers is costly and does not produce the same precision passenger counts of an APC system.

The amendment to Massachusetts General Law provides certainty that lost fare revenue will be reimbursed. The risk, however, is that if the state budget is constrained and funds are not appropriated to reimburse lost fare revenue, PVRTA will not have the capacity to collect fares once fare collection equipment has been phased out. The timeline for a fare collection system design and implementation can take years. The long lead time means it is unlikely a new system can be deployed between the time fare-free funding is suspended and revenue is needed to maintain a balanced operating budget.

Opportunities

Fare-free transit benefits social service agencies, school districts, community colleges, four-year colleges and universities, and other community-based organizations that have historically made bulk pass purchases. PVRTA has agreements with educational institutions including Springfield and Holyoke public schools as well as Five Colleges, Westfield State College, UMass Amherst, and Holyoke Community College and with the Hampden County Sheriff's office. Together, these were worth approximately \$2 million per year in FY 2022 and under \$1 million in FY 2024. Fare-free transit is cost-saving for these institutions; however, it represents a revenue loss for PVRTA, which is offset with FTA Section 161B funds.

Opportunities for revenue enhancements to replace farebox collections are limited. Higher ridership may make advertising space inside the bus, at terminals, and stops more attractive as it is visible to more people. Additional vehicles in service to meet the demands of higher ridership may present more opportunities for vehicle exterior advertising space.

PVRTA uses fare collection equipment to count passenger boardings. The equipment can register an accurate count of boardings; however, the technology is limited compared to APC systems. When the equipment reaches its useful life benchmark, capital funds that would have been used for a system replacement can be reallocated for a technology AVL system, and

computer-aided dispatch (CAD) systems. This suite of technology provides precise vehicle location and passenger counts that can be used to improve system performance; CAD systems improve communication between vehicles on the road and the dispatch office. Without the need for a fare collection system, PVRTA can spend limited capital funds in technology that improves operations.

Future of Fare-Free Policy

With the passage of the FY 2026 state budget and the changes to Chapter 161B, there is increased certainty in the state policy environment with regard to fare-free regional transit. RTAs around the Commonwealth may choose to make policy and operational decisions that assume future funding replacement for fare revenue.

However, PVRTA does not wish to foreclose possibilities for collecting fares in the future. Fares have been an important source of operating funds for the agency. Additionally, planning around the annual state budget adoption process presents uncertainty and challenges for the agency. As FY 2025 approached, PVRTA was uncertain what amount of funding would be available to cover the cost of fares, and delays in state budget adoption resulted in PVRTA collecting fares for the months of September and October. The ability to collect fares provides a measure of stability and consistency for the RTA, allowing for better long-term forecasting and planning. From a passenger perspective, switching between collecting and suspending fares can be confusing. Providing operational funding to cover fares on a longer term basis than one fiscal year at a time would allow PVRTA to provide consistency in passenger messaging and communication.

Appendix B Environmental Policy

The Commonwealth of Massachusetts has set ambitious statewide goals regarding environmental quality, as have many of its regions and municipalities. With transportation emissions contributing significantly to statewide greenhouse gas emissions and poor air quality, efforts to reduce those emissions through technology or encouraging transit ridership are described in this appendix. This appendix highlights how those environmental policies or programs may intersect with, inform, or drive PVTA actions.

Overview of Environmental Policies that May Intersect with Regional Transit Authority Activities

The following sections identify RTA activities and the associated supportive policies:

- **Commonwealth policies** are statewide policies or goals that support specific RTA activities.
- **Regional policies** are any climate action plans established by Regional Planning Agencies if those plans include transportation goals, targets, or actions.
- **Local policies** included here are any municipal climate action plans with transportation goals. Separate transportation-specific plans are not included. Comprehensive Plans are included if there is a strong and specific reference to climate change actions and no separate climate plan for the city. Natural Hazard Mitigation Plans, Net Zero Action Plans, and other plans that feature climate action are included.

RTA-specific goals and studies are another important source of information supporting specific RTA actions regarding environmental quality. Together, the statewide, regional, and local policy context should help to inform decision making and goals contained within these 5-year RTA plans.

Foundational Commonwealth Environmental Policies

There are several foundational Commonwealth policies that set the stage for greenhouse gas emissions reductions from the transportation sector. These policies may support numerous RTA activities as they relate to greenhouse gas emissions reductions, given the alignment between emissions reductions and maximizing transit ridership, serving transit-oriented places, and installing green energy infrastructure.

- **Global Warming Solutions Act:** Signed into law in August 2008, this act required the Massachusetts Executive Office of Energy and Environmental Affairs to set economy-wide greenhouse gas emissions reduction goals, including for transportation, that achieve a 10 percent to 25 percent reduction below statewide 1990 levels by 2020 and at least 80 percent reduction below statewide 1990 levels by 2050 (Commonwealth of Massachusetts 2008b).
- **Commission of the Future of Transportation in the Commonwealth:** Established by Executive Order 579 (Baker 2018), this commission developed multiple recommendations related to reducing greenhouse gas emissions and promoting energy efficiency (Governor's Press Office 2018).
- **2050 Decarbonization Roadmap:** Published in December 2020, the Roadmap is a result of a Massachusetts Executive Office of Energy and Environmental Affairs planning process to identify cost-effective and equitable strategies for Massachusetts

to reach its goal of 85 percent greenhouse gas emissions reductions by 2050 and achieving net zero emissions (Commonwealth of Massachusetts 2020).

- **Clean Energy and Climate Plan for 2050:** Released in 2022, this plan represents Commonwealth policies and strategies to reach net zero in 2050 (Commonwealth of Massachusetts 2022).
- **Green Communities Act:** Signed in 2008, this act expanded energy efficiency, supported the development of renewable energy resources, created a greener state building code, and created the green communities program (Commonwealth of Massachusetts 2008a).
- **Beyond Mobility:** The statewide long-range transportation plan, published in 2024, lays out a number of actions to be undertaken by MassDOT, several of which focus on reducing greenhouse gas emissions from the transportation sector (Commonwealth of Massachusetts 2024a).

Maximizing Transit Ridership

Efforts by the Commonwealth as well as regionally have sought to maximize transit ridership.

Commonwealth Efforts

A key method of reducing environmental impact of the transportation sector is increasing ridership on transit, particularly if it shifts people from single-occupancy vehicles into a comparatively efficient transit bus. There have been multiple efforts undertaken at the statewide level to increase RTA ridership:

- **Funding for Fare-Free Service:** After a \$15 million pilot for fare-free RTA transit in FY 2024, Massachusetts approved funding in its FY 2025 budget granting \$30 million to 13 RTAs to provide year-round, fare free service (MassDOT 2024a).
- **Coordination of Service Providers:** MassDOT provides a toolkit on coordinating service providers to maximize mobility, increase ridership, and serve riders more efficiently. The toolkit includes case studies, ways to get involved, and Coordinated Human Service Transportation Plans developed by Regional Planning Agencies (Commonwealth of Massachusetts 2025d).
- **Mobility Management:** MassMobility is a MassDOT initiative that aims to increase mobility for those who lack transportation access, including older adults, people with disabilities, veterans, and low income commuters (Commonwealth of Massachusetts 2025e).
- **Regional Transit Innovation Grant:** MassDOT has provided grants that provide funding to transit providers for innovative projects. Eligible projects enhance or expand existing service, provide innovative transit service, improve connectivity of rural areas and between regional transit service areas, or support electrification (Commonwealth of Massachusetts 2024b).
- **310 Code of Massachusetts Regulations 60.05, Global Warming Solutions Act Requirements for Transportation:** Includes requirements that support maximizing transit ridership and may be an effective tool for RTAs who are working to increase ridership in communities that they serve.

Regional Efforts

The following regional policies are supportive of maximizing transit ridership.

- PVPC/Valley Vision 4: The Regional Land Use Plan for the Pioneer Valley (PVPC 2014b):
 - Support transit ridership through promoting transit-oriented development.
 - Integrate transit in town/urban centers and identify locations for park and ride lots for express transit service.
 - Provide accommodations for transit user and identify ways to increase transit use.

Serving Transit-Oriented and Transit-Dependent Places

Both the Commonwealth and local governments have created policies geared towards serving transit-oriented and dependent places.

Commonwealth Efforts

There are several statewide initiatives to support the development of transit-oriented places and to focus transit service on those places that are most dependent on public transportation.

- **Massachusetts Chapter 40R, or The Smart Growth Zoning Overlay District Act, Chapter 249 of the Acts of 2004:** Encourages dense residential and mixed-use development through “smart growth” zoning districts. The goal is to increase housing supply by increasing the amount of land zoned for dense housing, including a high percentage of affordable housing units to be located near transit stations. Communities are eligible for Chapter 40R payments and other financial incentives upon state review and approval of a local overlay district (Commonwealth of Massachusetts 2025b).
- **Section 3A of Massachusetts General Law c.40A, also known as the MBTA Communities Law:** The goal of this law is to create zoning that encourages the development of housing in areas served by MBTA rapid transit (Commonwealth of Massachusetts 2025f). Given the overlap between RTA and MBTA rapid transit-served areas, as housing developments come to those areas targeted by the law, RTAs may consider enhancing complementary fixed route service depending on the context and need.

Regional and Local Efforts

The following regional policies are supportive of serving transit-oriented or transit-dependent places.

- *PVPC/Pioneer Valley Climate Action and Clean Energy Plan* (PVPC 2014a): Promote TOD through TOD zoning adoption.
- *PVPC/Valley Vision Plan* (PVPC 2014b): Encourage compact, high-density development near transit.
- *City of Springfield/Metro Center Neighborhood Investment Plan 2025-2035* (City of Springfield 2025): Identify opportunities for TOD at underutilized sites, including those near Union Station.

Vehicle Emission Reductions

The Commonwealth and regional government have developed policies meant to reduce vehicle emissions.

Commonwealth Efforts

The Commonwealth has provided policy and funding support for transition of public transportation vehicles to zero-emission forms of propulsion. This complements RTA efforts to incorporate low- and zero-emission vehicles into their fleet.

- **H.5060 An Act Driving Clean Energy and Offshore Wind, the Clean Energy and Climate Plan for 2050:** This act contains numerous transportation-related actions. This policy can be supportive of those efforts in that it calls for the MBTA bus fleet to be all electric by 2040; RTAs could potentially leverage that electrification effort to support procurement of their own electric vehicles. Additionally, it requires MassDOT to provide technical and funding assistance to RTAs to help electrify their fleets and to provide RTAs with assistance to create an electric bus rollout plan. MassDOT is also directed to consult with RTAs on developing and issuing recommendations for a program of incentives for authorities to develop and maintain buses and other zero emissions vehicles (Bill H.5060 2022). The directives to MassDOT could be a significant source of support for RTAs in this work.
- **Beyond Mobility:** This statewide plan contains a specific action to support electrification of public transportation vehicles, including RTA vehicles (Commonwealth of Massachusetts 2024a).

Regional Efforts

The following regional policies are supportive of electrification.

- *PVPC/Climate Action and Clean Energy Plan* (PVPC 2014a): Support expansion of electric vehicle charging infrastructure.

Supportive Local Efforts

Table 39 demonstrates where PVRTA's transportation planning efforts may coordinate with or support existing plan and policy goals for cities within the PVRTA planning area. For cities that do not have climate plans or whose climate plans do not contain transportation-related actions, the transportation planning work of PVRTA may help to fill the gap.

While transportation actions varied across communities, general themes emerged around mobility, access, affordability, greenhouse gas emissions reductions including electrification, and protecting transportation infrastructure (e.g., roads, bridges, culverts) from the effects of climate change to maintain continuity of operations and evacuation routes.

Table 39. Cities in Massachusetts with Climate Action Plan Transportation Goals

City Name	Climate Action Plan	Transportation Included (Y/N)
Springfield	Strong, Healthy, and Just	Y
Chicopee	City of Chicopee Comprehensive Plan	Y
Westfield	Master Plan	Y
Holyoke	Hazard Mitigation and Climate Adaptation Plan	Y
Northampton	Sustainability Master Plan Municipal Vulnerability Preparedness Program Resilience Action Plan	Y Y

City Name	Climate Action Plan	Transportation Included (Y/N)
West Springfield	Natural Hazards Mitigation Plan Municipal Vulnerability Preparedness Program Resiliency Workshop Findings	Y Y
East Longmeadow	East Longmeadow Resilient Master Plan	Y
Easthampton	Easthampton Climate Action Plan	Y
Palmer	Palmer Master Plan	Y

Challenges and Opportunities

PVTA experienced challenges in the initial stages of procuring and deploying electric vehicles. The agency has had to install additional fire suppressant technology to protect the fleet from potential lithium battery fires. Installation of electric charging equipment also required significant coordination with the local utility company in Springfield. Additionally, maintenance staff required additional training to gain knowledge and skills required to maintain alternative fuel vehicles.

Other challenges associated with alternative fuel-powered vehicles include challenges associated with changing technology. PVTA installed an overhead pantograph charger at Union Station in Springfield. However, the manufacturer no longer supports the hardware for the charger. It cannot be used at this time and now needs to be replaced. Similarly, electric vehicle bus manufacturers such as Proterra go out of business and no longer support hardware.

Appendix C Public Comments

Comment card feedback received during the pop-up engagement event is provided in this appendix.

Comment Cards

PVTA staff distributed comment cards at the pop-up and collected more than 50 responses. The comments below replicate what was written on the cards with minor edits to spelling, punctuation, and grammar.

- It needs to have drivers to teach them to drive on the highway. Also, PVTA should have Wi-Fi on buses.
- Extend service hours on B-12 to 8 PM weekdays.
- More buses and stops for the handicap.
- There should definitely be a demand response like there are in Greenfield (called FRTA demand response), and there should be more time on the bikes—longer than 30 minutes.
- Extend service hours for Westfield R-10 Sundays; increase services for Westfield R-10.
- Specific expanded later hours will be 10:50 PM to 11:30 PM.
- PVTA service has improved; no fare very helpful to and from work and family; more service to other areas not on route—express/direct travel to Post Office Square (library) in East Longmeadow and Belchertown; more awareness of shifts in major employers; don't like Uber prices at 5 AM or midnight.
- I want to have extended hours because a lot of time bus has stopped running.
- Increase service on weekends, on demand service; extend hours during week.
- Holyoke R-29 drivers need training in customer service.
- I would like to see more buses on streets that are not available to us like bus route P20 to Union Station to East Longmeadow; also the Sunday hours should be more like Monday to Friday 6 AM to 10-11 PM.
- Extend service hours on E. Longmeadow to 11 PM.
- Extend service across the system until 11 PM.
- Need service closer to Connecticut.
- Need bus off State Street to Berkshire to Dollar Tree in Springfield on Wilbraham Road; need Sunday service until 8 PM.
- Some of the drivers drive off—I don't know why—she was carrying baby and trying to get in and he just left.
- Evening hours to midnight.
- Extend service to midnight or 1 AM.
- Bus from Pheasant Lane Mall to Wilbraham needs more stops on Boston Road.
- My complaints are: Want to have cleaner buses; people not using sexual/vulgar loud language; more respect from bus drivers and users; seats are smelly to pee; music loud.

- Sometimes bus schedules change and service can be inconsistent (B-6 for example); some drivers are rude.
- G-19 doesn't run late enough for end of shift at Chicopee Walmart; later buses could mean more hours they can work; would like system maps available; like that you can pay with card or phone; happy with buses overall.
- Up to date app bus times; focus on colleges bus stop.
- Great that the bus is free, but it can be overcrowded and there needs to be a max occupancy.
- Cleaner buses; drivers not leave when people are running to the stop; friendlier; more stops; take care of the issues on the bus with runners.
- Stop 874, Berkshire/County—move to curb cut; B6 on-time performance schedule mismatch; new shelter on Dwight Street being skipped by drivers; drivers skipping people waiting on State Street and on Maple Street; problem passenger with scooter who uses B-6 and rams people with the scooter—has been banned for 6 months in past, but back riding now.
- Great service, wish added routes and times.
- More service to the Heritage Hall in Agawam; buses are dirty, need to be cleaned better.
- Drivers can sometimes be rude, unpleasant, bypass at stops; G-5 and G-3 should run later at night, at least 9 PM; son works at Burger King near Springfield Plaza and bus doesn't run late enough for late night shifts that end at 10 PM.
- Extend hours for B-4 later at night to 8 PM.
- More service, add some—non-specific.
- Pelham/Belchertown by Amherst South Commons (add service).
- Extended hours for Springfield north (Amherst, NOHO, Holyoke) at least until 10 PM.
- Drivers should be more courteous about kneeling the bus and getting close to the curb for riders with mobility impairments.
- Certain lines shut down too early for service workers—Munich House on #1 doesn't go past 8 PM; would even be better if there was some central route service that went later that would be closer to walk to, especially in winter.
- B-17 should have service every 30 minutes.
- Shampoo seats regularly; have bus drivers wait at stops on schedule.
- Appreciate free ride; needs improvements: with hip issue need priority seating to be available but there is no enforcement; rides B-6, B-7, B-17, G-3 (State Street); stop is needed at St. James Ave Senior Home.
- More service to Northampton – nothing specific; more service to [illegible]; later service in Holyoke, Northampton and Springfield; more frequency on R14; more service to Bay State.
- G-5 run more often; more Fairfield service; G-5 too slow; R-22—we need accessible, useable bathrooms; R-22 run more often; people are sleeping in Holyoke Transit Center (HTC); really need open bathrooms at HTC; later evening service – no earlier than 9 PM.

- Extend the free services forever!
- Accuracy issues with transit app.
- Great service, please keep it up.
- More accessible for service animals and handicapped people.
- Clean up platform; safety of station platform an issue; enforce no smoking; cleanliness inside buses is an issue.
- Out of service buses sometimes park in the way of in-service buses; nicer drivers.
- Better lost and found process (lost wallet recently and could not find it).
- Usually drive from Amherst but took bus and it is a great service.
- Service is good/great.
- Service is real good.
- Keeping the bus cleaner and more sanitized.
- So, what they need to work on is security, cleanliness and overall station presentation; too many people do drugs, fight and act like animals; the amount of people smoking by the doors for example—security does nothing.