2024

SRTA Year End Fixed Route Ridership Analysis: FY 2024

Contents

Figures

I. Introduction

Presented here are the results of an in-depth analysis of ridership trends for the Southeastern Regional Transit Authority (SRTA) fixed route service for the entirety of fiscal year 2024 (FY24); FY24 began July 1, 2023 and ended June 30, 2024.

Ridership data is collected and reported by Ridecheck Plus v8.52. Ridecheck Plus receives raw data from the automatic passenger counters on each SRTA fixed route vehicle and processes the data for quality control to eliminate errors and inconsistencies in the data. The resulting dataset is available at the trip and stop level and is used in this report for stop, trip, and route level data. Systemwide data is further processed by Ridecheck Plus and a correction factor is applied by an algorithm to account for data that was discarded during the initial processing. The corrected data is used for reporting systemwide ridership and has been approved by the Federal Transit Administration for use in reporting to the National Transit Database.

Values for revenue miles and revenue hours are calculated using data collected by the Clever Devices Automatic Vehicle Locator system which records time and distance for buses in fixed route service. The data was also used to report on-time performance and passenger boarding and alighting at stops. The data is reported using Ridecheck Plus v8.52.

Tableau Desktop was used to analyze ridership data and develop the tables and charts found in this report.

A. Key Terms Used in this Report

Route is the path a vehicle will travel while operated in service which passengers are permitted to board after paying the appropriate fare.

Trip is a segment of time in which the vehicle will travel a route in a single direction from one end of the route to the other end of the route.

Ridership is the number of trips recorded by SRTA fixed route vehicles.

Revenue Miles is the measure of distance traveled by a fixed route vehicle operated along scheduled routes in which passengers are permitted to board after paying the appropriate fare.

Revenue Hours is the measure of time a fixed route vehicle is operated along scheduled routes in which passengers are permitted to board after paying the appropriate fare.

Passengers per Revenue Mile (PPRM) is the calculation of the number of passengers boarding a fixed route vehicle for each mile the vehicle operates revenue service.

Passengers per Revenue Hour (PPRH) is the calculation of the number of passengers boarding a fixed route vehicle for each hour the vehicle operates revenue service.

Passenger per Trip (PPT) is the calculation of the number of passengers boarding a fixed route vehicle for each trip the vehicle performs in revenue service.

Boardings per Day is the stop level calculation of total boardings divided by the total number of days the stop was serviced.

Alightings per Day is the stop level calculation of total alightings divided by the total number of days the stop was serviced.

Stop Use is the ratio of total boardings and alightings and the number of trips serving a bus stop. The ratio measures how frequently the bus stops compared with the number of times it passes a stop and ranges from 0.00 – 1.00 and is represented as a percentage.

B. List of Routes in Service during FY24

Route	Route Name
9	Intercity Route - New Bedford/Fall River
101	Route 101 - South Main Street
102	Route 102 - North Main Street
103	Route 10.3 - Laurel Street
104	Route 104 - Robeson Street
105	Route 105 - Stafford Street
107	Route 107 - Bay Street
108	Route 108 - Bristol Community College/Durfee High School
109	Route 109 - Bedford Street
110	Route 110 - Rodman Street
114	Route 114 - Swansea Mall
199	Route 9 - Intercity Tripper*
201	Route 201 - Fort Rodman
210	Route 110 - Dartmouth Mall
211	Route 211 - Fairhaven
202	Route 202 - Lund's Corner
203	Route 203 - Dartmouth Street
204	Route 204 - Ashley Boulevard
205	Route 205 - South Central
206	Route 206 - Shawmut/Rockdale
208	Route 208 - Mt. Pleasant Street
221	Route 221 - North End Shuttle
299	New Bedford High School – North*
299	New Bedford High School – South*
299	New Bedford Keith Middle School – North*
299	New Bedford Keith Middle School – South*
NBW	New Bedford / Wareham - New Bedford to Wareham**

*Route only in service when school is in session.

** Vehicles serving this route are not equipped with APC or AVL equipment. Data is collected manually and is not input to the Ridecheck Plus system and has therefor been excluded from this report.

II. Key Findings

A. Ridership

FY24 was an unprecedented year for SRTA, both in the total number of trips taken and also in service provided. The year finished with 2,827,789 total trips taken on SRTA Fixed Route buses; a record high year in a trend of increasing ridership over the years post COVID-19. Ridership is up on the Demand Response system as well with FY24 recording 104,788 trips; a 32% increase over FY23.

Several significant changes were implemented in FY24 that contributed to the increased ridership. On January 1, 2024, fare collection was suspended due in part to a statewide grant to provide fare free transit across the Commonwealth. Additionally, Sunday service was implemented on Sunday, January 28, 2024. Sunday service was a transformational service addition making SRTA a daily operation. The combined effect of fare free operations and Sunday service increased ridership in Quarters 3 & 4 43% over the same period in FY23.

The story of FY24 is best understood looking at the two halve of the year. Quarter 1 & 2 showed little signs of ridership growth; most routes were performing similarly to previous years and overall total ridership was flat. Quarter 3 & 4 ridership grew substantially; most routes saw growth over the same period from the previous year.

Total ridership for the previous five fiscal years is shown below in Figure 1.

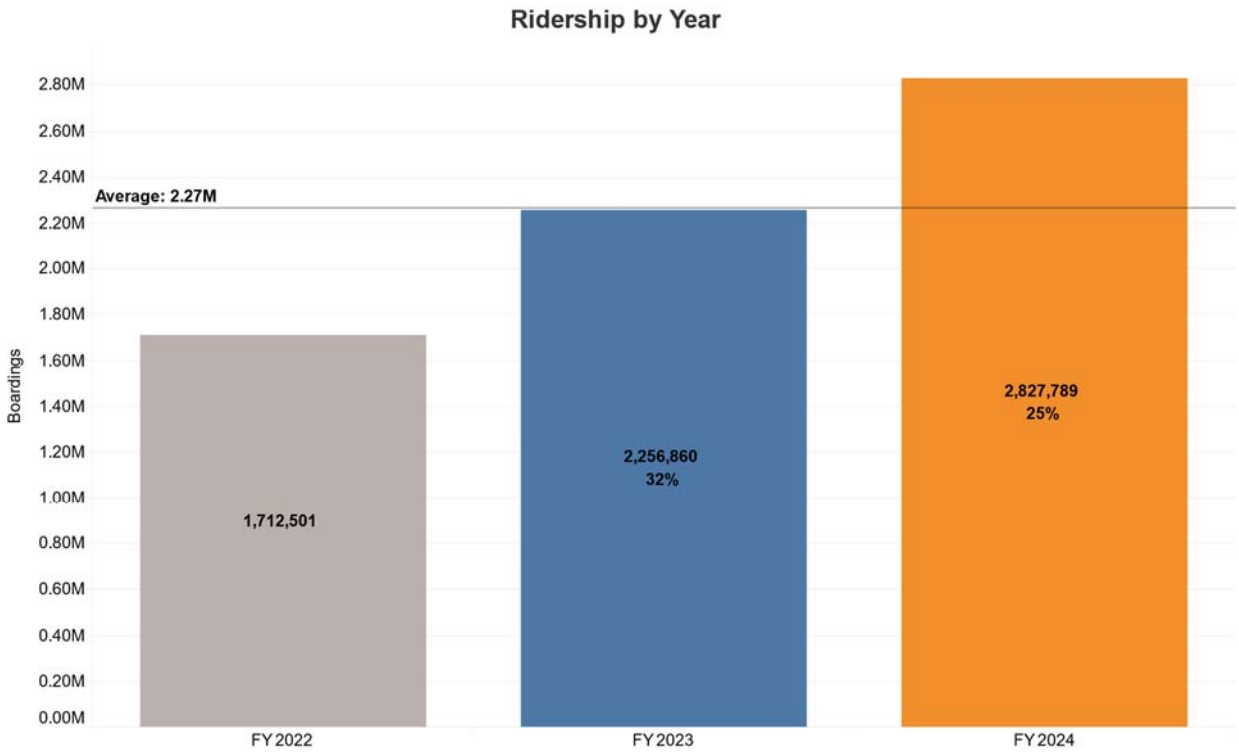

Figure 1: SRTA Total Ridership FY22-FY24

SRTA operates fixed route service out of two terminals: Fall River and New Bedford. The service from each terminal operates independent of the other with exception of the Route 9 – Intercity (9) which provides a connection between New Bedford and Fall River.

The service in each city reflects the unique service demands for each city, and as a result the ridership trends vary between the two cities. Ridership in Fall River for FY24 was 1,121,869 trips (41% of the systemwide total). Ridership in New Bedford was 1,584,732 trips (59% of the systemwide total). The totals are shown below in Figure 2.

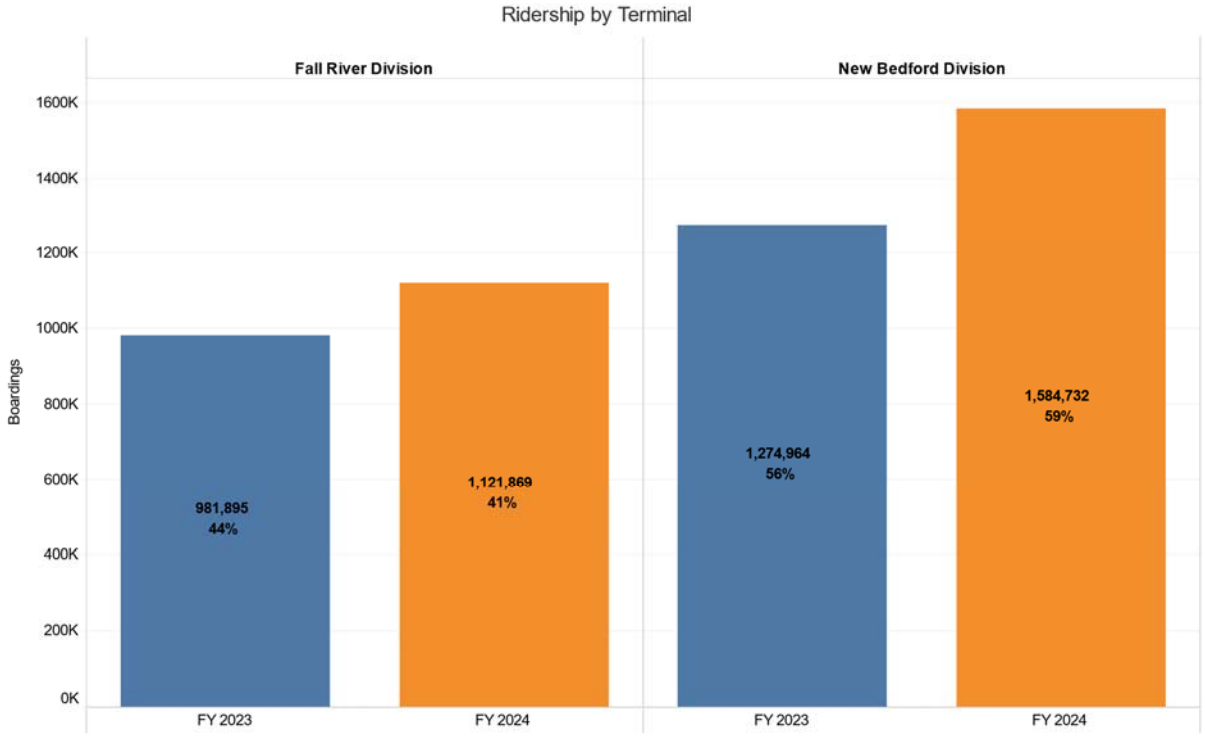

Figure 2: Total by Terminal FY23 & FY24

SRTA operates three schedules for service: Weekday, Saturday, and Sunday. Weekday service operates Monday through Friday and provides the greatest span of service and the shortest headways of the three schedules. Saturday and Sunday service share the same schedule, which provides shorter span of service and longer headways than the Weekday schedule. The Saturday schedule is operated each Saturday and on weekdays when a federal or state holiday is observed.

There were 334 service days in FY24. There were 248 Weekdays, 63 Saturdays, and 23 Sundays.

Weekday ridership increased 19% in FY24 to 2,396,940; the FY23 weekday total ridership was 2,021,204. Saturday ridership from the FY23 total of 235,655 to the FY24 total of 335,436. Sunday ridership was 95,413; the service is new in FY24 and has no previous comparison. The results are shown below in Figure 3.

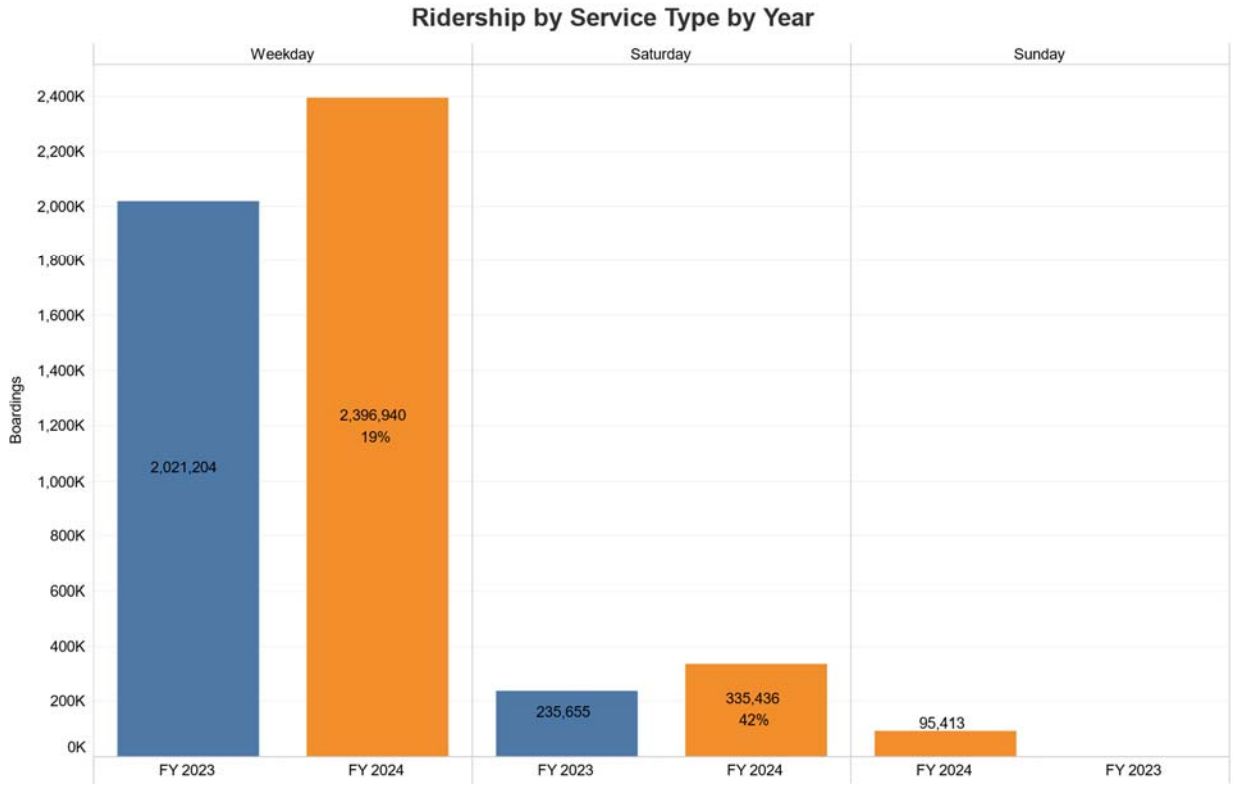

Figure 3: Ridership by Service Schedule

B. Fare Payment

The Sheidt & Bachmann fare collection system records detailed information for each transaction made when passengers pay a fare. This information is useful to determine the method customers pay for their service and the extent that various pass products are used by SRTA customer. Fare collection was suspended on January 1, 2024; this report only evaluates the fares collected from July 1, 2023 to December 31, 2023. Because the fare collection was suspended mid-year, trends and changes in fare payment isn't compared with previous years.

The results are shown below in Figure 4.

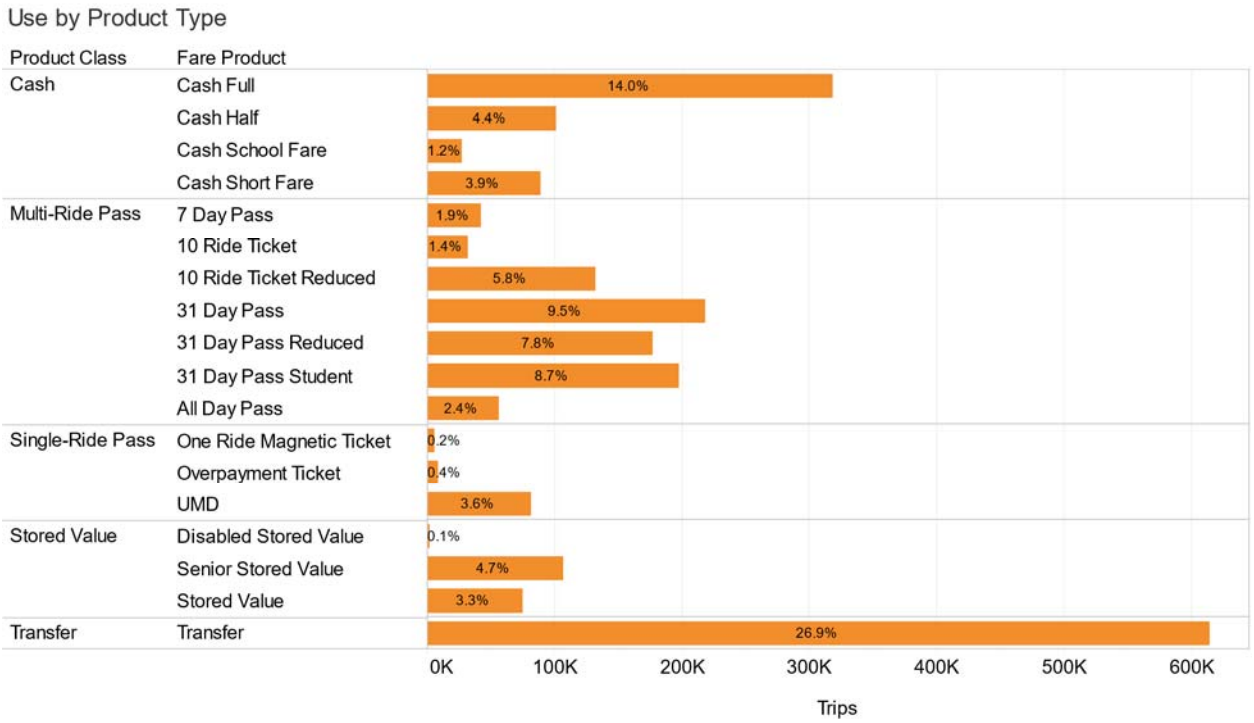

Figure 4: Fare Product Use

Fare products are sold in three locations: at the farebox, at the ticket vending machines located in both terminals, and at the staffed ticket windows in each terminal. Farebox sales only accept cash for: single trips, add value to stored value products, or purchase an All-Day Pass. Ticket vending machines and ticket windows sell all fare products and accept cash, credit, and debit transactions.

The average fare paid per pass use is calculated by dividing the total value of products sold by the total number of unlinked passenger trips recorded for the pass products. The resulting figure measures the value each pass provides to the user relative to the maximum fare that user may otherwise be required to pay. For example, an adult rider may choose to pay cash when boarding, which would cost $1.50 for each trip; however, if that same adult purchased a 31 Day Pass for $30.00, they would be provided unlimited use of the SRTA Fixed Route bus network while the pass is valid, and assuming they use the pass more than 20 times, they have maximized the use of the pass by reducing their per trip cost below $1.50.

All multi-use passes, with the exception of the Ten Trip Ticket, provided a significant savings to customers over paying the cash fare. The greatest value was the All-Day pass with which customers saved an average of 76% over the cost of a single trip fare. The 31-Day Pass provided a 57% savings over the cash fare.

The results are shown in

Pass	Trips	Cost per Trip	Discount
7 Day Pass	27,819	$0.77	49%
10 Ride Ticket	16,528	$1.27	15%
10 Ride Ticket Reduced	23,118	$0.66	56%
31 Day Pass reduced	101,159	$0.38	75%
31 Day Pass	126,416	$0.65	57%
31 Day Pass student	154,441	$0.91	39%
All Day Pass	40,090	$0.37	76%

Figure 5.

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7 Day Pass	27,819	$0.77	49%
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All Day Pass	40,090	$0.37	76%

Figure 5: Average Fare by Multi-Use Product

Another way of evaluating Multi-Use Products is by the average number of trips taken with each pass type. The average fare paid answers the question of the value of the multi-use pass for the customer; the average number of trips taken for each pass type answers the question of how frequently do multi-use riders use the pass. This analysis includes all the pass types analyzed for average fare and include two additional passes: full price and reduced price 10 Ride Ticket. Interestingly, the utilization of ten trip tickets is less than 100% of trips purchased. The product is sold for $14.00 at full price and $7.50 reduced price to students, which would represent a per trip cost of $1.40 and $0.75 respectively. This is the only multi-use product where utilization can be measured as a ratio of trips available. Average trips taken per ten trip ticket was 11. It is possible that the trips per pass would exceed ten; there could be more passes in circulation than sold since the sales only account for July 1, 2023 through December 31, 2023.

Pass utilization was highest for the 31-Day Pass Reduced: an average of 53 trips per pass was observed for FY24. However, the 31-Day Pass had nearly as many trips per pass at 41. This suggests that when SRTA customers purchase a 31-Day Pass, regardless of the cost, they ride often and maximize the value of the pass. Of interest is the number of trips per All Day Pass, which is good only for the day it was purchased. There was an average of 7 trips per pass sold which suggests that customers buy the pass when they have a multiple trips to make in a single day. The full results are below in Figure 6

Pass	Sold	Trips	Trips per Pass
7 Day Pass	2,142	27,819	13
10 Ride Ticket	1,498	16,528	11
31 Day Pass reduced	1,905	101,159	53

31 Day Pass	2,735	126,416	46
31 Day Pass student	7,022	154,441	22
10 Ride Ticket Reduced	2,046	23,118	11
All Day Pass	4,903	40,090	8

Figure 6: Average Trips per Multi-Use Product

III. Performance Analysis of Service

SRTA adopted performance standards to assess the productivity of service for each route relative to the whole system. The standards are quantitative indicators that measure route performance against a specific measure of productivity for the purpose of identifying routes that are underperforming expectations.

Route performance is measured against the systemwide average and falls in one of three categories:

- **Pass** – productivity measure is greater than 50% of the systemwide average and no corrective action is necessary.
- **Monitor** – productivity is less than 50% of the systemwide average but greater than 35% of the systemwide average, performance should be monitored, and a corrective plan should be developed;
- **Fail** – productivity is less than 35% of the systemwide average, the corrective plan should be implemented.

There are three indicators used in this report: **passengers per revenue hour, passenger per revenue mile, and passengers per trip**. The metrics each measure a different aspect of transit route productivity, each providing a slightly different insight in to how the service is being used by SRTA customers.

Passengers per revenue hour measures the number of passengers boarding a route during an hour of service. It is reported as an average number based on the total number of hours a route is in service and the total passengers that boarded the route during a period of time. Passengers per revenue hour identifies productivity based on the amount of time a route is in service and is a way to determine if that time is being used as efficiently as possible. Routes with a greater frequency of service tend to perform better over those with lower frequency as there are more opportunities in an hour for the route to board passengers.

Passengers per revenue mile measures the number of passengers boarding a route over the course of a mile of service. It is reported as an average number based on the total number of miles a route travels while in service and the total number of passengers that board the route while in service. Passengers per revenue mile identifies productivity based on the total distance a route travels and is a way to determine if the distance traveled by the route is being used as efficiently as possible. Routes that are shorter and serve more densely developed areas tend to perform better over those that are longer and serve less densely developed areas.

Passenger per trip measures the number of passengers that board a bus each time it travels the route. It is reported as an average number based on the total number of trips performed on a route and the total number of passengers that board the route during a trip. Passengers per trip identifies the number of passengers that board a vehicle for each trip and is a way to determine if the amount of service for a route is being allocated as efficiently as possible. This metric is as close to a combined metric of hours and miles but tends to favor routes that serve more densely developed areas, as there is a greater potential to pick up passenger.

A. Passengers per Revenue Hour

The systemwide average for passengers per revenue hour (PPRH) was 29.75, an increase of 20% over FY23; the Monitor category was set at 14.88 and the Fail category was set at 10.41.

Ten of the twenty-one routes operated in FY24 performed above the average PPRH; ten were below the average but above the Monitor category; only one route fell into the Fail category

Route 221 - North End Shuttle is a perennial low-performer. The North End Shuttle serves a low-density part of New Bedford. Ridership on the route is low, but there is very little fluctuation in the volume of passengers carried on the route day-to-day and month-to-month. This suggests that the few riders of the North End Shuttle ride regularly.

The results of the Passengers per Revenue Hour analysis are shown on the next page in Figure 7 and Figure 8.

Passengers per Revenue Hour

Route Name	July	August	September	October	November	December	January	February	March	April	May	June	YTD
9	24.74	25.53	33.18	30.29	28.42	25.67	28.66	33.48	33.16	35.50	36.05	35.66	30.98
101	23.72	23.77	32.77	33.46	31.44	30.21	37.22	40.05	42.13	44.15	43.61	43.57	35.89
102	19.41	21.45	22.65	24.52	24.60	22.76	26.09	28.22	30.09	31.32	33.60	34.91	26.73
103	26.21	25.78	30.76	33.03	32.12	31.27	37.04	40.08	42.53	44.08	45.84	48.17	36.77
104	22.12	20.55	30.96	34.17	30.19	27.37	30.84	30.56	32.94	34.76	37.14	34.35	30.94
105	21.52	22.13	28.39	31.82	29.62	27.73	32.47	31.86	34.70	34.53	36.47	36.19	30.91
107	13.85	13.71	29.39	30.60	28.81	26.76	34.68	36.40	37.17	33.30	35.92	40.54	29.61
108	21.47	16.25	40.13	44.99	39.89	35.92	43.03	35.79	45.49	40.81	46.48	36.35	37.78
109	14.62	13.91	26.92	25.95	25.16	24.68	30.17	32.25	34.06	34.43	36.42	36.92	27.16
110	22.71	23.52	28.29	30.09	30.26	29.25	36.41	36.58	39.78	39.44	40.88	43.55	34.53
114	10.69	12.40	13.41	16.03	18.49	20.09	22.26	20.82	24.01	24.03	25.72	16.31	17.83
201	32.41	31.56	36.17	36.80	32.39	32.78	43.23	43.97	48.15	51.90	57.87	57.33	41.79
202	28.77	29.52	30.02	30.40	29.38	27.73	32.35	35.01	39.88	39.95	41.25	44.27	34.22
203	16.65	16.65	17.27	18.04	16.00	16.55	19.60	20.55	21.91	22.43	25.63	25.37	19.66
204	23.51	25.38	28.24	26.45	25.68	23.98	29.52	31.37	33.33	35.35	36.68	34.97	29.80
205	16.52	18.00	22.04	23.87	22.12	19.08	20.98	20.82	21.69	21.28	21.33	26.94	21.00
206	14.99	15.00	18.95	17.76	16.14	15.99	16.67	21.05	20.73	21.32	22.36	20.95	18.32
208	29.05	29.85	30.48	31.03	29.41	28.05	29.88	30.94	33.17	36.64	37.21	39.08	32.41
210	18.47	20.18	20.81	19.84	17.19	17.09	18.76	20.88	20.79	21.49	23.87	25.04	20.30
211	18.31	17.70	18.37	18.39	17.97	18.95	20.35	20.28	21.46	23.00	26.27	26.83	20.56
221	7.56	7.14	8.36	9.10	8.12	7.93	6.66	6.30	6.90	7.36	6.32	6.68	7.34
System Average	22.16	22.55	27.64	28.23	26.70	25.31	29.86	31.32	33.65	34.79	36.72	36.79	29.75

Figure 7: FY24 Passengers per Revenue Hour Table

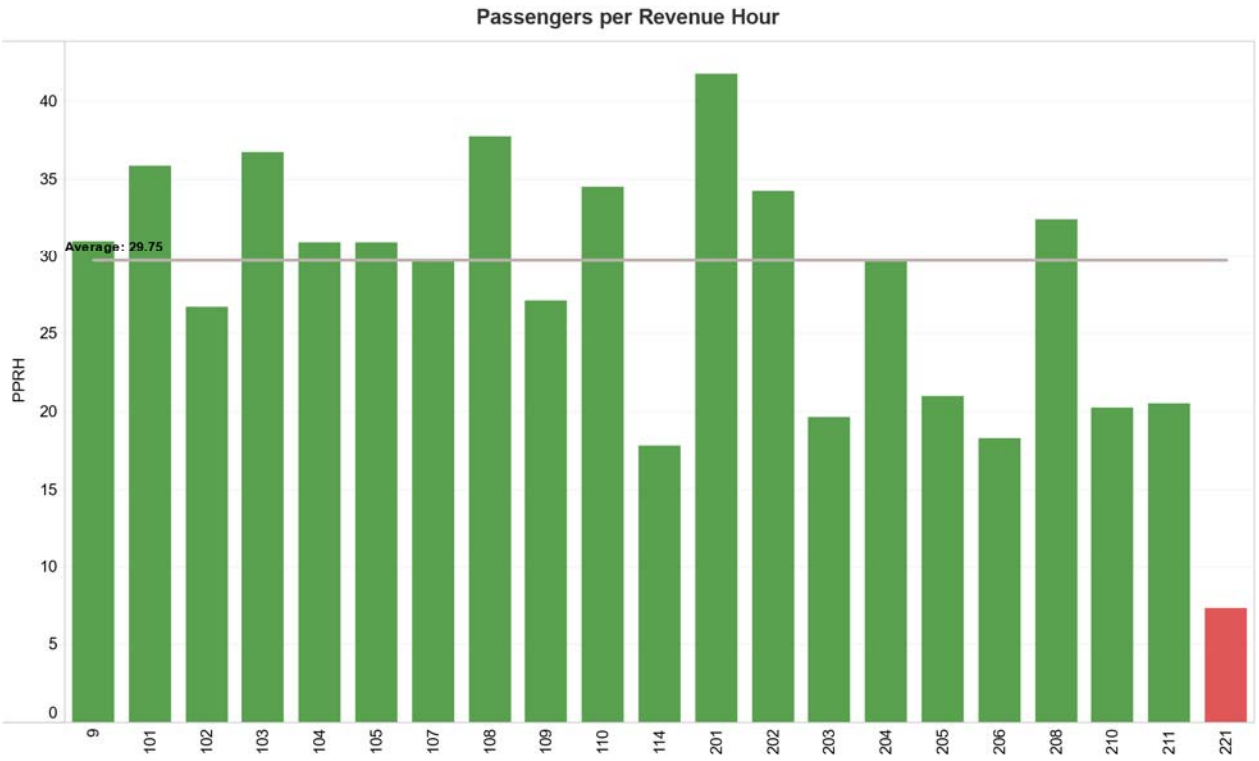

Figure 8: FY24 Passengers per Revenue Hour Score Chart

B. Passengers per Revenue Mile

The systemwide average for passengers per revenue mile was 1.79, an increase of 22% over FY23; the Monitor category was set at 0.90 and the Fail category was set at 0.63. Ten of twenty-one routes were observed above the average of 1.79; nine routes performed below the average but above the Monitor category.

Two routes fell in the Fail category: Route 114 and Route 221.

The results of the Passengers per Revenue Mile analysis are shown below in Figure 9 and Figure 10.

Passengers per Revenue Mile

Route Name	July	August	September	October	November	December	January	February	March	April	May	June	YTD
9	1.30	1.36	1.73	1.60	1.49	1.36	1.45	1.72	1.73	1.87	1.84	1.87	1.62
101	1.73	1.77	2.32	2.40	2.23	2.10	2.54	2.75	2.96	3.13	3.24	2.97	2.54
102	0.85	0.92	1.14	1.20	1.20	1.08	1.23	1.35	1.45	1.51	1.64	1.65	1.27
103	2.21	2.16	2.62	2.85	2.80	2.72	3.08	3.38	3.58	3.71	3.92	3.88	3.11
104	1.00	1.07	2.02	2.16	1.92	1.66	1.87	1.79	1.98	2.13	2.28	1.98	1.83
105	1.42	1.46	1.89	2.11	1.90	1.82	2.11	2.10	2.29	2.29	2.45	2.31	2.03
107	0.88	0.91	1.81	1.98	1.80	1.60	2.12	2.22	2.30	2.07	2.30	2.42	1.85
108	1.31	1.01	2.54	2.87	2.48	2.17	2.66	2.18	2.73	2.46	2.78	2.00	2.30
109	0.91	0.86	1.84	1.77	1.67	1.67	2.02	2.01	2.24	2.24	2.48	2.29	1.77
110	1.48	1.57	2.02	2.18	2.16	2.11	2.54	2.59	2.85	2.85	3.01	3.01	2.45
114	0.44	0.44	0.39	0.43	0.42	0.45	0.46	0.45	0.52	0.52	0.55	0.51	0.47
201	2.40	2.32	2.56	2.55	2.26	2.27	3.11	3.00	3.20	3.41	3.61	3.79	2.88
202	2.16	2.22	2.39	2.41	2.37	2.20	2.55	2.71	3.11	3.13	3.28	3.45	2.68
203	1.10	1.10	1.19	1.24	1.09	1.10	1.33	1.39	1.47	1.52	1.79	1.71	1.33
204	1.29	1.42	1.65	1.56	1.49	1.36	1.71	1.83	1.90	2.06	2.18	2.03	1.72
205	0.93	1.02	0.97	1.05	0.99	0.92	1.08	1.16	1.12	1.09	1.14	1.40	1.07
206	0.92	0.93	1.15	1.06	0.98	0.94	1.01	1.22	1.22	1.29	1.34	1.20	1.10
208	1.89	1.93	2.08	2.13	2.04	1.87	1.97	2.00	2.21	2.53	2.66	2.75	2.19
210	1.06	1.22	1.29	1.25	1.07	1.06	1.13	1.26	1.25	1.32	1.53	1.56	1.24
211	1.21	1.15	1.28	1.27	1.24	1.29	1.35	1.36	1.41	1.54	1.76	1.75	1.38
221	0.34	0.33	0.38	0.40	0.36	0.34	0.28	0.28	0.30	0.32	0.28	0.28	0.32
System Average	1.31	1.35	1.69	1.74	1.63	1.52	1.78	1.86	1.99	2.09	2.22	2.19	1.79

Figure 9: FY24 Passengers per Revenue Mile Table

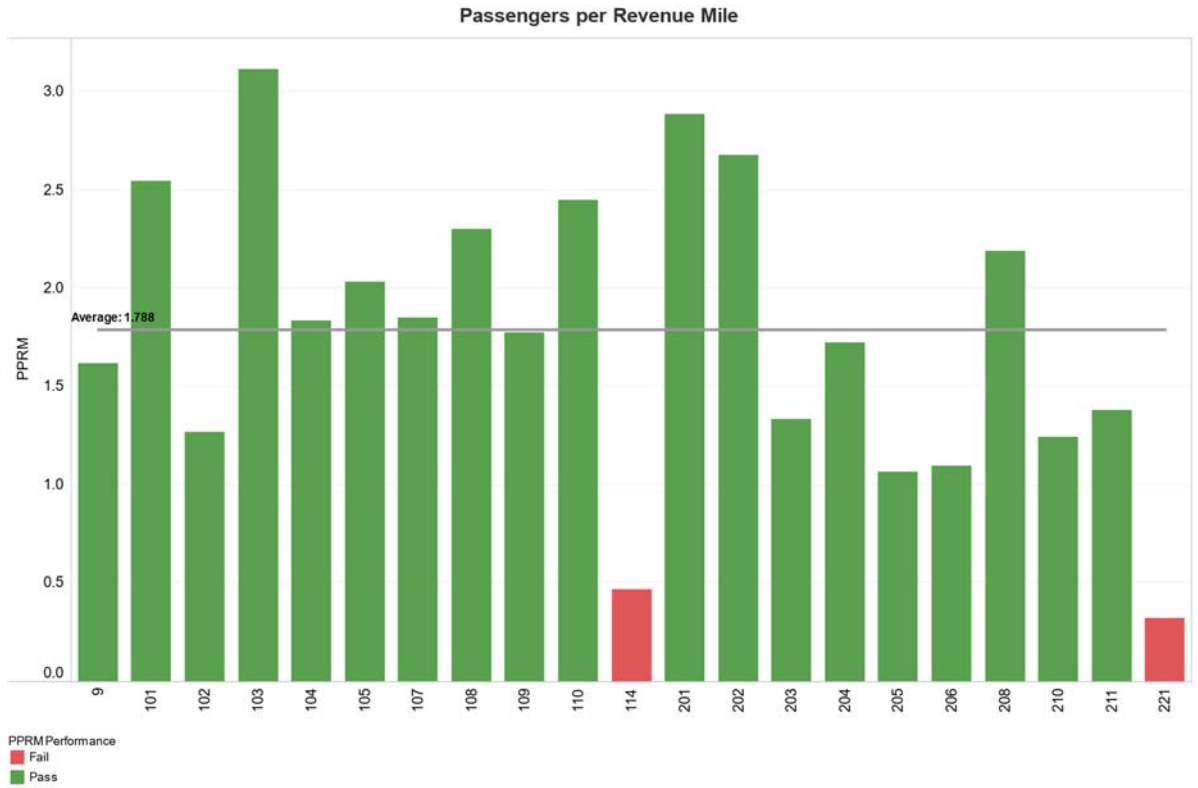

Figure 10: FY24 Passengers per Revenue Mile Chart

C. Passengers per Trip

The systemwide average for passengers per trip was 9.01, an increase of 17% over FY23; the Monitor category was set at 4.51 and the Fail category was set at 3.15. Seven of twenty-one routes were observed above the average of 9.01; ten routes were below the average but above the Monitor category.

Three routes fell in the Monitor category: Route 114 - Swansea and Route 206 – Shawmut Ave. The 114 is perennially in the monitor category largely due to the low-density corridor is serves with few destinations that generate high demand for transit. The 206 was in the Monitor category for its performance considered over the entire year, however monthly, the route was in the Monitor category for eight months of the year. Route 221 was also in the Monitor category, however for six months it did not exceed 35% of the monthly average and was otherwise in the Fail category.

One route was in the Fail category: Route 205 – South Central. The route has been experiencing a steady decline in ridership for several years. It lacks a strong anchor on the route with only one substantial residential building trip generator.

The full results of the analysis are shown below in Figure 11 and Figure 12.

Passengers per Trip

Route Name	July	August	September	October	November	December	January	February	March	April	May	June	YTD
9	22.84	24.00	30.75	28.53	26.54	24.04	25.41	29.77	29.79	32.21	31.69	32.27	28.29
101	4.77	4.87	6.17	6.39	5.92	5.59	6.76	7.31	7.86	8.33	8.63	7.88	6.80
102	7.74	8.26	8.77	9.22	9.26	8.34	9.46	10.39	11.17	11.59	12.54	12.68	10.01
103	6.48	6.34	7.66	8.33	8.20	7.96	9.04	9.90	10.50	10.88	11.50	11.39	9.12
104	4.11	4.37	8.08	8.64	7.72	6.70	7.53	7.24	7.99	8.56	9.19	8.04	7.40
105	5.77	5.94	7.67	8.55	7.72	7.37	8.55	8.52	9.30	9.32	9.98	9.30	8.25
107	3.97	3.91	5.80	6.34	5.76	5.12	6.77	7.10	7.34	6.60	7.35	7.72	6.24
108	4.59	3.54	8.82	9.91	8.58	7.55	9.21	7.57	9.46	8.54	9.63	6.97	7.99
109	3.77	3.41	4.86	4.69	4.42	4.43	5.35	5.32	5.93	5.93	6.55	6.07	5.09
110	5.36	5.38	5.40	5.79	5.75	5.61	6.76	7.24	8.01	7.99	8.46	8.40	6.87
114	3.95	4.00	3.50	3.90	3.78	4.07	4.19	4.11	4.72	4.76	4.96	5.12	4.27
201	8.96	8.70	9.83	9.81	8.69	8.15	10.23	10.76	11.60	12.36	13.08	13.76	10.55
202	9.87	10.09	10.24	10.34	10.14	9.42	10.90	11.86	13.67	13.75	14.39	15.15	11.71
203	5.53	5.49	5.82	6.08	5.35	5.41	6.48	6.84	7.27	7.50	8.81	8.47	6.56
204	7.16	7.86	9.01	8.57	8.19	7.49	9.39	9.95	10.39	11.26	11.93	11.06	9.43
205	1.21	1.34	1.28	1.38	1.31	1.20	1.40	1.50	1.45	1.41	1.48	1.83	1.39
206	3.60	3.66	4.53	4.16	3.85	3.71	3.98	4.84	4.79	5.09	5.29	4.74	4.32
208	6.66	6.79	7.30	7.46	7.18	6.77	7.48	7.45	8.22	9.38	9.88	10.25	7.98
210	7.65	8.82	9.35	8.99	7.72	7.67	8.14	9.08	9.06	9.51	11.05	11.33	8.99
211	8.00	7.62	8.34	8.31	8.09	8.44	8.79	9.04	9.34	10.17	11.62	11.50	9.08
221	4.11	3.96	4.59	4.87	4.34	3.93	3.03	3.02	3.24	3.53	3.12	3.08	3.68
System Average	7.00	7.16	8.55	8.75	8.12	7.57	8.83	9.16	9.91	10.43	11.04	11.00	9.01

Figure 11: FY24 Passengers per Trip Table

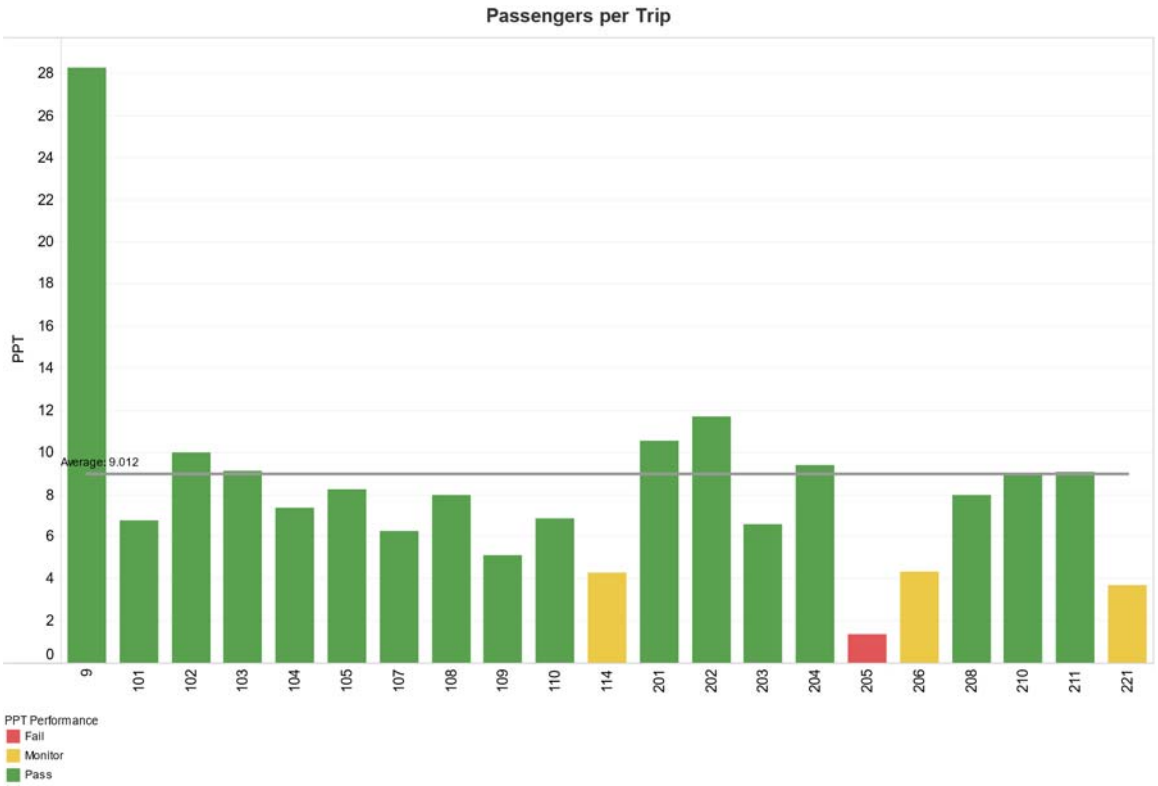

Figure 12: FY24 Passengers per Trip Chart

D. Significant changes in Route Ridership

The above section identified route performance relative to the standards SRTA uses to evaluate performance. The analysis is intended to identify underperforming routes for corrective actions, and because the standards are established relative to the systemwide performance, there are routes that experienced significant changes in ridership that did not affect the position relative to the whole.

Significant changes in ridership were identified based on the average change in ridership for all routes using the standard deviation from that average. Any route where the change was greater than 1.65 standard deviations from the average was identified as a significant change. 1.65 standard deviations were chosen because it includes 90% of the dataset, making any change above or below that threshold significantly greater than any other change observed and warrants further examination.

The average change in ridership across all routes was 16,349 more trips than the FY23 average. Routes with an increase of more than 47,479 represented 1.65 standard deviation above the average, whereas a decrease of more than 14,781 represented 1.65 standard deviation below average. However, due to significant changes in service that took effect in January 2024, the changes in ridership most occurred in quarters three and four.

FY24 started off without much growth in ridership, nearly equal for FY23, with an average change across all routes of 165 trips. More than half of the routes were experiencing declining ridership and none of the routes exceeded 1.65 standard deviations (10,700) for increases; Route 108 was the only route that exceeded 1.65 standard deviations for decreases (11,030).

The decrease in Route 108 is attributable to reassigning afternoon inbound service from Durfee High School to Route 104.

Fare collection was suspended on January 1 and Sunday Service was implemented on January 28, both of which dramatically changed the trajectory of ridership for FY24. There were 512,883 trips additional trips taken in Q3 & Q4 of FY24 compared with Q3 & Q4 of FY23, and a nearly ten-fold increase from the 58,406 trips added in Q1 & Q2 of FY24. Sunday service accounts for 19% of the increase, adding 94,413 trips to the system; the remaining 418,470 are largely attributable to fare suspension.

The results of the route ridership change analysis for the entirety of FY24 are shown below in Figure 13, the quarter 1 and 2 results are in Figure 14; quarter 3 & 4 results are in Figure 15.

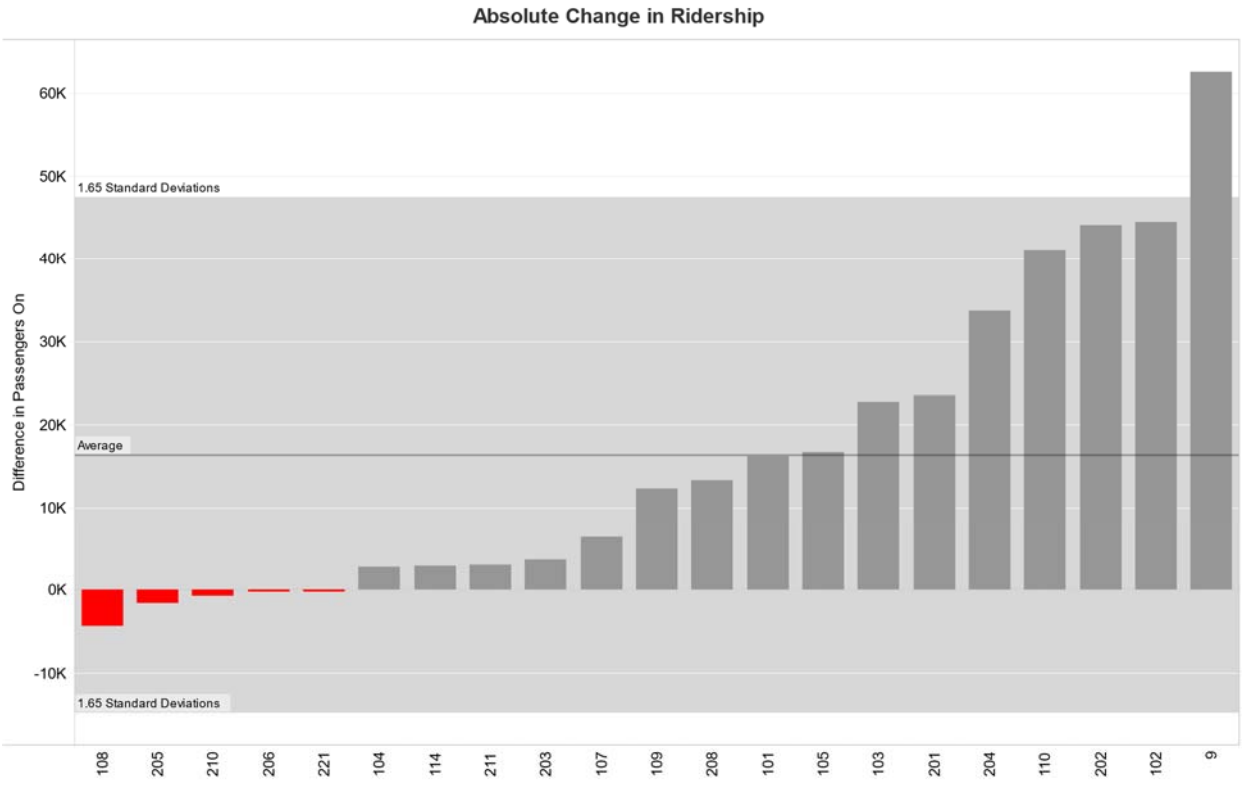

Figure 13: Route Ridership Change from FY23

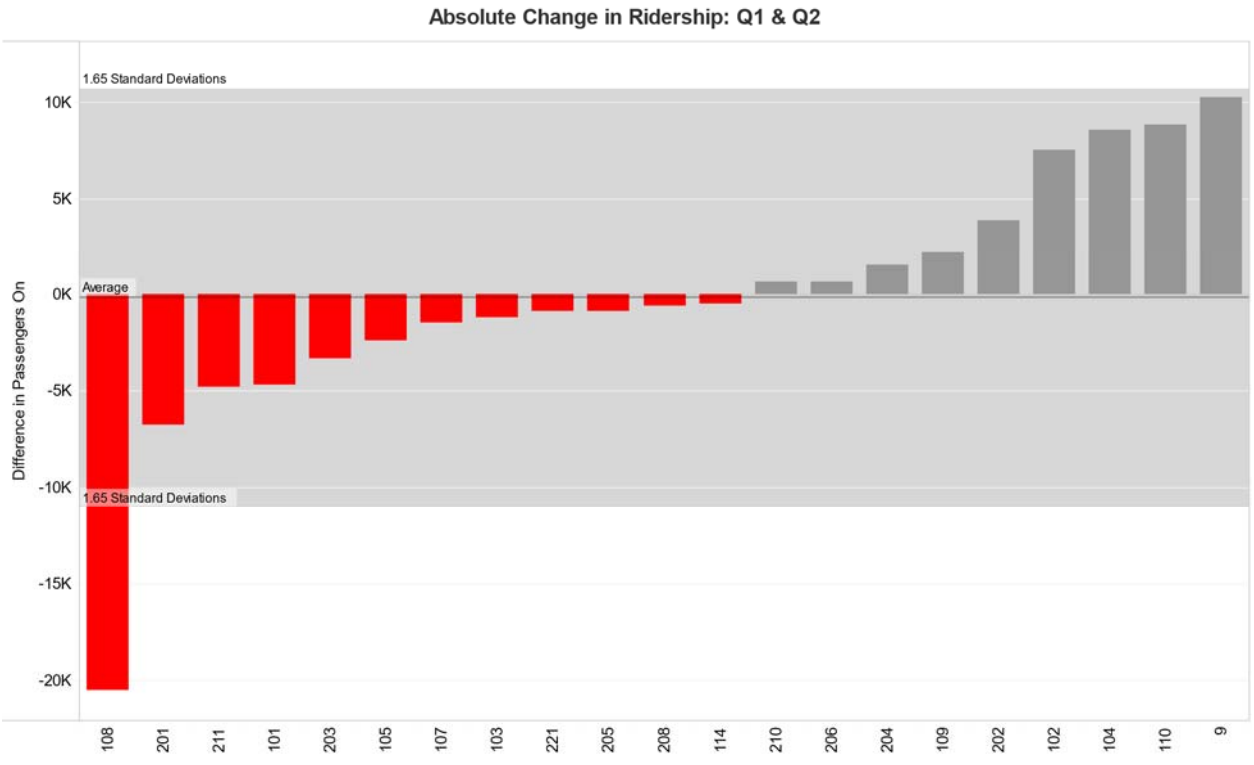

Figure 14: Significant Change in Ridership: Q1 & Q2

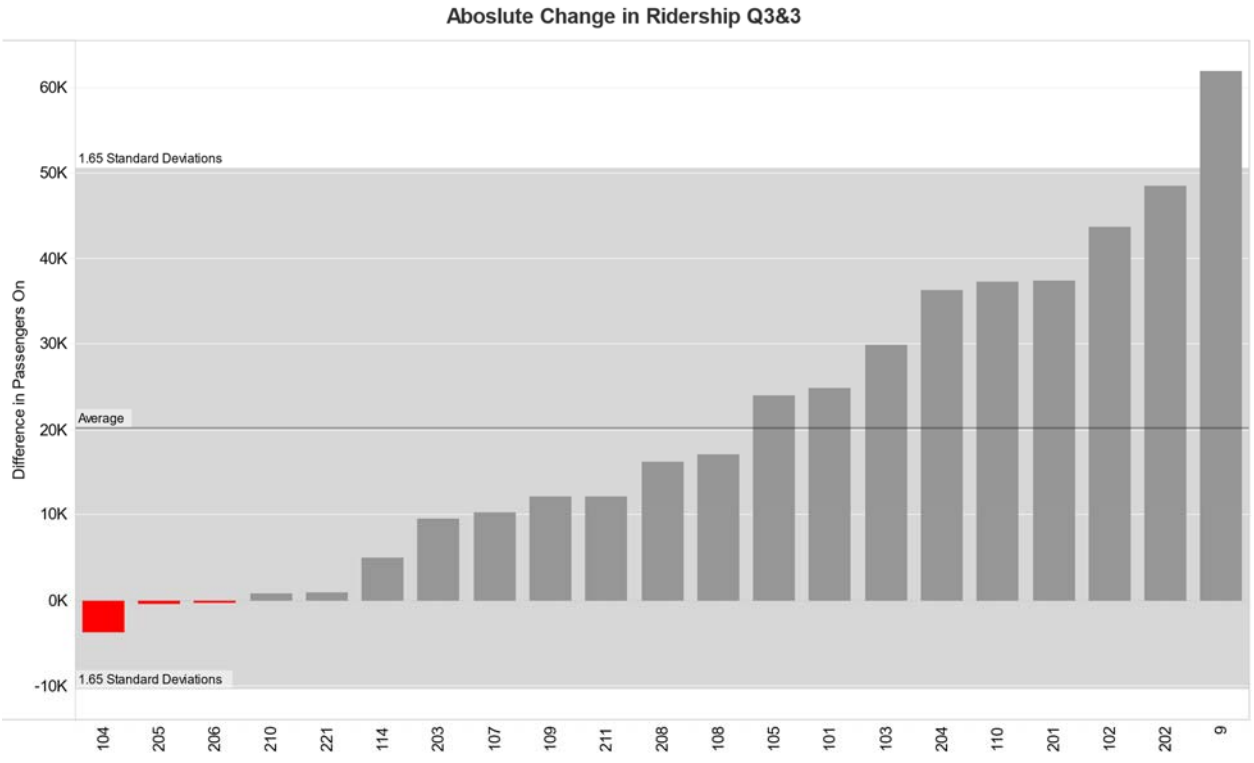

Figure 15: Significant Change in Ridership: Q3 & Q4

E. On-Time Performance

On-time performance is the operational statistic most relevant to the customer experience. A bus that arrives late is frustrating for customers because they rely on the fixed route transit system to carry them to their destination and plan their trip around the published times. Waiting for a bus that is running late can make customers anxious or stressed knowing they are likely to arrive at their destination later than they intended. More detrimental to the customer experience is a bus that runs early. Early departures are incredibly disruptive because the customer may be waiting for a bus that has already passed the stop. For many routes, missing a bus that arrived early can mean waiting as much as an hour for the next to arrive.

SRTA measures On-time performance against the scheduled departure time for the trip origin. Trip origins are either the New Bedford or Fall River Terminals for outbound buses; inbound trip origins are the location where the outbound trip ends. A trip is considered on-time if it departs the trip origin no less than one minute prior to the scheduled time or five minutes after the scheduled time. The systemwide metric for on-time performance is 85% of scheduled trips departing within the on-time performance window. Systemwide on-time performance for FY24 was 89%; less than 1% of trips left early, 11% of trips left late.

Four routes fell below the systemwide standard of 85%: 9 (84%), 107 (81%), 202 (84%), 210 (83%). Measuring on-time performance should also consider early departures because there are few, if any, operating conditions that would explain an early departure. In FY23 an On-Time Performance Improvement plan was initiated to improve the reliability of SRTA routes. A threshold of 1% was established for early departures. Three routes exceeded the 1% threshold: 204 (2%), 205 (3%), 208 (2%). The full results are below in Figure 16.

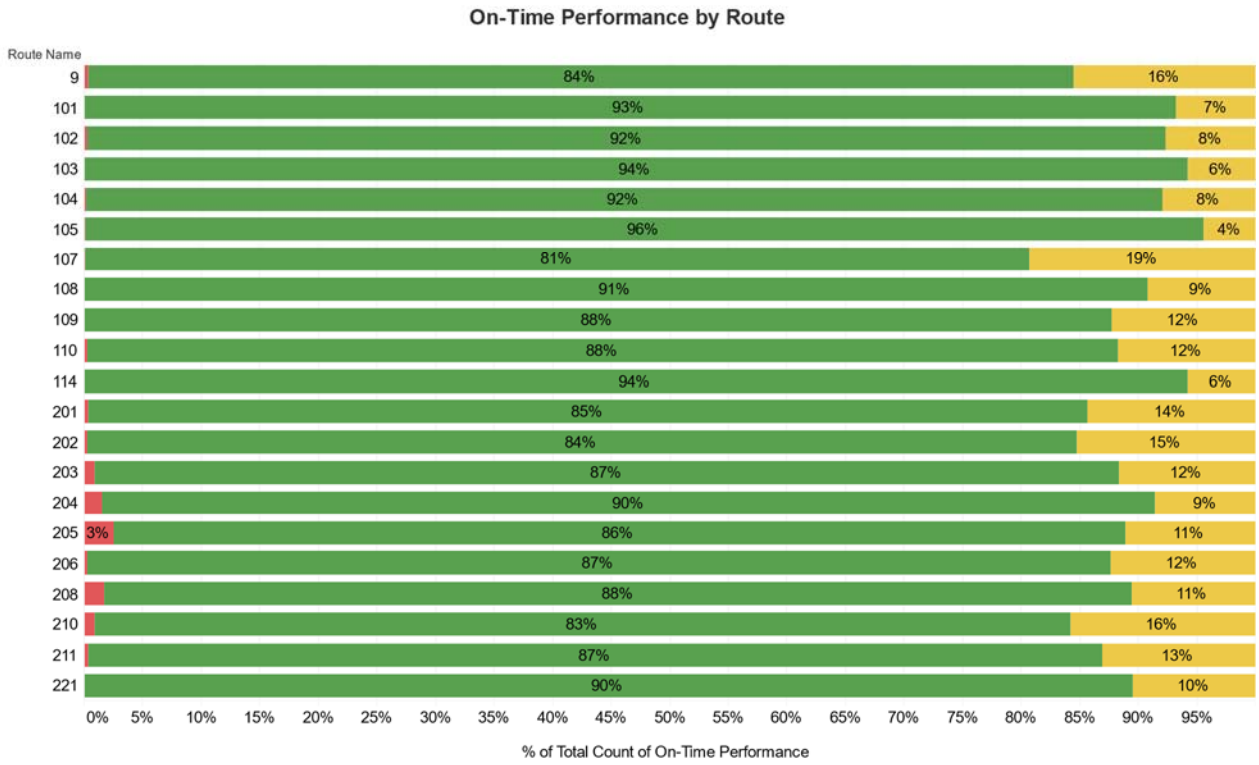

Figure 16: FY24 Route On-Time Performance

F. Stop Level Boarding and Alighting

With the introduction of Automatic Passenger Counters (APC) systems on all SRTA fixed route buses, it is now possible to monitor and report information relating to passenger activity at the stop level. This information is important to understand ridership trends and to analyze route performance to determine segments of high and low use. The SRTA fixed route network serves more than 1,100 stops. Stop use can be categorized to either a boarding stop or an alighting stop. Most stops (excluding the Fall River and New Bedford Terminals) tend to have significant differences between boarding and alighting activity and for that reason this report considers both measures of passenger activity. The Fall River and New Bedford Terminals have been excluded from the list because the purpose of this list is to illustrate locations in the SRTA system that generate the greatest demand for transit service.

The top ten stops for boardings are shown below in

Stop Name	Stop Id	Stop Rank	Average Daily Boardings	Total Boardings
New Bedford Market Basket	5060	1	228	75,848
Dartmouth Mall	5247	2	149	49,555
UMass Dartmouth Campus Center	5009	3	72	23,935
County St and Rivet St	5760	4	57	19,133
Acushnet Ave and Earle St	5141	7	29	9,767
Brock Ave and Rodney French Blvd	5257	6	30	10,083
Dartmouth Street Stop/Shop	5051	9	34	9,397
Mill St and Hill St	5432	8	29	9,533
Purchase St and Hillman St	5540	5	30	10,162
Rodney French Blvd and Welcome St	5018	10	31	8,843

Figure 17.

Stop Name	Stop Id	Stop Rank	Average Daily Boardings	Total Boardings
New Bedford Market Basket	5060	1	228	75,848
Dartmouth Mall	5247	2	149	49,555
UMass Dartmouth Campus Center	5009	3	72	23,935
County St and Rivet St	5760	4	57	19,133
Acushnet Ave and Earle St	5141	7	29	9,767
Brock Ave and Rodney French Blvd	5257	6	30	10,083
Dartmouth Street Stop/Shop	5051	9	34	9,397
Mill St and Hill St	5432	8	29	9,533
Purchase St and Hillman St	5540	5	30	10,162
Rodney French Blvd and Welcome St	5018	10	31	8,843

Figure 17: Top Ten Boarding Stops

The top ten stops for alightings are shown below in

Stop Name	Stop Id	Stop Rank	Average Daily Alightings	Total Alightings

New Bedford Market Basket	5060	1	228	65,435
Dartmouth Mall	5247	2	149	39,921
Bridge St and Fairhaven Commons	5886	3	1	14,815
County St and Rivet St	5363	4	7	14,805
UMass Dartmouth Campus Center	5009	5	72	14,709
Brock Ave and Ruth St	5440	6	4	14,519
Third District Court	5705	7	1	12,612
Umass Dartmouth Flag Poles	5352	8	16	11,890
Purchase St and Maxfield St	6081	9	3	11,091
Bedford Towers	5697	10	3	10,771

Figure 18

Stop Name	Stop Id	Stop Rank	Average Daily Alightings	Total Alightings
New Bedford Market Basket	5060	1	228	65,435
Dartmouth Mall	5247	2	149	39,921
Bridge St and Fairhaven Commons	5886	3	1	14,815
County St and Rivet St	5363	4	7	14,805
UMass Dartmouth Campus Center	5009	5	72	14,709
Brock Ave and Ruth St	5440	6	4	14,519
Third District Court	5705	7	1	12,612
Umass Dartmouth Flag Poles	5352	8	16	11,890
Purchase St and Maxfield St	6081	9	3	11,091
Bedford Towers	5697	10	3	10,771

Figure 18: Top Ten Alighting Stops

IV. Discussion

FY24 was a year of unprecedented changes. The year started out with steady ridership across the system. There were no significant changes in service coverage or service span that would have caused a significant increase or decrease in ridership; FY24 started as an average year. Two things changed in January: fare collection suspension and Sunday service. The suspension on fare collection went into effect on January 1 and almost immediately began increasing ridership. On January 28, Sunday service was introduced.

The effects of these two programs are undeniable: an additional 512,883 trips were taken between January 1, 2024 and June 30, 2024 compared to the same period from the previous year. By comparison, 58,046 additional trips were taken in the first half of the year compared to the prior year. The increase in ridership is largely attributed fare suspension. The service is much more attractive to a casual rider when no fare is collected. However, the addition of Sunday can't be denied as a pivotal development. Sunday accounts for 95,413 on the increased trips taken in FY24. Sunday volume is less than Saturday, however the service is a substantial step towards a more equitable transportation network. Increasing mobility options with a seven-day week operating schedule is beneficial to the community and to the region. The decision made by the SRTA Advisory Board was permanent, which gives residents and riders the certainty the service will endure.

Fare suspension has made the SRTA more attractive to the public and as a result, most routes experienced growth: the average increase in ridership for Q3 and Q4 was 20,199. Growth was not universal, a few routes lost ridership. Route 104 had fewer rides than in the previous year. The reduction in ridership is curious because Route 104 serves Durfee High School in the afternoon. Operators and supervisors report had frequently discussed higher passenger volumes on the route since the fare suspension. It is possible that ridership has decreased, however, also a possibility is that because of higher volumes of boardings, the automatic passenger counters are discarding data. Route 104 will continue to be monitored to determine the appropriate course of action.

Two routes have seen decreases in ridership in Q3 & Q4: Route 205 – South Central and Route 206 – Shawmut. The decrease is small, less than 500 fewer trips for both, but draws attention in a period of rapid growth in ridership and service expansion. Route 205 was identified as failing in the passengers per trip, a trend that has been occurring over several years. The route has been the subject of several service plans over the last decade, none of which have made an improvement in ridership on the route. Additional work should be done to examine whether an alternative alignment would make the route more attractive or if the route is no longer a necessary service and be considered for elimination. Route 206 is less concerning since it has not been identified as a failing in any category but was identified as a monitor route for passengers per trip.

Another major improvement occurred in FY24 – a dramatic improvement to on-time performance. In previous years, there was a persistent problem of trips starting prior to their schedule start time. Early departures are extraordinarily detrimental to the customer because the customer has a reasonable expectation that the bus will arrive at or after the scheduled time. An early departure can mean a lengthy wait without knowing that the bus has already passed by. Eliminating early departures was a priority for FY24 with a goal of fewer than 1% of all trips departing early. The goal was achieved; only three routes exceeded the threshold and none by more than 3%. Eliminating early departures was the first step towards improving system-wide on-time performance. By focusing first on what is completely within the control of the authority, the system was made more reliable. Continuing this effort to improve on-time performance will put the focus on route segment and trip travel times. This is an area of focus that could not be adequately addressed without first eliminating early departures. Adjusting route segment and trip travel times is an on-going process of evaluating past performance and making regular adjustments.

FY24 was a banner year for SRTA. The introduction of Sunday service greatly expanded mobility options for area residents; the suspension of fares made the service more attractive for all riders; and the improvement in on-time performance means the service is more reliable than ever. Continued focus on service improvements has made SRTA a much more effective transit service and the public recognizes it by riding more often.