

OFFICE OF THE STATE AUDITOR

DIANA DIZOGLIO

Official Audit Report – Issued July 24, 2024

Brockton Area Transit Authority

For the period January 1, 2021 through December 31, 2022



OFFICE OF THE STATE AUDITOR
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July 24, 2024

Michael Lambert, Administrator
Brockton Area Transit Authority
155 Court Street
Brockton, MA 02302

Dear Mr. Lambert:

I am pleased to provide to you the results of the enclosed performance audit of the Brockton Area Transit Authority. As is typically the case, this report details the audit objectives, scope, methodology, findings, and recommendations for the audit period, January 1, 2021 through December 31, 2022. As you know, my audit team discussed the contents of this report with agency managers. This report reflects those comments.

I appreciate you and all your efforts at the Brockton Area Transit Authority. The cooperation and assistance provided to my staff during the audit went a long way toward a smooth process. Thank you for encouraging and making available your team. I am available to discuss this audit if you or your team have any questions.

Best regards,



Diana DiZoglio
Auditor of the Commonwealth

cc: Monica Tibbits-Nutt, Secretary and Chief Executive Officer of the Massachusetts Department of Transportation
Robert Sullivan, Mayor of Brockton and Advisory Board Chair of the Brockton Area Transit Authority

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LIST OF ABBREVIATIONS

ADA	Americans with Disabilities Act
BAT	Brockton Area Transit Authority
CFR	Code of Federal Regulations
MassDOT	Massachusetts Department of Transportation
RTA	regional transit authority

EXECUTIVE SUMMARY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of the Brockton Area Transit Authority (BAT) for the period January 1, 2021 through December 31, 2022.

In this performance audit, we determined whether BAT delivered paratransit services required by the Americans with Disabilities Act (ADA) on time in accordance with Section 37.23(a) of Title 49 of the Code of Federal Regulations (CFR); Sections 5.3, 5.4, and 5.6 of Chapter 8 of the Federal Transit Administration's Circular 4710.1; and BAT's "ADA Paratransit Services Guide." We also determined whether BAT ensured that all ADA paratransit complaints are investigated and responded to as required by 49 CFR 27.13(b) and BAT's "ADA Paratransit Services Guide."

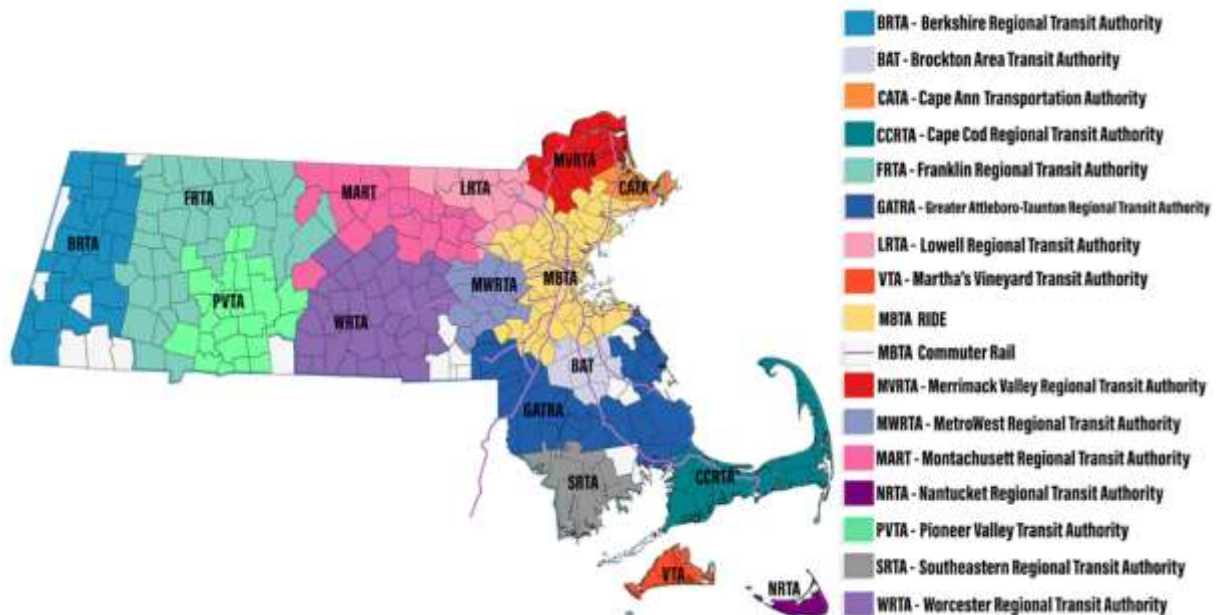
Our audit revealed no significant issues that must be reported under generally accepted government auditing standards.

OVERVIEW OF AUDITED ENTITY

Massachusetts Regional Transit Authorities

Chapter 161B of the Massachusetts General Laws established regional transit authorities (RTAs), which provide public transportation services for communities outside the reach of the Massachusetts Bay Transportation Authority. This law defines the roles and responsibilities for these authorities and the municipalities in which they operate. Each RTA has an advisory board composed of elected officials from the communities in which they operate (e.g., selectperson or mayor), as well as one representative of the disabled commuter population¹ and one representative of the local rider community. The advisory boards appoint administrators, establish bylaws, and approve budgets and changes to RTA services.

Section 53 of Chapter 6C of the General Laws makes the Rail and Transit Division of the Massachusetts Department of Transportation (MassDOT) “responsible for overseeing, coordinating and planning all transit and rail matters throughout the commonwealth,” including intercity buses, the Massachusetts Bay Transportation Authority, and RTAs.



Source: MassDOT—Rail and Transit Division (<https://www.mass.gov/info-details/public-transportation-in-massachusetts>)

1. According to Section 5 of Chapter 161B of the General Laws, “This representative shall be mobility impaired, have a family member who is mobility impaired, be a caretaker of a person who is mobility impaired or work for an organization that serves the needs of the physically disabled.”

Currently, there is a network of 15 RTAs operating in the Commonwealth, in addition to the transit services provided by the Massachusetts Bay Transportation Authority. These RTAs serve a total of 272 cities and towns outside the greater Boston area. RTAs are funded through a combination of state appropriations, federal grants, assessments paid by local governments, transit fares, and other sources. State appropriations for the 15 RTAs increased from approximately \$80 million in fiscal year 2018 to approximately \$94 million in fiscal years 2021 and 2022.

Americans with Disabilities Act—Required Paratransit Service

The Americans with Disabilities Act (ADA) of 1990 recognized that some individuals' disabilities prevent them from using a fixed-route² transit system. Section 37(F) of Title 49 of the Code of Federal Regulations, (CFR) which covers the transportation and related stipulations of ADA, states,

Each public entity operating a fixed route system shall provide paratransit or other special service to individuals with disabilities that is comparable to the level of service provided to individuals without disabilities who use the fixed route system.

The above regulation also establishes minimum levels of service that RTAs must provide for ADA-required paratransit services.

Brockton Area Transit Authority

The Brockton Area Transit Authority (BAT) was established in 1974 and reports to MassDOT's Rail and Transit Division under Chapter 25 of the Acts of 2009. According to BAT's website, its mission is as follows:

To proudly serve and be recognized as an innovative regional transit authority by providing safe, reliable and efficient service to our customers, clients and communities while "achieving maximum effectiveness in complementing other forms of transportation in order to promote the general, economic, and social well-being of the area and the Commonwealth" ([Chapter 161B of the General Laws]).

BAT's administrator, hired by the advisory board, is responsible for day-to-day administration of the agency.

BAT provides transportation services to the following 11 cities and towns: Abington, Avon, Bridgewater, Brockton, East Bridgewater, Easton, Hanson, Rockland, Stoughton, West Bridgewater, and Whitman. BAT

2. Fixed-route transportation services have established routes, schedules, and stops.

operates local fixed-route and demand-response transportation services³ within the 86-square-mile South Shore and Greater Brockton area, serving a population of over 255,800.

During the audit period, BAT contracted with First Transit, Inc., a privately operated company, to provide transit management and operations services for its fixed-route bus and demand-response transportation services provided to paratransit riders and adults over the age of 60.

BAT managed all ADA-required paratransit and demand-response transportation services provided during the audit period using a transit scheduling and dispatching system.

Performance Standards for ADA-Required Paratransit Services

BAT has a memorandum of understanding with MassDOT that includes on-time performance standards. These performance standards include a required minimum on-time pickup rate for trips. According to this memorandum of understanding, BAT was required pick up at least 88.75%, 90%, and 88% of riders within the scheduled pickup window for fiscal years 2021, 2022, and 2023, respectively.

In addition to the performance standards set by this memorandum of understanding, BAT has set internal performance standards for itself and its contracted paratransit provider. According to BAT management, BAT must pick up at least 85% of riders within the scheduled pickup window, have an untimely drop-off rate of no more than 15% of all scheduled drop-offs, and have a missed trip rate of no more than 2%.

Sections 5.3, 5.4, and 5.6 of Chapter 8 the Federal Transit Administration's Circular 4710.1 include information regarding how RTAs are required to calculate and report performance standards such as on-time performance, untimely drop-offs, and missed trips.

On-time Performance

BAT's ADA-required paratransit services use a 30-minute pickup window (15 minutes before and 15 minutes after the scheduled pickup time) for its on-time performance standard. For example, if a rider has a scheduled pickup time of 7:45 a.m., the driver is considered on time if the driver arrives between 7:30 a.m. and 8:00 a.m. Riders are to be ready and waiting at the beginning of the pickup

3. Demand-response transportation services do not have fixed routes, schedules, or stops. They must be requested by riders and scheduled by dispatchers through a transportation service.

window. If the rider cannot be located or chooses not to board the bus within five minutes of the driver's arrival, the driver will leave and continue to the next pickup.

Untimely Drop Offs

The cancellation policy for BAT's ADA-required paratransit services, which can be found in its "ADA Paratransit Service Guide," states that "a completed trip will be defined as late if the vehicle arrives at the pick-up location after the end of the pick-up window, . . . and/or arrives at the drop-off location later than the requested drop-off time."

Missed Trips

According to BAT's "ADA Paratransit Services Guide," for BAT's ADA-required paratransit services, a trip is considered missed if a driver arrives over 15 minutes after the scheduled pickup time "and the passenger opts not to take the trip or if a vehicle/driver does not show up at the customer's pickup destination."

ADA Paratransit Complaints

ADA paratransit complaints are complaints related to ADA-required paratransit services. According to 49 CFR 27.13, transportation programs that receive federal funding must adopt complaint procedures and designate a responsible employee to coordinate these procedures.

Anyone with concerns about ADA-required paratransit services can make an ADA paratransit complaint by telephone, email, or mail or in person at BAT's main office. BAT staff members record all information related to ADA paratransit complaints in BAT's complaint management system using the system's complaint form screen. Each ADA paratransit complaint is assigned a unique case identification number and is reviewed by BAT's contracted paratransit provider. BAT's contracted paratransit provider investigates and enters its findings for each ADA paratransit complaint into the complaint management system. These entries are then forwarded to BAT's manager of transit operations, who reviews, updates the status of, and ultimately provides the resolution for each ADA paratransit complaint. BAT resolves complaints with the complainant within 72 hours of receipt.

ADA Paratransit Ridership Information

The table below summarizes BAT's paratransit information for fiscal years 2021, 2022, and 2023.

	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023
Number of Active Riders	825	921	963
Number of Trips	61,791	101,025	111,099
Number of Miles	398,198	507,088	536,186
Number of Drivers	28	24	23
Number of Vehicles Used	23	28	29

BAT Funding Sources

In fiscal years 2021, 2022, and 2023, BAT received revenue from a variety of sources, including federal, state, and local assistance. The table below shows the types of funding BAT received during the audit period.

Type of Funding	Fiscal Year* 2021	Fiscal Year 2022	Fiscal Year 2023
State and Contract Assistance	\$ 7,719,030	\$ 8,217,607	\$ 8,242,295
Local Assistance	3,203,663	3,283,754	3,389,181
Federal Assistance	2,793,798	2,083,775	3,144,905
Fixed-Route Income	1,066,602	1,492,879	1,671,289
Paratransit Income	110,891	125,447	117,069
Other Revenue**	87,828	288,682	232,897
Total	<u>\$ 14,981,812</u>	<u>\$ 15,492,144</u>	<u>\$ 16,797,636</u>

* BAT's fiscal year starts on July 1 and ends on June 30.

** "Other Revenue" comprises income from sources such as advertising, parking, and interest.

BAT's management stated that the RTA is a reporting component of the MassDOT and it submits its financial statements to MassDOT.

AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of certain activities of the Brockton Area Transit Authority (BAT) for the period January 1, 2021 through December 31, 2022.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Below is a list of our audit objectives, indicating each question we intended our audit to answer and the conclusion we reached regarding each objective.

Objective	Conclusion
1. Does BAT deliver paratransit services required by the Americans with Disabilities Act (ADA) on time in accordance with Section 37.23(a) of Title 49 of the Code of Federal Regulations (CFR); Sections 5.3, 5.4, and 5.6 of Chapter 8 of the Federal Transit Administration's Circular 4710.1; and BAT's "ADA Paratransit Services Guide"?	Yes
2. Does BAT ensure that all ADA paratransit complaints are investigated and responded to as required by 49 CFR 27.13(b) and BAT's "ADA Paratransit Services Guide"?	Yes

To accomplish our audit objectives, we gained an understanding of the aspects of BAT's internal control environment relevant to our objectives by reviewing applicable agency policies and procedures and by interviewing BAT's employees and management. We evaluated the design of controls over ADA-required paratransit services and ADA paratransit complaints.

To obtain sufficient, appropriate evidence to address our audit objectives, we performed the procedures described below.

Performance Standards for ADA-Required Paratransit Services

To determine whether BAT delivered ADA-required paratransit services required on time in accordance with 49 CFR 37.23(a); Sections 5.3, 5.4, and 5.6 of Chapter 8 of the Federal Transit Administration's Circular 4710.1; and BAT's "ADA Paratransit Services Guide," we took the actions described below.

We obtained a dataset of all trips that occurred during the audit period from BAT. From this dataset, we extracted the following:

- all 39,228 ADA-required paratransit trips that were both on time and untimely (which we compiled into a new list); and
- all 8 ADA-required paratransit trips that were considered missed trips.

To determine whether BAT met the 85% performance standard it established with its contracted paratransit provider and the Federal Transit Administration's Circular 4710.1, we analyzed 100% of the 39,228 ADA-required paratransit trips using Microsoft Excel. To determine whether BAT met its 85% internal performance standard, we analyzed 100% of the 8 ADA-required paratransit trips that were considered missed trips. We compared the information corresponding to the 39,228 ADA-required paratransit trips and the 8 missed trips to BAT's performance standards regarding on-time performance, untimely drop-offs, and missed trips, the process of which we detail below.

On-Time Performance

To determine whether BAT complied with its performance standard of picking up at least 85% of riders within 15 minutes after the scheduled pickup time, we took the following actions. We calculated the number of minutes between the ADA-required paratransit rider's actual pickup time and scheduled pickup time for each of the 39,228 trips that occurred during the audit period. We calculated the percentage of pickups that were on time from every trip that occurred during the audit period and compared this percentage (88%) to BAT's performance standard to determine whether BAT met its on-time performance standard. To determine whether BAT met its performance standard during the audit period, we compared the percentage of pickups that were on time (88%) to the performance standard in BAT's memorandum of understanding with the Massachusetts Department of Transportation. We identified 4,465 late pickups that were outside of the on-time pickup window and sorted these trips by the number of minutes that the driver was late. We then targeted the 109 trips that had excessively late pickups (which we defined as being 71 minutes or more past the scheduled pickup time). For the remaining 4,356 late pickups, we organized them into the following intervals of minutes past the scheduled pickup times: 1–15 minutes, 16–30 minutes, 31–45 minutes, 46–60 minutes, and 61–70 minutes. Then, from each interval, we selected a number of late pickups that was proportional to each interval's percentage in relation to the total number of late pickups. These

selections became our random, statistical⁴ sample of 47 trips, which we formed using a 90% confidence level,⁵ a 0% expected error rate,⁶ and a 10% tolerable error rate.⁷ For both of the samples (the targeted 109 trips with excessively late pickups and the randomly selected 47 trips with late pickups), we examined the manager of transit operations's monthly reconciliation notes corresponding to late pickups, and we identified the cause of each late pickup from these notes.

Untimely Drop-offs

To determine whether BAT complied with its performance standard of having an untimely drop-off rate of no more than 15% of all scheduled drop-offs, we took the following actions:

- We calculated the number of minutes between the ADA-required paratransit rider's actual drop-off time and the scheduled drop-off time for each of the 39,228 trips that occurred during the audit period.
- We calculated the percentage of drop-offs that were untimely and compared this percentage (10.84%) to BAT's performance standard to determine whether BAT met its standard for untimely drop-offs.
- We then targeted 10 untimely drop-offs that were excessively late (which we defined as being 71 minutes or more past the scheduled drop-off time) from the total population of 1,228 untimely drop-offs that occurred during the audit period.
- For the remaining 1,218 untimely drop-offs, we organized them into the following intervals of minutes past the scheduled drop-off times: 1–15 minutes, 16–30 minutes, 31–45 minutes, 46–60 minutes, and 61–70 minutes.
- From each of the above intervals, we selected a number of untimely drop-offs that was proportional to each interval's percentage in relation to the total number of untimely drop-offs. These selections became our random, statistical sample of 47 trips, which we formed using a 90% confidence level, a 0% expected error rate, and a 10% tolerable error rate.

4. Auditors use statistical sampling to select items for audit testing when a population is large (usually over 1,000) and contains similar items. Auditors generally use a statistics software program to choose a random sample when statistical sampling is used. The results of testing using statistical sampling, unlike those from judgmental sampling, can usually be used to make conclusions or projections about entire populations.

5. Confidence level is a mathematically based measure of the auditor's assurance that the sample results (statistic) are representative of the population (parameter), expressed as a percentage.

6. Expected error rate is the number of errors that are expected in the population, expressed as a percentage. It is based on the auditor's knowledge of factors such as prior year results, the understanding of controls gained in planning, or a probe sample.

7. The tolerable error rate (which is expressed as a percentage) is the maximum error in the population that is acceptable while still using the sample to conclude that the results from the sample have achieved the objective.

- For both of the samples (the targeted 10 untimely drop-offs that were excessively late and the randomly selected 47 trips with untimely drop-offs), we examined the manager of transit operations's monthly reconciliation notes corresponding to untimely drop-offs, and we identified the cause of each untimely drop-off from these notes.

Missed Trips

To determine whether BAT complied with its performance standard of having a missed trip rate of no more than 2% of all scheduled trips, we took the following actions: We assessed 100% of all eight trips that were missed during the audit period by calculating the percentage of missed trips from the total amount of trips scheduled during the audit period. We then examined the manager of transit operations's monthly reconciliation notes corresponding to all eight missed trips, and we identified the cause of each missed trip from these notes.

We noted no exceptions in our testing; therefore, we conclude that, during the audit period, BAT delivered ADA-required paratransit services on time in accordance with 49 CFR 37.23(a); Sections 5.3, 5.4, and 5.6 of Chapter 8 of the Federal Transit Administration's Circular 4710.1; and BAT's "ADA Paratransit Services Guide."

ADA Paratransit Complaints

To determine whether BAT ensured that all ADA paratransit complaints were investigated and responded to as required by 49 CFR 27.13(b) and BAT's "ADA Paratransit Services Guide," we took the following actions. We obtained a dataset of ADA paratransit complaints from BAT. We analyzed 100% of the 39 ADA paratransit complaints that BAT received during the audit period. We calculated the business days between the date BAT received each complaint and the date of BAT's documented follow-up with the complainant, which included the investigation of and the resolution to the ADA paratransit complaint. We identified 9 complaints that were not resolved within 72 hours and requested additional information for these 9 complaints to determine why BAT did not resolve these complaints within 72 hours. We examined the information corresponding to each record for these 9 ADA paratransit complaints (i.e., the description of the complaint and BAT's investigation comments regarding it), and cross-referenced this information to the additional notes for each complaint that BAT's manager of transit operations provided to us. We performed this cross-reference to determine the date of the resolution and the reason why the complaint was not resolved within 72 hours.

We noted no exceptions in our testing; therefore, we conclude that, during the audit period, BAT ensured that all ADA paratransit complaints are investigated and responded to as required by 49 CFR 27.13(b) and BAT’s “ADA Paratransit Services Guide.”

Data Reliability Assessment

Transit Scheduling and Dispatching System

To determine the reliability of the ADA-required paratransit trip dataset from BAT’s transit scheduling and dispatching system, we interviewed officials who were knowledgeable about the ADA-required paratransit trip dataset and tested selected information system controls (e.g., security management, configuration management, contingency planning, and segregation of duties) corresponding to this data. We then tested the ADA-required paratransit trip dataset to ensure that there were no records that were missing, duplicate, or outside of the audit period.

We obtained a list of 351 riders who were on BAT’s list of approved ADA-required paratransit riders from BAT’s administrator, selected a random sample of 20 riders, and traced each of these 20 ADA-required paratransit rider records to hardcopy rider applications. We randomly selected 20 hardcopy ADA-required paratransit rider applications and traced these applications to the list of riders who were on BAT’s ADA-required paratransit service list. We verified that all riders who received ADA-required paratransit services from BAT during the audit period were on BAT’s list of riders eligible for ADA-required paratransit services.

When we found missing information within the ADA-required paratransit trip dataset, we followed up with management to obtain reasonable explanations for the missing data before conducting our analyses. While there was a small number of missing data points in BAT’s datasets—out of all the 39,228 trips that occurred during the audit period, 187 trips (0.17%) were missing a pickup time and out of the 11,682 trips with a scheduled drop-off time, 9 trips with a scheduled drop-off time (0.08%) were missing a drop-off time—this issue does not have a significant impact on BAT’s on-time performance and untimely drop-off metrics.

Complaint Management System

To determine the reliability of the ADA paratransit complaint dataset from BAT’s complaint management system, we interviewed officials who were knowledgeable about the datasets for ADA-

required paratransit trips and ADA paratransit complaints. We tested selected information system controls (e.g., security management, configuration management, contingency planning, and segregation of duties) corresponding to the complaint management system. We tested the ADA paratransit complaint dataset to ensure that there were no records that were missing, duplicate, or outside of the audit period. When we found missing information within the ADA paratransit complaint dataset, we followed up with management to obtain reasonable explanations for the missing data before conducting our analyses.

Based on the results of the data reliability procedures described above, we determined that the information obtained for the audit period was sufficiently reliable for the purposes of our audit.

Conclusion

Our audit revealed no significant issues that must be reported under generally accepted government auditing standards. We noted no exceptions in our testing; therefore, we conclude that BAT delivered ADA-required paratransit services on time, and BAT ensured that all ADA paratransit complaints are investigated and responded to, during the audit period.