

## **Service Delivery Policy** Fall 2022 Service Report

Prepared in Spring 2023 by The Office of Performance Management and Innovation



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## Introduction

The MBTA's <u>Service Delivery Policy</u> (SDP) sets how the MBTA evaluates service quality and allocates transit service to meet the needs of the Massachusetts Bay region. The SDP states the agency's service objectives, which articulate the MBTA's vision for a high-quality transit system. Each service objective has one or more standards, or metrics, that provide a framework for measuring how well the agency meets its vision. The purpose of this report is to share the results of the SDP evaluation with the public and strengthen the MBTA's accountability and transparency with its riders.

This report evaluates MBTA service during the Fall 2022 transit rating, which spanned from August 29, 2022 to December 18, 2022. Service impacts from events in early 2023, such as the rapid transit lines speed restrictions and track section closures, are not reflected in this report since they occurred after the Fall rating ended. The Fall rating represents typical service throughout the year—this is the time when ridership is generally consistent, schools are in session, and service is operating on its most regular schedule. An exception to the typicality of the fall rating was the Orange Line shutdown, which coincided with the first three weeks of the Fall 2022 rating. The table below shows the SDP service objectives evaluated in this report, along with their respective standards.

Service Objective	Standard					
	Span of Service					
Service Availability	Frequency of Service					
	Coverage					
Deliability	System Reliability					
	Service Operated					
Comfort	Passenger Comfort					
	Station Accessibility					
Accessibility	Elevator Uptime					
	Platform Accessibility					
	Vehicle Accessibility					

Most metrics have a minimum level of acceptable service and a medium-term target for service improvement. Each metric is used to set priorities when service planning requires trade-offs between standards. For example, if the MBTA wanted to increase Frequency on a route, the agency would want to maintain our minimum standards for other measures, such as Span and Coverage. Conversely, if the MBTA finds that we are not meeting minimum standards for a metric, the agency must determine whether to reallocate resources or increase resources on a given route to meet the standards.



The Fall 2021 performance is presented alongside the Fall 2022 performance. See the <u>Fall 2021 SDP Annual</u> <u>Report</u> for more information on the Fall 2021 rating. Equity checks are reported for each standard in addition to the overall performance for each metric. The equity checks measure performance when only considering low-income riders and riders of color. The definitions of low-income and riders protected on the basis of race or ethnicity (referred to as riders of color in this document) are aligned with those in the MBTA's <u>Service and</u> <u>Fare Change Equity Policy</u> (previously called the Disparate Impact/Disproportionate Burden Policy). The data used to determine income and protected status comes from the <u>MBTA 2022 System-Wide Passenger Survey</u>.

The following section provides an overview of ridership trends during the Fall 2022 rating. The subsequent sections present the performance results for each standard. Performance reporting varies by standard, but generally, the weekday mode-level results provide a high-level overview of performance and are followed by more detailed reporting tables. Within each performance detail table, red or green triangles indicate a decrease or increase of 1.5% or more from the previous year. Appendix A provides the SDP bus route classification for each route that provided service during the Fall 2022 rating.





## MBTA Service and Ridership in Fall 2022

Ridership is central to the Service Delivery Policy reporting process. The SDP is a rider-focused document, and each service objective is evaluated from the rider perspective for all modes, including subway (Red Line, Blue Line, Orange Line, Green Line), Bus, Commuter Rail, ferry, and the RIDE. Many of the standards are weighted by average daily ridership for each route or stop. Consequently, ridership trends are an important factor when comparing year-to-year changes of performance.

Ridership was generally higher in the Fall 2022 rating compared to the Fall 2021 rating, the previous SDP reporting period. **Figure 1** shows average weekday ridership by mode (by line for rail rapid transit) in both ratings as a percent of pre-pandemic levels. For many modes, particularly bus, ridership was higher in Fall 2022 than in Fall 2021. The increase over the Fall 2021 rating is particularly evident for peak travel periods, as seen in **Figure 2**. As of winter 2022, ridership was generally at its highest levels since March 2020 and on most services, ridership during peak times resembled pre-pandemic levels. While ridership provides the demand-side of performance assessment, factors relating to the provision of service (for example, the number of vehicles or operators that are available for a given route at a given time) constitute the supply-side.



Figure 1. Weekday Ridership - % of Same Month in 2019

#### Weekday Ridership - % of Same Month in 2019





Figure 2. Average Weekday Validations by Time of Day, Fall Rating (Post-Orange Line Shutdown)

Impacts from the COVID-19 pandemic continue to affect the MBTA's service provision. While the revenue impacts of the ridership decline were mitigated by federal funding resources, the ongoing labor shortages brought on by the pandemic continue to prevent the full resumption of pre-pandemic service levels. Turnover and slow hiring for operators and dispatchers have resulted in staffing shortages for key positions needed to run frequent, reliable transit service. Another service provision factor is the availability of the rolling stock on heavy and light rail. Delays in the delivery of new trains for some lines limited the number of trains available for service at any given time during the fall rating. The MBTA continues to adjust service to meet the changing transportation needs of the region—offering more service throughout the day (instead of focusing on peak service) while also continuing to provide robust service on essential routes where ridership has remained high during the pandemic.

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# **Span of Service**

Riders expect that services will be available throughout the day as indicated on transit schedules. This measure refers to the hours during which service is available relative to established standards that define the expected hours that any given service will operate. See Table 3 of the <u>Service Delivery Policy</u> for the expected hours of operation for each mode and day type. The MBTA strives to exceed standards when resources allow, but the standards dictate the minimum levels of service that riders can expect. **Span of Service measures the percent of riders on routes that were scheduled to meet or surpass their expected hours of operation**.

Span of Service in Fall 2022 varied slightly from the Fall 2021\* rating, generally changing by less than half a percentage point. Span of Service for Saturday rapid transit service declined by 1.9 percentage points for protected riders, while Span for weekday Commuter Bus service increased by 1.1 points for the same group.

### Span Weekday Performance by Mode



### Span Performance Detail - Weekday Service

			Ονε	erall	Low-I Rid	ncome Iers	Riders of Color		
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021	
Rapid Transit**	_	100%	93.7%	94.5%	93.8%	94.2%	94.1%	95.3%	
Bus	90%	95%	95.1%	95.5%	94.8%	95.4%	95.1%	95.0%	
Key Bus	—	—	100%	100%	100%	100%	100%	100%	
Local Bus	_	_	91.4%	92.5%	90.9%	91.8%	91.0%	90.9%	
Commuter Bus	_	_	92.1%	93.3%	92.4%	92.2%	93.4%	92.3%	
Commuter Rail	_	100%	100%	100%	100%	100%	100%	100%	
Ferry	_	100%	100%	100%	100%	100%	100%	100%	

\* The 2021 Span of Service results published here are different from the 2021 results published in the Fall 2021 SDP Report. An issue with the input data for the 2021 Span of Service results was discovered and corrected.



## Span Performance Detail - Saturday Service

			Ove	erall	Low-lı Rid	ncome Iers	Riders of Color	
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021
Rapid Transit*	_	_	91.9%	93.3%	92.1%	93.0%	▼92.3%	94.2%
Bus	_	_	97.7%	97.7%	97.7%	97.5%	97.6%	97.6%
Key Bus	_	_	100%	100%	100%	100%	100%	100%
Local Bus	_	_	95.3%	95.7%	95.3%	95.1%	94.9%	95.1%
Commuter Bus	_	_		_		_		_
Commuter Rail	_	_	100%	100%	100%	100%	100%	100%
Ferry	_	_	_			_		_

### Span Performance Detail - Sunday Service

			Overall		Low-Income Riders		Riders of Colo	
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021
Rapid Transit*	—	_	100%	100%	100%	100%	100%	100%
Bus	_	_	97.3%	97.5%	97.2%	97.2%	97.6%	97.8%
Key Bus	_	_	100%	100%	100%	100%	100%	100%
Local Bus	_	_	93.5%	94.7%	93.2%	93.9%	93.8%	94.8%
Commuter Bus	_	_	_	_	_	_	_	_
Commuter Rail	_	_	100%	100%	100%	100%	100%	100%
Ferry	_	_	_	_	_	_	_	_



## **Frequency of Service**

Riders rely on MBTA services to be available within reasonable waiting times throughout the day. This measure refers to the effective wait times of different services relative to established standards; these standards define the expected frequencies of services using either headway (minutes between trips) or frequency (trips per time period). Frequency of Service measures the percent of riders on routes that were scheduled to meet or surpass their expected frequencies throughout the day.

Frequency for several bus services decreased from 2021. Frequency for weekday Key Bus and Sunday Local Bus service decreased by roughly 6 percentage points for riders overall, and for the two populations targeted for equity checks. Weekday bus service remains below the medium-term target of 95% and the decreases in weekday Key Bus routes brought the service below the minimum 90% for Fall 2022. Frequency for weekday Commuter Bus service increased for low-income riders and riders of color compared to Fall 2021.

### Frequency Weekday Performance by Mode



#### Frequency Performance Detail - Weekday Service

			Ove	Overall		Low-Income Riders		of Color
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021
Rapid Transit*	—	100%	100%	100%	100%	100%	100%	100%
Bus	90%	95%	▼89.6%	92.4%	▼89.2%	92.6%	▼89.8%	93.3%
Key Bus	_	_	▼92.3%	97.6%	▼92.0%	98.5%	▼92.5%	98.7%
Local Bus	_	_	87.1%	88.1%	86.6%	86.9%	86.9%	87.9%
Commuter Bus	_	_	91.6%	92.1%	▲89.6%	87.4%	90.2%	89.4%
Commuter Rail	_	100%	100%	100%	100%	100%	100%	100%
Ferry	_	100%	100%	100%	100%	100%	100%	100%



### **Frequency Performance Detail - Saturday Service**

			Ove	erall	Low-lı Rid	ncome Iers	Riders	of Color
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021
Rapid Transit*	—	_	100%	100%	100%	100%	100%	100%
Bus		_	94.3%	93.9%	94.2%	94.3%	94.7%	95.0%
Key Bus		_	100%	100%	100%	100%	100%	100%
Local Bus		_	88.3%	88.6%	88.2%	88.7%	88.7%	89.6%
Commuter Bus		_		_	_	_	_	_
Commuter Rail		_	100%	100%	100%	100%	100%	100%
Ferry	_	_			_	_	_	_

### **Frequency Performance Detail - Sunday Service**

			Ove	Overall		Low-Income Riders		of Color
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021
Rapid Transit*	—	—	100%	100%	100%	100%	100%	100%
Bus	_	_	88.7%	89.8%	₹88.1%	89.9%	₹89.6%	91.4%
Key Bus	_	_	100%	100%	100%	100%	100%	100%
Local Bus	_	_	₹72.6%	78.8%	▼71.5%	77.6%	▼73.6%	79.8%
Commuter Bus	_	_	_	_	_	_	_	_
Commuter Rail	_	_		_	_	_		
Ferry	_	_	_	_	_	_	_	



## Coverage

The Coverage standard measures geographic access to transit for residents across the MBTA service area. Coverage is measured in two ways: Base Coverage, which evaluates access to any transit service; and Frequent Service Coverage, which evaluates access to frequent transit service. For Coverage, an MBTA stop or station is considered to receive frequent service if the effective wait time of scheduled service at the stop from 6:00 AM to 10:00 PM does not exceed 15 minutes on weekdays and 20 minutes on Saturdays and Sundays. Base Coverage allows the MBTA to assess basic transit access against a minimum for the region while Frequent Coverage informs the prioritization of frequent service for the residents most likely to use and rely on it.

## **Base Coverage**

Residents of the region expect the MBTA to provide a basic level of coverage throughout the service area. The Base Coverage measure assesses the geographic extent of all MBTA services, some of which may be relatively infrequent for some or all of the service day. **Base Coverage measures the percent of the population that lives within a half-mile of any MBTA service in the MBTA service area, excluding municipalities that are members of a Regional Transit Authority (RTA)**.

Access to weekday transit service remained above the minimum for riders as a whole and for the two equity groups. With the exception of a 1 percentage point reduction for riders of color, coverage for weekday transit service did not change from 2021. Access to weekend services increased by around 1.5 percentage points over 2021 for all three populations.

### **Base Coverage Performance**

			Ove	Overall		ncome eholds	Residents of Color	
Day Type	Minimum	Target	2022	2021	2022	2021	2022	2021
Weekday	75%	_	78.2%	78.3%	84.8%	85.2%	88.5%	89.1%
Saturday	_	_	▲75.2%	73.5%	▲82.5%	80.9%	86.5%	85.2%
Sunday	_	_	▲69.6%	68.1%	▲78.0%	76.4%	82.3%	81.2%



## **Frequent Coverage**

Beyond a basic level of transit service throughout the service area, there are urban areas with high population and employment densities where frequent service is expected. Frequent service is also prioritized for areas with high proportions of people more likely to use or rely on transit. Frequent Service Coverage measures the percent of the population that lives within a half-mile of frequent MBTA service in areas that either have high combined population and employment densities or have moderately high combined population and employment densities along with above-average proportions of low-income and lowvehicle households. This is also measured for the MBTA service area excluding municipalities that are members of an RTA.

Access to high-frequency weekday service in the high-density portions of the region increased from 2021 for riders as a whole but remained below the minimum of 70%. Access to high-frequency service on weekends generally decreased by about 1 percentage point. The slight reductions for weekend services likely reflects cuts to Key Bus services, which were necessitated by the ongoing operator shortage. Key Bus routes provide high-frequency bus service, so a reduction in the number of frequent bus trips could reduce the number of stops with frequent service, and consequently the percentage of the service area population that live near high-frequency service.

			Overall		Low-Income II Households		Residents of Color	
Day Type	Minimum	Target	2022	2021	2022	2021	2022	2021
Weekday	—	70%	61.6%	60.9%	61.0%	61.3%	64.6%	65.2%
Saturday	_	_	68.6%	68.8%	67.0%	68.0%	70.1%	71.0%
Sunday	_	_	59.5%	59.6%	59.3%	60.3%	63.3%	64.5%

#### **Frequent Coverage Performance**



## Accessibility

The MBTA works to ensure that people of all abilities have access to MBTA services. The accessibility standards in the Service Delivery Policy measure the accessibility of the MBTA system as it relates to the Americans with Disabilities Act (ADA).

## **Station Accessibility**

The ability for all customers to reach a subway, Commuter Rail, or Silver Line platform depends on whether stations are designed to be accessible, and the accessible features are maintained over time. Subway stations are typically accessible using elevators, while accessible Commuter Rail stations may include elevators or ramps in combination with high or mini-high platforms for level boarding. Surface stops on the Mattapan, Green, and Silver Lines have different accessibility requirements involving the geometry of the street, curb, or platform. **Station Accessibility measures the percent of MBTA stations that are ADA-accessibility** is also evaluated using ridership weighting, thereby prioritizing the accessibility of stations with high ridership. The ridership-weighted version measures the percentage of riders boarding at MBTA stations that are ADA-accessible.

Overall Station Accessibility increased by 1.7 percentage points compared to 2021, while ridership-weighted station accessibility decreased slightly from 2021. Although the rider-weighted results are lower than the previous year, a higher share of riders of color had access to accessible stations than riders whole.

## **Unweighted Station Accessibility Performance**

	Minimum	Target	2022	2021
Station Accessibility (Unweighted)	76%	100%	▲78.9%	77.4%

### **Ridership-Weighted Station Accessibility Performance**

			Overall		Low-Income Riders		Riders of Color	
	Minimum	Target	2022	2021	2022	2021	2022	2021
Station Accessibility (Ridership-weighted)	94%	100%	94.5%	94.7%	94.1%	95.2%	95.1%	95.9%



## **Elevator Uptime**

Many stations require elevators to be accessible for riders, meaning that elevator maintenance and unplanned outages can affect the abilities of people to access MBTA services. Elevator Uptime measures the percentage of total elevator-hours in which elevators are operational.

Elevator Uptime decreased by 1.4 percentage points from Fall 2021, dropping below the minimum of 99.4%. Elevator outages at the Fields Corner and Arlington stations impacted Elevator Uptime.

## **Platform Accessibility**

Riders should also be able to access the platforms in accessible stations at all times service is offered. Platform Accessibility is an alternative measure of Elevator Uptime that evaluates access to platforms, measuring the percentage of total platform-hours that are ADA-accessible via elevators.

Platform accessibility dipped below the minimum in Fall 2022 by 0.6 percentage points. Platform accessibility was impacted by the Orange Line shutdown, which overlapped with the first three weeks of the fall rating, and by elevator outages at Fields Corner and Arlington stations.

## **Vehicle Accessibility**

Even from an accessible platform, customers can encounter barriers boarding some transit vehicles. Vehicle Accessibility measures the percentage of trips that the MBTA provides with at least one ADAcompliant vehicle. This measure is currently only calculated for the Green Line, as all buses and heavy rail vehicles are accessible, and data for Commuter Rail Vehicle Accessibility is not yet available. For The RIDE, vehicles are assigned to trips based on customers' accessibility needs as expressed during the reservation process so that all trips requiring an accessible vehicle are provided one.

The accessibility of Green Line vehicles in Fall 2022 achieved the minimum and medium-term target of 100%.

### **Accessibility Performance**

			Ονε	erall	Low-lı Rid	ncome Iers	Riders	of Color
	Minimum	Target	2022	2021	2022	2021	2022	2021
Elevator Uptime	99.4%	100%	98.1%	99.5%	_	_	_	_
Platform Accessibility	99.4%	100%	98.8%	99.5%	_	_		_
Vehicle Accessibility (Green Line)	100%	100%	100%	99.5%	_		_	_



## **Reliability of Service**

Reliability standards vary by mode and provide tools to evaluate the on-time performance of MBTA services. Reliability standards also vary based on frequency of service; passengers using high-frequency services generally expect regular vehicle arrivals rather than strict adherence to published timetables, whereas passengers who use less frequent services expect arrivals/departures to occur as published. **Reliability measures the percentage of passengers on routes that pass on-time performance tests**.

Reliability generally decreased for rapid transit and bus services compared to Fall 2021, particularly for weekday and Saturday services. Weekday rapid transit reliability decreased by around 3.5 percentage points for the three populations. For weekday bus, Commuter Bus reliability decreased by 5 - 6.5 percentage points, and Local Bus reliability decreased by 2.5 - 3.5 percentage points. Reliability remained below the medium-term target of 75% for weekday service and dropped below the 70% minimum in Fall 2022. Weekday Key Bus reliability increased by around 0.5 percentage point, and weekday ferry reliability increased by about 1 percentage point for each group.

For weekend service, Commuter and Local Bus recorded lower reliability results than in 2021. Commuter Bus reliability decreased by 4 percentage points for each population group on Saturdays. Reliability of Local Bus service decreased by 2.5 - 3.0 percentage points for Saturday service and by 2.5 percentage points for Sunday service.

Decreases in reliability are a consequence of the ongoing staffing shortages for operators and dispatchers, and the delayed delivery of heavy rail rapid transit cars. Both operators and dispatchers are directly responsible for providing transit service, so reductions among their ranks have hindered the MBTA's ability to provide service that meets or exceeds the standards of on-time performance for certain modes.

The RIDE reliability of 87.7% remained below the 90% medium-term target in Fall 2022, and decreased by 0.7 percentage points from Fall 2021. Reliability has been negatively affected by increasing ridership levels that continue to recover from the pandemic-induced ridership drop of 2020. Additionally, driver hiring at The RIDE service providers has been slowed by changes in the labor market brought on by the Covid-19 pandemic.

### **Reliability Weekday Performance by Mode**





### **Reliability Performance Detail - Weekday Service**

			Ove	erall	Low-I Rid	ncome Iers	Riders	of Color
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021
Rapid Transit*	—	90%	▼86.0%	89.4%	▼86.1%	89.4%	₹86.3%	89.9%
Bus	70%	75%	▼68.8%	70.4%	▼68.7%	70.5%	69.1%	70.3%
Key Bus	_		76.7%	76.2%	76.7%	76.4%	76.8%	76.3%
Local Bus		_	▼62.9%	66.5%	▼62.7%	65.9%	▼62.8%	65.4%
Commuter Bus	_		▼57.4%	63.9%	▼58.0%	63.0%	▼57.6%	63.7%
Commuter Rail		92%	90.0%	90.6%	90.2%	90.5%	90.7%	91.0%
Ferry	_	99%	99.7%	99.0%	99.7%	98.6%	99.7%	98.6%
The RIDE		90%	87.7%	88.4%	_	_	_	_

### **Reliability Performance Detail - Saturday Service**

			Ove	erall	Low-li Rid	ncome Iers	Riders	of Color
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021
Rapid Transit*	_	_	83.7%	84.0%	83.9%	84.5%	84.1%	84.8%
Bus	_	_	▼70.2%	71.8%	▼70.3%	72.2%	▼70.6%	72.9%
Key Bus	—	_	▼75.7%	77.3%	₹75.8%	77.6%	₹75.9%	77.8%
Local Bus	_	_	▼64.5%	67.2%	▼64.6%	67.0%	▼64.6%	67.6%
Commuter Bus	_	_	_	_		_		_
Commuter Rail		_	91.0%	90.8%	90.8%	90.3%	91.8%	91.8%
Ferry	_	_		_	_	_	_	_



## **Reliability Performance Detail - Sunday Service**

		·	Ονε	erall	Low-I Rid	ncome Iers	Riders	of Color
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021
Rapid Transit*	—	_	85.7%	85.9%	85.9%	86.5%	86.2%	86.8%
Bus	_	_	72.9%	73.8%	72.9%	74.2%	73.3%	74.6%
Key Bus	_		77.0%	77.7%	76.9%	78.0%	77.1%	78.2%
Local Bus			▼67.0%	69.6%	▼67.2%	69.5%	▼67.5%	69.9%
Commuter Bus	_	_	_			_	_	_
Commuter Rail	_	_	91.6%	92.2%	91.5%	92.1%	91.9%	93.1%
Ferry	_	_	_		_	_	_	_





## **Service Operated**

Riders depend on transit services running as scheduled, but factors like equipment failure, lack of personnel, and emergencies can sometimes prevent the MBTA from operating scheduled service. Service Operated measures the percentage of scheduled trips that are actually provided for each mode of service.

Service Operated for heavy rail (the Red Line, Orange Line, and Blue Line) and light rail (the Green Line and Mattapan Trolley) service declined for each day type compared to 2021. The Red Line brought the heavy rail values down, with an average of 93% of provided trips for the three day types, compared to 97% and 99% for the Orange and Blue Lines respectively.

Service operated increased by 1.0 - 2.5 percentage points for bus service for the three populations, however, it remains below the target of 99.5%. Provided trips for Commuter Rail increased by 0.1 percentage point over 2021, while once again 100% of scheduled ferry trips were provided in the fall rating.

#### Service Operated Weekday Performance by Mode



### **Service Operated Performance Detail**

			Wee Ove	kday erall	Satı Ove	urday erall	Sun Ove	day rall
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021
Heavy Rail*	—	99.5%	▼96.0%	99.3%	▼96.0%	98.9%	▼95.9%	99.6%
Light Rail	_	99.5%	95.3%	96.4%	▼93.3%	95.3%	94.3%	95.3%
Bus	_	99.5%	96.7%	95.7%	▲96.9%	94.6%	▲97.0%	94.4%

Mode	Minimum	Target	2022	2021
Commuter Rail	—	—	99.7%	99.6%
Ferry	_	_	100%	100%



## **Passenger Comfort**

Passenger Comfort is influenced by the number of people in a vehicle and whether a seat is available to each rider for all or most of the trip. Passenger Comfort standards, which vary by mode and time of day, establish the maximum number of passengers per vehicle to provide a safe and comfortable ride. The MBTA lacks the data needed to accurately measure passenger loads on heavy rail, light rail, and commuter rail. Ferry and the RIDE paratransit vehicles are prohibited from operating with more passengers than they can carry. Consequently, bus is the only mode reported below. Passenger Comfort measures the percentage of passenger travel time experienced in comfortable conditions.

Passenger Comfort remained above the minimum and medium-term target in Fall 2022. Crowding conditions for bus riders worsened compared Fall 2021 as a higher proportion of riders traveled on crowded buses. The increase in crowding is likely the result of increasing ridership and frequency reductions. As seen in **Figure 1**, bus ridership in Fall 2022 is higher than it was in Fall 2021. As mentioned previously, the ongoing staffing shortages for bus operators and dispatchers meant that the increased demand during the fall rating could not have been adequately met by increasing the number of vehicles in service, and consequently, more passengers experienced crowded rides.

			Ove	erall	Low-lı Rid	ncome Iers	Riders	of Color
Mode	Minimum	Target	2022	2021	2022	2021	2022	2021
Bus Passenger								
Minutes in Comfortable	<b>92%</b>	<b>96</b> %	▼96.8%	98.5%	▼96.8%	98.5%	▼96.8%	98.5%
Conditions								

#### **Bus Passenger Comfort Performance**



## **Paratransit Service Standards**

The MBTA's paratransit program, The RIDE, provides door-to-door, public shared-ride transportation to eligible passengers as mandated under the Americans with Disabilities Act (ADA). The RIDE provides ADA trips (trips with origins and destinations within three-quarter miles of a fixed-route service) at one fare rate and non-ADA trips (when a trip origin and/or destination is greater than three-quarter miles from a fixed route service or for same-day changes, except for trip time negotiation) at a higher fare rate. The RIDE staff use the performance metrics stated in Appendix C of the Service Delivery Policy to monitor how well its contractors provide their contracted service.

## Productivity

Productivity measures the efficiency of the RIDE system by comparing the number of trips that The RIDE completes compared to the amount of time it takes the RIDE to provide these trips. **Productivity is** calculated as the ratio of completed trips to the number of revenue hours.

Productivity decreased by 0.06 in Fall 2022, and remained below the medium-term target of 1.15. Because productivity is highly dependent on the number of trips, lower ridership levels since the pandemic and resulted in a lower overall productivity number for the RIDE system.

## **Excessively Late Pick-Ups & Drop-Offs**

In addition to On-Time Performance, The RIDE monitors arrivals and departures that occur long before or after the scheduled pick-up or drop-off time. This measure captures the worst trip performance and the resulting customer experience. The MBTA seeks to minimize excessively late trips as much as possible and uses this measure to flag trips that need additional investigation and follow-up.

Excessively late pick-ups are broken out into two groups:

- Trips occurring etween 61 and 120 minutes late
- Trips occurring over 120 minutes late

Excessively late drop-offs are broken out into two groups:

- Trips occurring between 31 and 60 minutes late
- Trips occurring more than 60 minutes late

Each of the excessively late metrics increased in Fall 2022 compared to Fall 2021, and remained above the medium-term target of 0. The largest increase occurred for excessively late drop-offs that were between a half-hour and one hour late, which increased by 4.5 per 1,000 trips. Similar to OTP, performance on excessively late trips in 2022 was negatively affected by increasing ridership and lagging efforts to hire additional drivers.



## **Paratransit Performance**

SDP Standard	Minimum	Target	Fall 2022 Performance	Fall 2021 Performance
Productivity	_	1.15	1.01	1.07
Excessively late pick-ups, 61-120 minutes, per 1,000 trips.	_	0	5.6	4.8
Excessively late pick-ups, greater than 120 minutes, per 1,000 trips.	—	0	1.7	0.4
Excessively late drop-offs, 31 – 60 minutes, per 1,000 trips.	—	0	6.0	1.5
Excessively late drop-offs, greater than 60 minutes, per 1,000 trips.	_	0	2.1	0.3





## Conclusion

Delivering safe, reliable and accessible public transit to riders is the MBTA's top priority, and the SDP metrics offer a high-level overview of how service was scheduled and delivered during Fall 2022. Differences in performance from Fall 2021 to Fall 2022 were primarily due to changes in service and service conditions, ridership, and operator availability.

Ridership has continued to rise closer to pre-pandemic levels since the Fall 2021. The labor issues precipitated by the pandemic – high turnover among bus operators and dispatchers paired with sluggish hiring to replace lost personnel – have persisted during that same period. Consequently, metrics that are particularly vulnerable to the balance of travel demand and transit supply, e.g., reliability, frequency, and service operated, demonstrated worse performance compared to the fall of 2021. The decreases disproportionately impacted the most used services, i.e., Key and Local Bus and Rapid Transit.

The MBTA is investing in initiatives to improve bus service in several ways through the Bus Network Redesign, modernizing bus facilities, implementing transit priority, and exploring human resources improvements to attract, hire, and retain operators for all the services offered by the agency. The MBTA uses these metrics and many more on a daily, weekly, and monthly basis to make continuous upgrades to enhance performance while also planning for larger improvements. These metrics help the MBTA ensure service is meeting the standards set out in the SDP and help in conversations about how to best allocate resources to improve rider service in the future.





# **Appendix A: Route Types**

## **Local Bus Routes**

Route	Route Name
7	City Point - Otis and Summer Streets
8	Harbor Point/U Mass - Kenmore Station
9	City Point - Copley Square via Broadway Station
10	City Point - Copley Square Via BU Med Center
11	City Point - Downtown
14	Roslindale Square - Heath Street Loop
16	Forest Hills Station - U Mass. Or Andrew Station
17	Fields Corner Station - Andrew Station
19	Fields Corner Station - Ruggles or Kenmore Station
21	Ashmont Station - Forest Hills Station
24	Wakefield Ave Mattapan Station or Ashmont
26	Ashmont Station - Norfolk and Morton Belt Line
29	Mattapan Station - Jackson Square or Ruggles
30	Mattapan Station - Forest Hills Station
31	Mattapan Station - Forest Hills Station
33	River and Milton Streets - Mattapan Station
34/34E	Walpole Center or Dedham Line - Forest Hills Station
35	Dedham Mall - Forest Hills Station
36	VA Hospital - Forest Hills Station Via Chas. River Loop
37	Baker and Vermont Streets - Forest Hills Station
38	Wren Street - Forest Hills Station
40	Georgetowne - Forest Hills Station
41	Centre and Eliot Streets - JFK U Mass Station



Route	Route Name
42	Forest Hills Station - Nubian or Ruggles Station
43	Ruggles Station - Park and Tremont Streets
44	Jackson Square Station - Ruggles Station
45	Franklin Park - Ruggles Station
47	Central Square Cambridge Broadway Station
50	Cleary Square - Forest Hills Station Via Metropolitan
51	Reservoir - Forest Hills Station
52	Dedham Mall - Watertown Yard
59	Needham Junction - Watertown Square
60	Chestnut Hill Station - Kenmore Station
61	North Waltham - Waltham Center
62	Bedford V.A. Hospital - Alewife Station
64	Oak Square - University Pk. Cambridge
65	Brighton Center - Kenmore Station
68	Harvard Square - Kendall MIT Station
69	Harvard Square - Lechmere Station
70	Market Place Drive or Waltham Center - University Park
74	Belmont Center - Harvard Station via Concord Ave
75	Belmont Center - Harvard Station via Fresh Pond Pkwy
76	Hanscom Air Force Base - Alewife Station
78	Arlmont Village - Harvard Station
80	Arlington Center - Lechmere Station
83	Rindge Avenue - Central Square, Cambridge
86	Sullivan Station - Reservoir Station
87	Arlington Center or Clarendon Hill - Lechmere Station via Somerville Avenue
88	Clarendon Hill - Lechmere Station via Highland Avenue
89	Clarendon Hill or Davis Square - Sullivan Station via Broadway
90	Davis Square Station - Wellington Station
91	Sullivan Station - Central Square, Cambridge



Route	Route Name
92	Assembly Square Mall - Downtown Via Main Street
93	Sullivan Station - Downtown Via Bunker Hill
94	Medford Square - Davis Square Station
95	West Medford - Sullivan Station
96	Medford Square - Harvard Station
97	Malden Station - Wellington Station
99	Boston Reg. Med Center Stoneham - Wellington Station
100	Elm Street - Wellington Station
101	Malden Station - Sullivan Station Via Medford Square
104	Malden Station - Sullivan Station Via Ferry Street
106	Franklin Square or Lebanon Street Loop - Wellington Station
108	Linden Square - Wellington Station
109	Linden Square - Sullivan Station
110	Wonderland Station - Wellington Station
112	Wellington Station - Wood Island Station
119	Northgate Shopping Center - Beachmont Station
120	Orient Heights Station - Maverick Station
132	Redstone Shopping Center - Malden Station
134	North Woburn - Wellington Station
137	Reading Depot - Malden Center Station via North Avenue
201/202	Fields Corner Station - Fields Corner Station
210	Quincy Center Station - No. Quincy Station or Fields Corner Station
211	Quincy Center Station - Squantum
214	Quincy Center Station - Germantown
215	Quincy Center Station - Ashmont Station
216	Quincy Center Station - Houghs Neck
220	Quincy Center Station - Hingham
222	Quincy Center Station - East Weymouth
225	Quincy Center Station - Weymouth Landing or Columbian Square



Route	Route Name
226	Columbian Square - Braintree
230	Quincy Center Station - Montello Station
236	Quincy Center Station - South Shore Plaza
238	Quincy Center Station - Holbrook/Randolph Comm. Rail St
240	Avon Line - Ashmont Station
245	Quincy Center Station - Mattapan Station
350	North Burlington - Alewife Station
411	Malden Station - Revere/Jack Satter House
426	Central Square Lynn - Haymarket or Wonderland Station Via Cliftondale Square (Partially Express)
429	Northgate Shopping Center - Central Square Lynn
430	Malden Center Station - Saugus Center via Square One Mall
435	Liberty Tree Mall - Central Square Lynn
436	Liberty Tree Mall - Central Square Lynn
441/442	Marblehead - Haymarket or Wonderland Station via Paradise Rd. or Humphry St.
450	Salem Depot - Haymarket or Wonderland Station via Western Ave (Partially Express)
455	Salem Depot - Wonderland Station
553	Roberts - Downtown Boston (Partially Express)
554	Waverley Square - Downtown Boston (Partially Express)
712/713	Point Shirley, Winthrop - Orient Heights
CT2 (747)	Sullivan Station - Ruggles Station via Union Square Kendall/MIT and Longwood Medical Area
CT3 (708)	Beth Israel Deaconess or B.U. Medical Campus - Andrew Station

## **Key Bus Routes**

Route	Route Name
1	Harvard Square - Nubian Station via Mass. Ave.
15	Kane Square or Fields Corner - Ruggles Station
22	Ashmont Station - Ruggles Station Via Talbot Ave
23	Ashmont Station - Ruggles Station via Washington Street
28	Mattapan Station - Ruggles Station
32	Wolcott Square or Cleary Square - Forest Hills Station
39	Forest Hills Station - Back Bay Station
57	Watertown Yard - Kenmore Station
66	Harvard Square - Nubian Station via Brookline
71	Watertown Square - Harvard Station
73	Waverley Square - Harvard Station
77	Arlington Heights - Harvard Station
111	Woodlawn or Byway and Park - Haymarket Station
114/116/117	Wonderland Station/Bellingham Square - Maverick Station
SL1 (741)	Logan Airport - South Station
SL2 (742)	Boston Design Center - South Station
SL3 (743)	Chelsea - Silver Line Way
SL4 (751)	Nubian Station - South Station
SL5 (749)	Nubian Station - Downtown



## **Commuter Bus Routes**

Route	Route Name
4	North Station - Tide Street
67	Turkey Hill - Alewife Station
85	Spring Hill - Kendall MIT Station
121	Wood Island Station - Maverick Station
131	Melrose Highlands - Malden Station
351	EMD Serono/Bedford Woods - Alewife Station (Express)
354	North Burlington - State Street (Express)
424	Eastern and Essex - Haymarket or Wonderland (Express)
428	Oaklandvale - Haymarket Station via Granada Highlands
451	North Beverly - Salem Depot
501	Brighton Center - Downtown Boston (Express)
504	Watertown Yard - Downtown Boston (Express)
505	Waltham Center - Downtown Boston (Express)
556	Waltham Highlands - Downtown Boston (Express)
558	Auburndale - Downtown Boston (Express)

## **Community Bus Routes**

Route	Route Name
18	Ashmont Station - Andrew Station
55	Queensberry Street - Park and Tremont Streets
456	Salem Depot - Central Square Lynn
714	Pemberton Pt., Hull - Station St., Hingham
716	Cobbs Corner - Mattapan Station via Canton Center



## **Supplemental Bus Routes**

Route	Route Name
171	Nubian Station - Logan Airport via Andrew Station
217	Quincy Center Station - Ashmont Station
439	Bass Point Nahant - Central Square Lynn