

Comprehensive Operational Analysis and Service Optimization

Data Analysis and Evaluation of Existing Service

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1 INTRODUCTION

The Broward County Transit (BCT) Comprehensive Operational Analysis and Service Optimization Study (COA) is being completed to identify improvements designed to modernize the transit network, align the transit system with new and emerging travel patterns, expand existing and future mobility modes, incorporate new service delivery models, and integrate and enhance the effectiveness of the planned PREMO network. Service improvements identified as part of the COA will be grouped into phased transit plans for the near, mid, and long-term. Several work efforts are required in the process of completing a COA, including analyzing and evaluating the existing transit service.

WHAT IS THE 'DATA ANALYSIS AND EVALUATION OF EXISTING SERVICE' REPORT?

The Data Analysis and Evaluation of Existing Service Report builds on the Existing, Planned, and Future Conditions Report and the Mobility Needs and Market Assessment Report. The work completed in these reports includes demographic analysis and transit propensity, existing and planned transit services, land use, summaries of previous studies, transit supply and demand, and travel markets. The Data Analysis and Evaluation of Existing Service Report evaluates the performance of the transit network at various times and scales using a robust series of datasets, many of which were collected explicitly for the COA analytical efforts. Specifically, the Data Analysis and Evaluation of Existing Service Report investigates:

- Service productivity at the route and stop level using Automated Passenger Counter (APC) data collected from August 2023 to January 2024, with a focus on the comparison of ridership and service availability.
- Service efficiency evaluation using route geometry, stop spacing, and composition of service hours.
- Service reliability by measuring OTP by route, direction, and time of day using Automatic Vehicle Location (AVL) data from Fall 2023 (October 2023 to December 2023)
- Service cost effectiveness of routes using farebox, service, and cost data from October 2023
- Service area field observations with a focus on environmental factors that affect transit service performance, such as traffic conditions, turning movements, and pedestrian accessibility.

The Data Analysis and Evaluation of Existing Service Report takes a data-driven approach to evaluating transit service performance. Two companion reports delve into other components of the COA: The Existing, Planned, and Future Conditions Report, and the Mobility Needs and Market Assessment. These analyses, combined with input from BCT staff, stakeholders, existing riders, and potential riders will help identify unmet needs and opportunities and guide recommendations for service modifications. Service performance analysis will continue throughout the development of recommended service improvements to ensure each recommendation is supported by performance data, community characteristics, identified travel patterns and sound transit service planning principals.

KEY FINDINGS

The Data Analysis and Evaluation of Existing Service yielded valuable insights regarding the effectiveness of existing transit services. The analysis provided in this report reveals the transit networks strengths, weaknesses, opportunities, and threats, thereby providing the necessary information in planning for an improved future network. Several key findings resulting from this analysis are summarized below, with additional findings and context in the subsequent sections of the report.

- Transit service is utilized by riders in the places with the highest levels of service. The US 441 and Oakland Boulevard corridors are provided with elevated levels of service but also have elevated levels of ridership. The primary routes along these corridors (routes 18, 19, 72, and 441) produce 17,406 daily riders, making up approximately 22% of total system ridership on weekdays. On Saturdays, routes 18, 19, and 72 make up 25% of total system ridership (12,951 riders). On Sundays, routes 18, 19, and 72 make up 26% of total system ridership.
- Transit service is also utilized by riders at times with the highest levels of service. The 6 AM hour has the most trip start times of the day and has the highest ridership of the day (7,228 riders). Trips in the 3 PM and 4 PM hours also have elevated levels of ridership (6,870 and 6,799 riders, respectively). However, there are fewer transit trips operated during this time period. PM transit service does not peak until 5 PM, when transit ridership has already declined to 5,679 boardings. This could be one area where service could be shifted earlier to align with passenger demand.
- Another time of day that may respond well to additional service is the early morning hours. Very few trips are offered in the 4 AM hour, but there is still an average of 47 riders per vehicle trip. The 5 AM hour has an average of 64 boardings per vehicle trip. By comparison, the 10 PM, 11 PM, and 12 PM hours have an average of 30, 23, and 13 riders per vehicle trip. Should additional service be provided, earlier service may prove to be more productive than later service. Although the early morning hours are not at

capacity, the additional service would provide additional flexibility, and potentially entice more riders to use the service.

- OTP varied significantly by all recorded metrics (by route, by day of week, by direction, and by time of day) during Fall 2023. Sunday has the best OTP at 75.2%, followed by Saturday at 73.8% and weekday at 71.5%. However, high OTP on one day of week type does not guarantee high OTP on another day of week type. For example, Route 30's OTP is 76.6% on weekdays, 78.4% on Saturdays, and then drops to 65.1% on Sundays. One clear trend in OTP does occur throughout the day, where OTP degrades for all three days of week types early in the day and does not ameliorate until late in the day, around 6 PM. This trend is more pronounced during weekdays.
- Service cost effectiveness varies across routes. On weekdays, routes 15 and 23 (contracted routes) have the lowest farebox recovery ratio among Regular routes, with less than 5% (October 2023 sample dataset). Route 56, the other contracted regular route, does not collect fares, and therefore has a farebox recovery ratio of 0% by default. The top five Regular routes for farebox recovery ratio on weekdays are 19 (21.9%), 34, (21.3%), 72 (19.6%), 18 (19.3%), and 50 (17.0%). Routes 72 and 19 outperform other routes by significant margins on weekdays. Express service has an average of just 2.2% farebox recovery ratio, while the Breeze routes average 12.7%.
- Passenger loads approach high levels at certain times of day on certain routes (August 2023 to Jan 2024 sample APC dataset). Route 72 had the highest maximum load in the system, with 62 passengers during the 6 AM hour from US 441 to NW 31st Ave in the eastbound direction. Route 72 also had high maximum loads during the 2 PM, 3 PM, and 4 PM hours, with 50, 54, and 50 passengers, respectively. Other instances of potential capacity issues were observed on Route 441 during the 5 AM hour (51 passengers at Sunrise Boulevard in the southbound direction) and Route 30 at 2 PM (50 passengers on Peters Road at Florida's Turnpike in the eastbound direction). Overall, the 6 AM hour had the highest number of routes with high maximum loads, with 10 routes achieving a maximum load over 40. The current threshold for maximum loads is 1.5 times the number of seats on the vehicle.

NEXT STEPS FOR THIS INFORMATION

The Data Analysis and Evaluation of Existing Service Report is one of several technical reports produced for the COA. The Existing, Planned, and Future Conditions Report revealed several critical components of the operating environment that impact the existing and future transit networks. The Mobility Needs and Market Assessment Report highlighted the travel needs of the county and evaluated how BCT is meeting those needs. The Data Analysis and Evaluation of Existing Service Report assesses the performance of the existing network. These reports, combined with staff and public input, inform how the existing network should be modified to

fit the current and future needs of the community in the short, mid, and long-term recommendations.

REPORT STRUCTURE

This report is organized into following sections:

Fixed-Route Network Assessment: This section assesses the fixed-route network performance in terms of productivity, efficiency, reliability, and cost effectiveness. Performance is analyzed across multiple spatial and temporal dimensions. Performance at the route, corridor, and stop level are analyzed to reveal specific locations of high and low performance in the network.

Community Shuttle Network Assessment: This section assesses the community shuttle routes' performance using ridership, service hours, and demographic data.

Service Area Field Observations: This section includes information on field conditions and observations, including characteristics and operating conditions of bus movement and routing. Observed traffic conditions, street networks, and other community characteristics relevant to routing are also discussed.

2 FIXED ROUTE NETWORK ASSESSMENT

The fixed route network assessment is made up of four sections, each focusing on a different area of performance: Service Productivity, Service Efficiency, Service Reliability, and Service Cost Effectiveness. Service Productivity assesses ridership in terms of boardings, alightings, and passenger loads. Service Efficiency compares routes with a variety of metrics that show how direct, fast, and efficient the service is. The Service Reliability section reveals on-time performance (OTP) throughout the day for each route by direction. Finally, the Service Cost Effectiveness section evaluates routes in terms of total costs and costs per passenger using farebox data.

SERVICE PRODUCTIVITY

Service productivity measures are calculated to show the existing demand for services at the existing service levels. Productivity metrics can be calculated and analyzed at various aggregation levels (e.g., service type, route, and stop) and time (e.g., day of week type, time of day, hour of day, trip, and direction). This section begins with service productivity measures at the route level, showing how ridership varies by route by day of week. This analysis is followed by a more in-depth analysis of ridership by route by hour of day. The service productivity analysis concludes by analyzing ridership at the stop level.

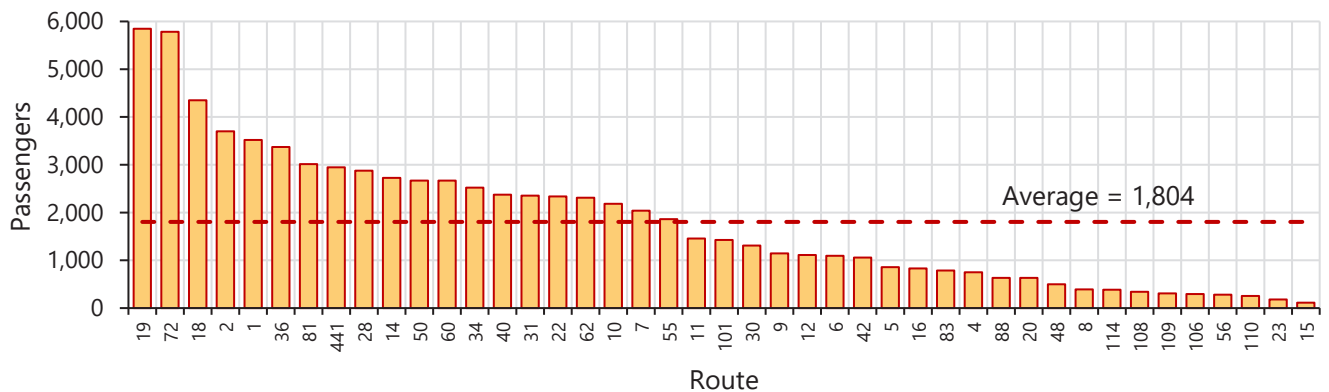
Ridership by Route

Ridership by day of week was analyzed using a sample dataset from October 2023. **Figure 1**, **Figure 2**, and **Figure 3** represent average daily ridership on a weekday, Saturday, and Sunday for all the routes, respectively. Average lines are shown in each figure for context. **Table 1** summarizes the findings from ridership by route analysis and are as follows:

- Ridership is higher on weekdays compared to Saturday and Sunday, shown in **Table 1**. Overall, systemwide ridership on Saturdays is approximately 64.7% of weekday ridership, while Sunday ridership is about 38.9% of weekday ridership. However, Express and Breeze routes operate on weekdays only, which make up about 2.0% and 5.6% of weekday ridership. Regular service makes up the remaining 92.3% of weekday ridership. Sunday regular service makes up 42.0% of weekday service, while Saturday regular service makes up 70.0% of weekday service.
- Routes 1, 2, 10, 18, 19, 22, 28, 36, 40, 72, and 81 each have above average daily ridership on weekdays, Saturdays, and Sundays. These 11 routes make up over half (50.7% of weekday ridership).

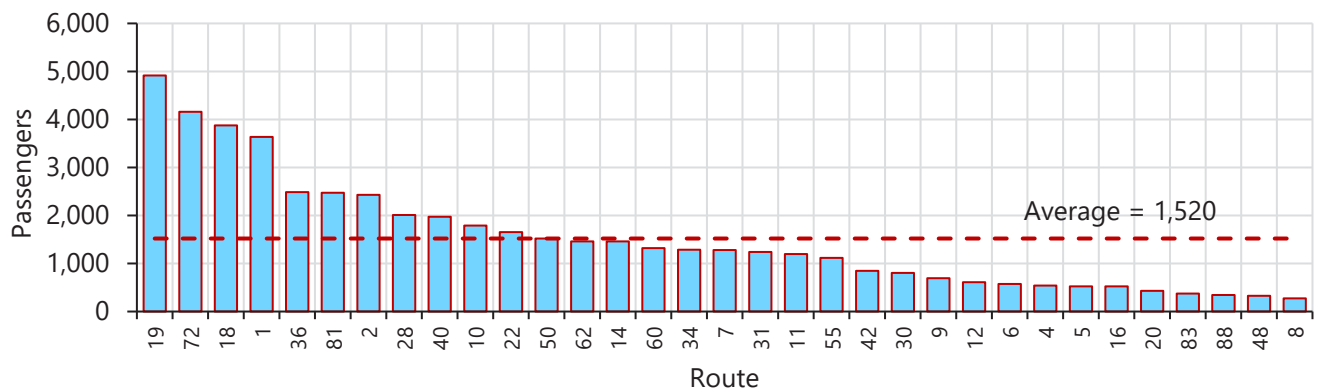
- Routes 19 and 72 experience much higher ridership than other routes in the transit network, with 5,847 and 5,784 daily riders, respectively. Together, routes 19 and 72 make up approximately 15% of the total weekday ridership (11,630 daily riders). This is more ridership than the lowest 19 routes combined.
- Routes 18, 19, 72, and 441 comprise the US 441 and Oakland Boulevard services and together carry 17,406 daily riders on weekdays (22% of total ridership). On Saturdays, routes 18, 19, and 72 carry 12,951 riders (25% of total ridership). On Sundays, routes 18, 19, and 72 carry 7,855 riders, (26% of total ridership).

Figure 1. Weekday Ridership by Route

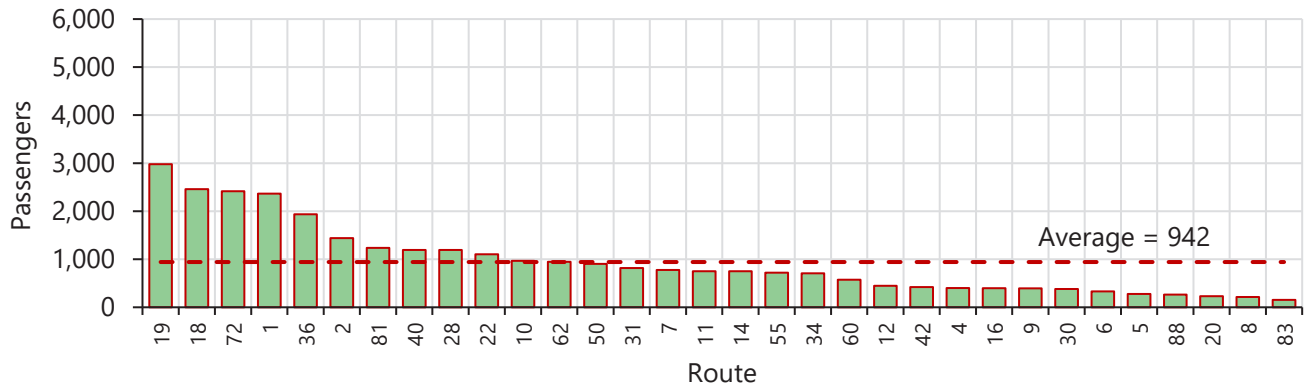


Source: BCT Monthly Ridership Report (October 2023)

Figure 2. Saturday Ridership by Route



Source: BCT Monthly Ridership Report (October 2023)

Figure 3. Sunday Ridership by Route

Source: BCT Monthly Ridership Report (October 2023)

Table 1. Weekday Ridership by Service Type

Route	Total Ridership			Average Ridership per Route		
	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
Regular	71,622	50,174	30,144	1,989	1,520	942
Express	1,577	-	-	315	-	-
Breeze	4,371	-	-	2,186	-	-
TOTAL	77,570	50,174	30,144	1,804	1,520	942

Average = 942

Source: BCT Monthly Ridership Report (October 2023)

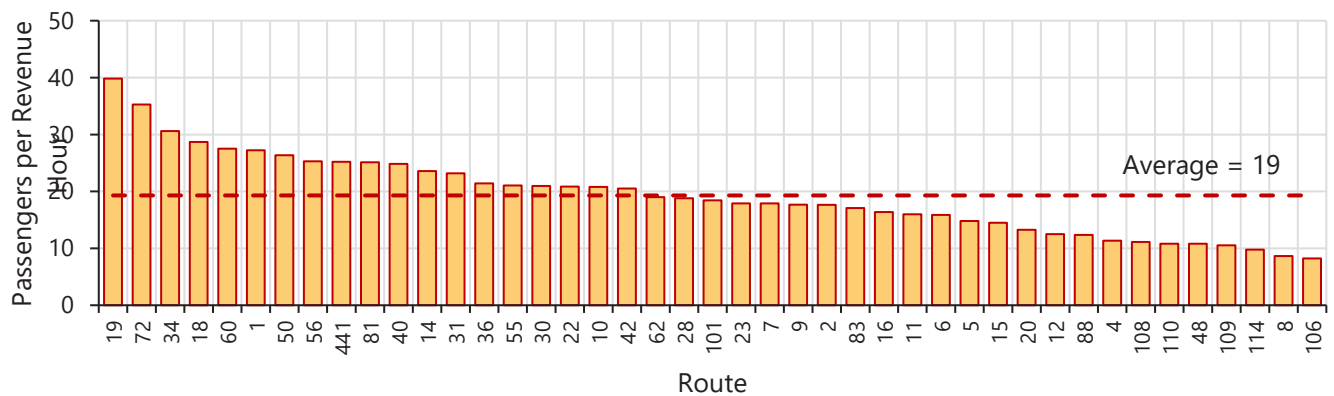
Ridership per Revenue Hour by Route

The previous section showed the distribution of ridership by route. However, the resources required to operate each route also varies. Normalizing ridership by the service required to operate the route gives additional insight into productivity. Here, ridership was divided by revenue hours to show the relative productivity of each route for weekday, Saturday, and Sunday in **Figure 4**, **Figure 5**, and **Figure 6** respectively. **Table 2** shows the average by day of week and type of service. Additional operating statistics are available in the Appendix in **Table 21** (weekday) **Table 22** (Saturday), and **Table 23** (Sunday). A companion metric, ridership per revenue mile, is also available in the **Appendix** in **Figure 50** (weekday), **Figure 51** (Saturday), and **Figure 52** (Sunday).

- The system-wide average passengers per revenue hours is 19 on weekdays, 17 on Saturdays, and 16 on Sundays. Passengers per revenue hour varies by route type as well, with Breeze and Regular routes outperforming Express service by large margins.

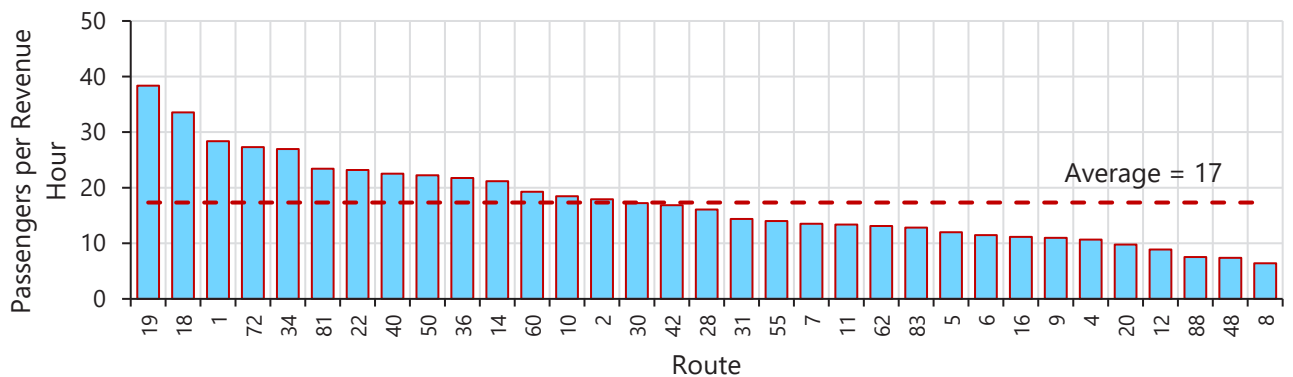
- Routes 1, 10, 14, 18, 19, 22, 34, 36, 40, 50, 60, 72 and 81 have consistently greater passengers per revenue hour irrespective of weekdays or weekends.
- Routes 18 and 1 have higher Saturday productivity compared to weekday. This is likely because Breeze service does not operate on weekends, and therefore passengers that use the Breeze service on weekdays use the Regular routes on weekends. Similarly, Route 19 is as productive on Saturdays as it is on weekdays. Interestingly, the only other route (aside from routes 18 and 1) that has higher Saturday productivity compared to weekday is Route 22.
- Routes 8, 48, 4, 88, 12, and 20 perform poorly compared to other routes in terms of passengers per hour, with less than 15.

Figure 4. Weekday Passengers per Revenue Hour

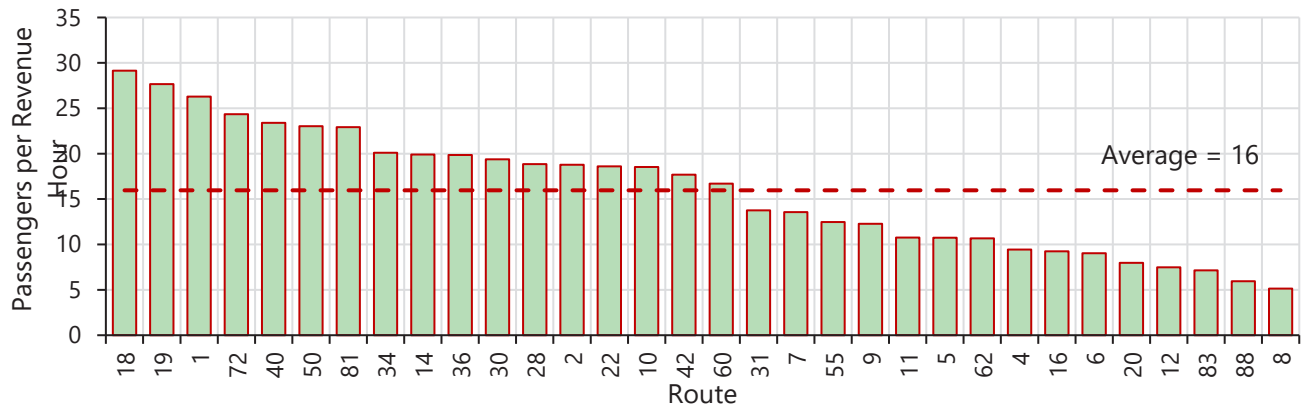


Source: BCT Monthly Ridership Report (October 2023)

Figure 5. Saturday Passengers per Revenue Hour



Source: BCT Monthly Ridership Report (October 2023)

Figure 6. Sunday Passengers per Revenue Hour

Source: BCT Monthly Ridership Report (October 2023)

Table 2. Passengers per Revenue Hour by Day of Week

Route	Weekday	Saturday	Sunday
Regular	20	17	16
Express	10	-	-
Breeze	22	-	-
TOTAL	19	17	16

Source: BCT Monthly Ridership Report (October 2023)

Ridership and Population Served

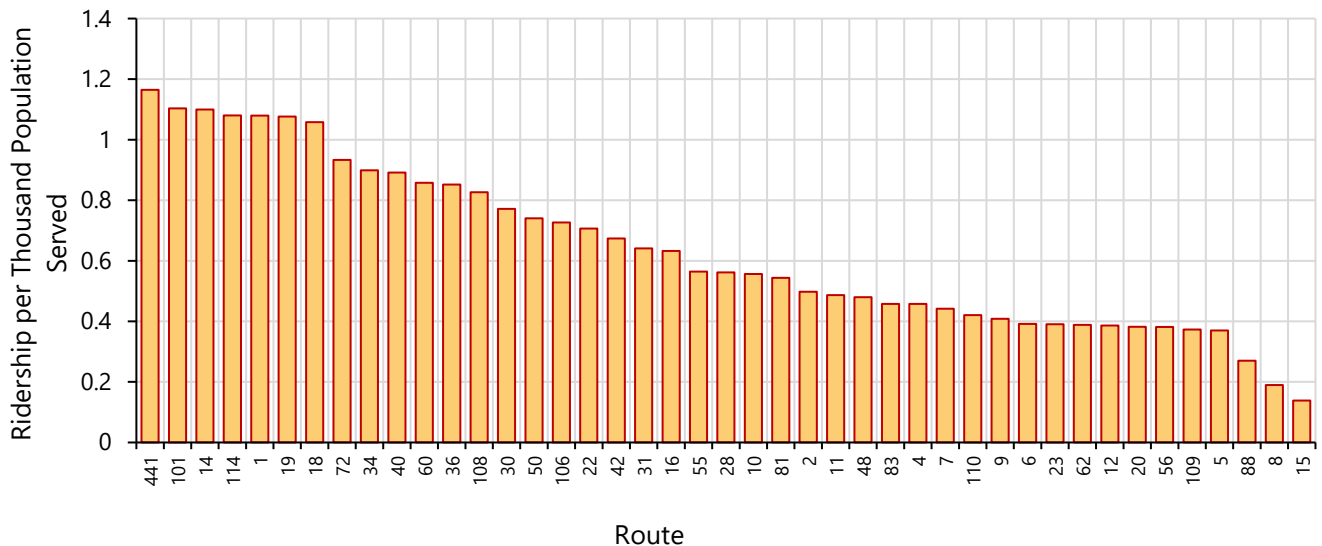
As documented in the Mobility Needs and Market Assessment Report, ridership is driven by the population that has access to service. Ridership, however, is not always produced at the same rate across populations. Here, an analysis of ridership per population served is conducted to show how ridership performs relative to access using 2022 American Community (ACS) 5-Year data estimates. Specifically, access is quantified by multiplying the number of trips of each route by the population within 0.25 miles around each route. Ridership is then standardized by access to create a metric that shows riders per population served. This process was utilized and repeated for population (**Figure 7**) low-income population (**Figure 8**), minority population (**Figure 9**), and zero-vehicle households (**Figure 10**). Observations from the ridership per population served are identified below:

- **Figure 7** highlights that Breeze routes (101 and 441), along with routes 14, 1, 19, and 18, demonstrate higher ridership relative to the total population served. This indicates that these routes outperform other routes by turning more of the population into transit riders. Conversely, routes 15, 8, and 88 exhibit lower utilization, indicating they

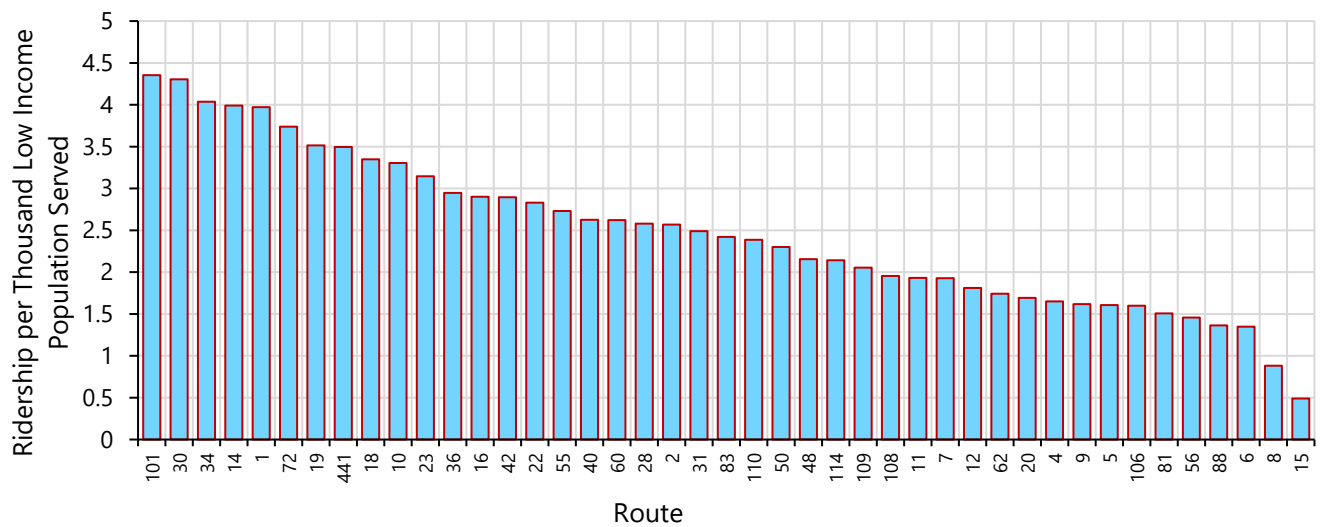
are less effective at turning the nearby population into transit riders. One such explanation would be that routes with more frequent service tend to attract more riders than routes with less frequent service.

- Routes 101, 30, and 34 exhibit the highest ridership per low-income population served, indicating that the routes are particularly well-utilized by individuals with lower incomes. These routes serve areas with a higher concentration of low-income residents or provide essential connections to employment, education, or other vital services for this demographic.
- In **Figure 9**, routes along US 1 in Broward County (101, 1, and 10) demonstrate higher ridership per minority trips, suggesting that these routes are more heavily utilized by the minority populations nearby.
- **Figure 10** shows the distribution of routes that perform well in terms of serving zero-vehicle households. Routes 34, 23, 19, 18 and 441 serve many zero vehicle households that also utilize the transit service offered.

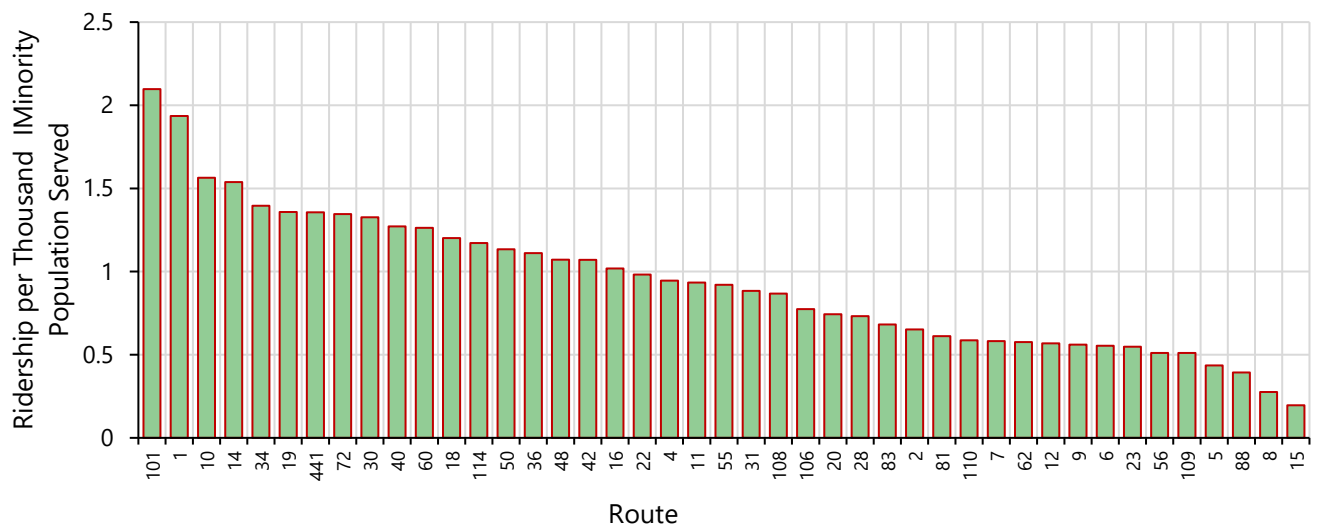
Figure 7. Ridership per Population Served by Route



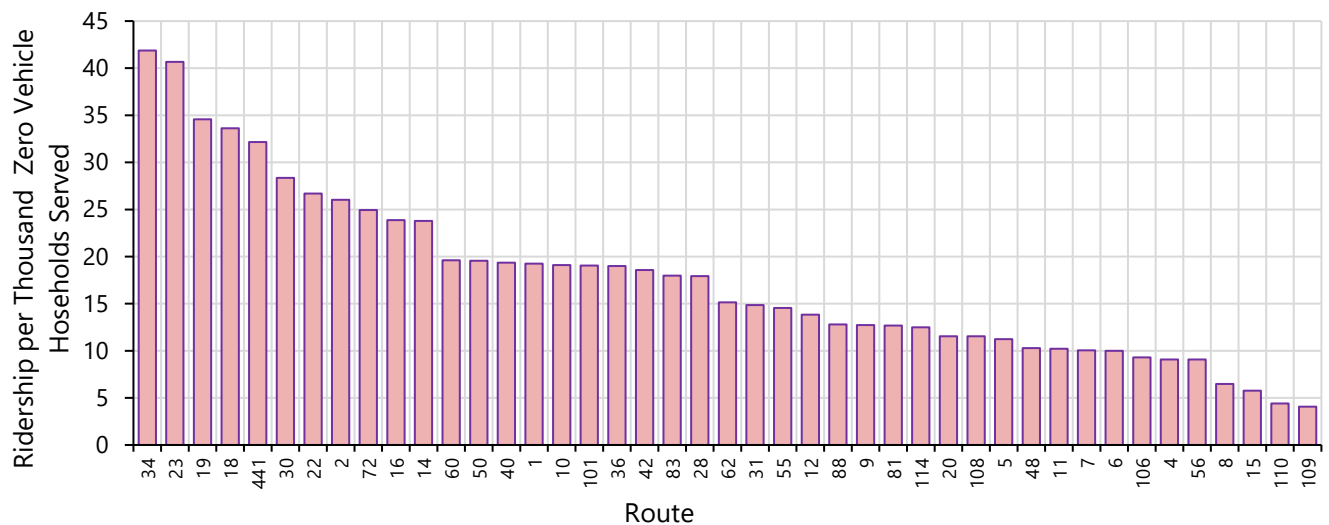
Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

Figure 8. Ridership per Low-Income Population Served by Route

Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

Figure 9. Ridership per Minority Population Served by Route

Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

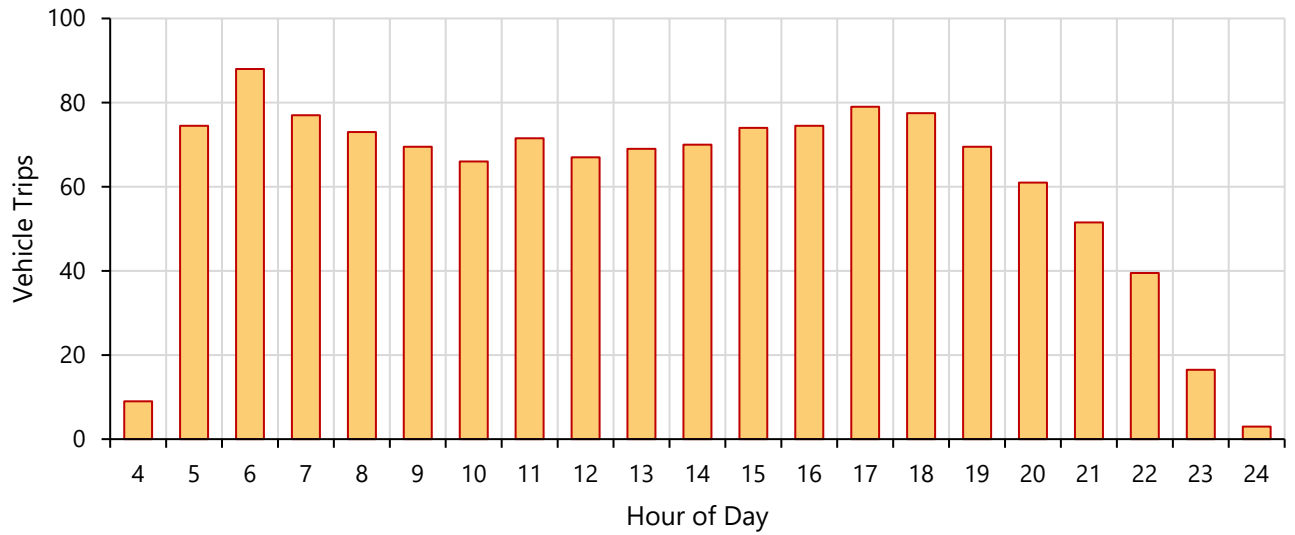
Figure 10. Ridership per Zero-Vehicle Households Served by Route

Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

Vehicle Trips by Time of Day

Figure 11 shows the bus activity by hour using trip start time data from the Fall 2023 APC dataset. The recorded hours range from 4:00 AM to 12:00 AM, with each hour displaying the number of bus trips. **Table 3** shows the service levels by route and hour of the day. Key observations include:

- **Figure 11** displays a clear peak in vehicle trips during the morning rush hour, with a sharp increase from 4:00 AM to 6:00 AM, reaching a peak of 88 trips, indicating heightened supply for commuter activity. Throughout the midday hours, from 10:00 AM to 3:00 PM, trip frequencies stabilize around 66 to 70 trips.
- **Table 3** shows Routes 1, 2, 18, 19 and 22 have higher frequencies throughout the day, gradually decreasing towards late night.
- Routes 12, 14, 18, 30 and 101 exhibit a pattern of higher frequencies during peak hours, especially in the morning, with a slight dip during midday before increasing again in the late afternoon while Routes 20 and 23 have lower frequencies compared to others, with some variation throughout the day but consistent service.

Figure 11. Total Vehicle Trips by Hour of Day

Source: Fall 2023 APC BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

Table 3. Weekday Service One-Way Trips by Hour of the Day

Hour	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Route	Early	AM Peak				Midday			Afternoon			PM Peak			Evening			Night			
Regular																					
1	0.5	3.5	3.0	2.0	2.5	2.5	2.5	2.5	2.5	2.0	3.0	2.5	2.5	3.0	2.0	2.5	2.5	2.0	2.0	1.5	
2		5.5	2.5	2.5	2.5	2.5	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.0	2.0	2.0	3.0	2.0	2.0	0.5
4		1.0	2.0	1.5	2.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	1.5	1.5	0.5		
5		0.5	1.0	1.5	1.0	1.0	1.0	1.5	1.5	1.0	2.0	1.0	1.0	1.5	1.5	1.0	2.0	1.0			
6		2.0	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	1.0	1.0	1.0	1.5	1.5	1.0	1.0	2.0	0.5	0.5	
7	0.5	2.0	2.5	2.0	2.5	2.0	2.0	2.5	2.0	2.5	2.5	2.0	2.5	2.0	2.0	1.5	2.0	2.0	2.0		
8			0.5	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.0	1.5	0.5		
9		1.0	2.5	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
10		3.0	2.0	2.5	2.5	1.5	2.0	2.0	1.5	2.0	2.5	2.0	2.0	2.0	2.0	1.5	2.0	2.0	2.0	1.0	
11	0.5	1.5	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.5	1.0	0.5	
12	0.5	2.5	2.0	2.0	2.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	1.0	1.5	1.0		
14	0.5	2.5	3.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	2.5	2.0	2.5	2.0	2.5	3.0	2.5	2.0	2.5	0.5	
15		1.0	0.5	0.5	1.0	1.0					1.0	1.0		1.0	1.0						
16		1.0	1.5	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.5	1.0	1.5	1.5	1.5	0.5		
18		3.0	3.0	3.0	2.0	3.0	3.5	3.0	3.5	3.0	3.0	3.0	3.0	3.0	3.5	3.0	2.0	2.0	2.0	1.5	0.5
19	1.5	3.0	3.0	3.0	3.0	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.0	2.5	3.0	3.0	2.0	2.0	2.5	2.0	1.0
20	0.5	0.5	1.5	1.0	1.5	1.0	1.0	1.5	1.0	1.5	1.0	1.0	1.5	1.0	1.5	1.0	1.0	0.5			
22	0.5	2.5	2.5	3.0	2.5	2.5	3.0	2.5	3.5	2.0	2.5	3.5	2.5	2.0	3.5	2.0	2.0	1.0	2.0	1.0	
23			1.5	1.0	1.5	1.0						1.5	1.0	1.5	1.5						
28		2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.5	
30			2.5	2.0	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.0	2.0	1.5	2.0	2.0	1.5	1.0	1.0		
31		1.5	2.0	2.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	1.0	0.5	
34		2.5	3.0	3.0	2.5	2.5	2.0	2.0	1.5	1.5	2.0	2.5	2.5	3.0	2.0	1.0	2.0	1.0	1.0		
36		3.0	3.0	2.5	2.5	2.5	2.5	3.0	3.0	2.5	2.5	2.0	2.5	2.5	2.5	2.5	2.5	2.0	2.0	0.5	
40		1.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.0	1.5	2.0	1.5	2.0	1.0	1.5		
42		1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.0	1.0	1.5	1.0	1.5	1.5	1.5	0.5		
48		1.0	2.0	1.5	1.5	2.0	2.0	1.5	1.5	2.0	1.5	1.5	2.0	2.0	1.5	1.5	2.0				
50		1.5	2.5	1.5	2.0	2.5	1.5	2.5	2.0	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	1.5	1.5		
55	1.0	2.0	1.5	2.0	1.5	1.5	2.0	2.0	2.0	1.5	1.5	2.0	2.0	1.0	2.0	2.0	2.0	1.5	1.5		
56			0.5	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0						
60		2.0	2.5	2.0	1.5	2.0	2.5	2.0	2.0	2.0	1.5	2.0	1.5	2.0	2.0	2.0	1.5	1.5	1.0		
62	0.5	2.0	2.0	1.5	2.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	1.0		
72	0.5	3.5	3.5	3.0	3.0	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.5	2.5	2.0	1.5	1.0
81	0.5	2.0	2.0	2.0	2.0	2.0	1.5	2.0	2.0	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.0	1.0	
83		1.0	1.5	1.0	1.5	1.5	1.5	1.5	1.0	1.5	1.5	1.0	1.5	1.0	1.5	1.0	2.0				
88		0.5	1.5	1.0	1.0	1.5	1.0	1.5	1.0	1.0	1.5	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5		
Breeze																					
101	0.5	2.5	2.5	2.5	2.5	2.0	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0	2.5	1.5				
441	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.5	2.5	2.0					
Express																					
106		2.0	2.5	2.0	0.5							1.0	2.0	2.0	2.0	1.5	0.5				
108		1.0	3.0	1.0								2.0	2.0	2.0	2.0	1.0	0.5				
109		0.5	1.5	2.0	0.5								0.5	1.5	0.5						
110		1.0	1.5	1.5								1.0	1.0	1.5	0.5						
114		2.0	2.5	1.0	0.5							1.0	1.5	2.0	3.0	1.5	0.5				

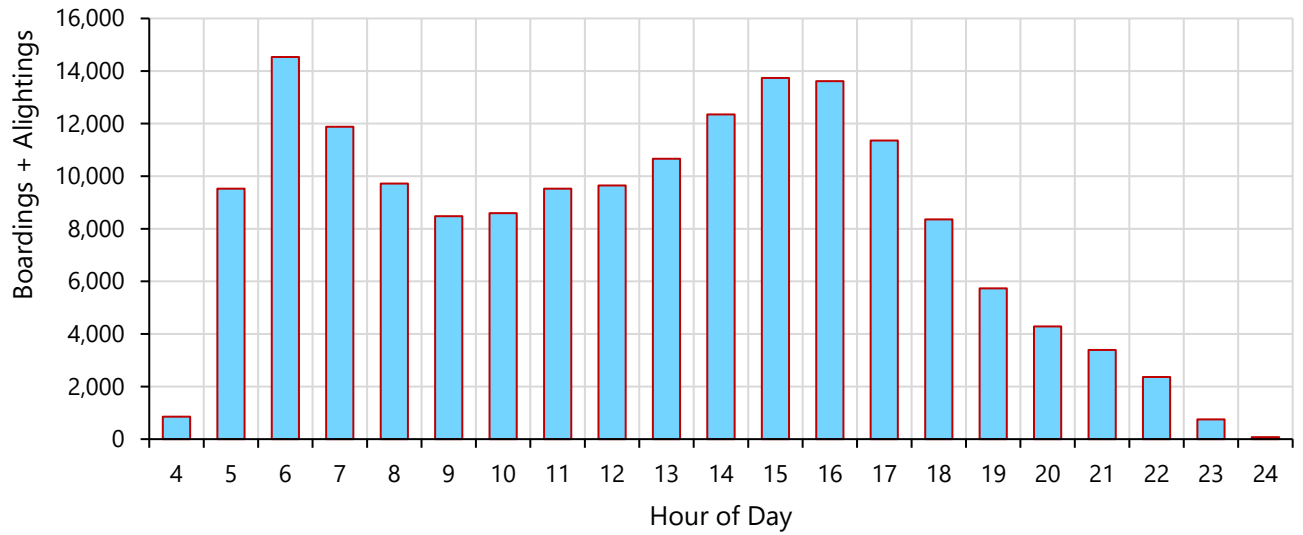
Source: APC dataset (August 2023 to January 2024)

Ridership by Time of Day

Lower  Higher

Analyzing transit ridership across various times of the day is essential for optimizing service levels to match ridership levels. **Figure 12** summarizes total weekday passenger activity (boardings + alightings) by trip start time hour of day using the Fall 2023 APC dataset. **Table 4** also shows ridership by hour of day but is disaggregated at the route level. Findings for this analysis are as follows:

- Ridership peaks during the 6 AM hour, with 7,228 boardings, making up about 8.5% of total ridership throughout the day. The next highest ridership hour is 3 PM, with 6,870 boardings (8.2% of total ridership), and then 4 PM with 6,799 boardings (8.1% of total ridership).
- The 10 PM, 11 PM, and 12 AM hours account for just 1,591 daily ridership, which is approximately 2.2% of daily ridership.
- Routes like 19 and 72 exhibit high ridership throughout the day. Ridership peaks on Route 19 at 4 PM with 564 boardings. Ridership peaks on Route 72 at 3 PM with 518 boardings.
- Routes 1, 2, 6, 9, 10, 11, 14, 16, 18, 20, 28, 30, 31, 36, 40, 50, 55, 60, 62, 72, and 81 appear to have stronger commuter passengers because they experience higher ridership during morning and evening rush hours (typically around 7-9 AM and 4-6 PM).

Figure 12. Weekday Boardings + Alightings by Hour of Day

Source: APC dataset (August 2023 to January 2024)

Table 4. Weekday Boardings + Alightings by Hour of the Day by Route

HOUR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ROUTE	EARLY		AM PEAK			MIDDAY			AFTERNOON			PM PEAK			EVENING			NIGHT			
REGULAR																					
1	11	407	648	399	429	392	431	436	424	350	722	543	585	568	280	313	340	271	216	103	
2		642	614	532	560	477	408	524	523	453	672	621	573	477	299	282	234	201	116	54	4
4		33	108	92	134	113	47	102	58	131	71	180	86	158	63	88	52	46	11		
5		57	127	170	118	82	70	124	99	71	179	107	111	163	106	48	76	18			
6		237	171	167	182	169	81	112	183	169	152	143	202	176	157	66	55	55	2	2	
7	21	134	401	329	251	235	225	237	207	256	453	390	441	253	192	111	105	67	46		
8			34	53	69	62	29	50	64	65	86	56	87	61	42	32	17	17	7		
9		73	360	145	115	111	118	116	97	200	249	140	198	126	90	69	70	44			
10		186	326	430	389	205	332	324	208	390	460	515	349	359	286	188	148	153	109	37	
11	42	223	191	292	133	114	205	122	137	298	195	260	334	190	113	160	75	95	46	8	
12	0	85	157	166	149	135	81	168	65	154	97	208	116	176	63	98	25	43	27		
14	45	362	603	307	329	274	392	271	333	335	416	405	511	403	308	232	143	126	100	15	
15		31	34	17	41	19					37	35		22	12						
16		65	191	111	129	105	51	82	89	58	137	168	123	151	65	68	41	34	11		
18		589	709	656	349	495	530	459	560	506	632	618	660	596	538	330	220	249	242	89	21
19	164	640	846	901	758	599	603	791	859	912	896	989	1129	786	660	460	308	312	233	112	27
20	24	25	115	103	100	69	60	99	68	96	88	93	150	82	104	52	35	14			
22	36	196	296	451	307	322	457	317	377	238	313	519	335	310	384	155	203	84	123	25	
23			57	54	63	30						68	43	54	51						
28		403	467	464	372	308	310	333	380	426	512	547	508	474	295	149	157	178	81	73	
30			280	254	151	146	94	147	146	204	351	209	230	141	165	117	54	37	45		
31		264	426	392	236	195	241	303	310	439	476	287	266	338	207	133	114	85	45	17	
34		363	545	393	255	259	209	265	231	202	408	456	457	366	229	95	139	65	66		
36		436	704	439	433	384	399	527	535	520	640	526	674	537	344	258	207	176	139	37	
40		239	420	382	368	288	258	250	287	353	394	537	413	273	247	140	167	80	75		
42		139	230	185	94	143	138	104	174	202	128	171	204	219	109	102	92	62	14		
48		31	105	86	60	77	73	47	57	78	72	86	109	96	46	36	32				
50		291	604	342	335	327	207	357	331	383	325	512	497	402	271	221	166	103	68		
55	42	181	238	409	219	187	207	224	255	221	255	385	362	138	258	134	88	59	68		
56			10	22	67	32	28	67	36	39	60	31	25	36	8						
60		341	557	382	207	294	409	426	459	481	279	560	369	349	290	151	96	68	43		
62	53	291	457	291	300	236	211	231	206	316	353	301	406	317	251	160	132	81	35		
72	78	649	970	809	776	631	811	824	800	870	963	1037	1011	878	629	428	312	335	259	91	25
81	97	462	449	425	353	343	275	415	421	471	324	547	386	556	274	284	162	197	84	90	
83		95	174	107	128	96	83	94	67	107	151	104	172	110	107	49	54				
88		9	159	79	70	87	50	85	58	65	135	84	148	70	52	47	52	37	51		
BREEZE																					
101	11	219	319	268	216	137	164	167	161	201	237	286	266	222	185	166	88				
441	228	584	675	464	408	304	311	325	382	402	434	579	567	406	428	190					
EXPRESS																					
106		137	110	39	14							82	129	52	37	35	4				
108		100	193	65								166	87	69	26	21	14				
109		49	179	114	24								71	88	24						
110		68	131	58								65	92	68	17						
114		189	146	38	27							123	136	42	45	69	11				

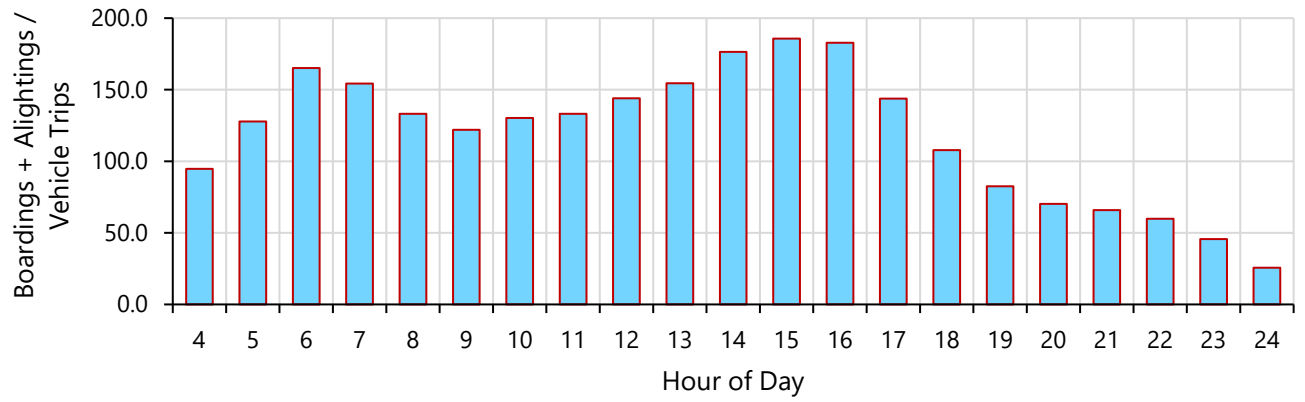
Source: APC dataset (August 2023 to January 2024)

Lower  Higher

Ridership per Vehicle Trip by Time of Day

Transit services that operate more frequently are more attractive than transit services that operate less frequently. Higher frequency service, therefore, tends to attract more riders. To account for this relationship, ridership per trip can be analyzed by dividing the passenger activity (boardings + alighting) by the number of vehicle trips operated. Analyzing ridership on a per vehicle trip basis also helps identify areas and times where service is less efficient than others. **Figure 13** shows the weekday number of boardings + alighting normalized by trips to show the productivity by hour of day systemwide. For a more detailed analysis, **Table 5** shows weekday boardings + alighting per vehicle trip by hour of day by route. Key observations include:

- The results of the analysis show that the most productive hours of the day are during the PM peak. The 2 PM, 3 PM, and 4 PM hours have an average of 176, 186, and 183 boarding + alighting per hour. The 6 AM hour is the fourth most productive, with 165 boardings + alightings per trip. The 6 AM hour has the greatest number of total boardings + alighting, at 14,536, but also has the greatest number of vehicle trips. This suggests that more PM peak service would be more productive than more AM peak service.
- The 4 AM hour is much more productive in terms of riders per vehicle trip compared to overall ridership. Ridership per trip is lower towards the late hours of service, however, from the 8 PM hour until the end of service during the 12 PM hour. This relationship suggests that earlier service would yield more passengers than later service.
- Route 19 and Route 72 have the highest ridership in the system but also have the highest productivity in the system, each with an average of 119 boardings and alightings per trip. On Route 19, the most intense hours of productivity in terms of boardings and alightings occur at 4 PM (188), 3 PM (165) and 6 PM (157). On Route 72, the most intense productivity occurs at 3 PM (173), 4 PM (169), and 2 PM (161). Route 441 also experiences very high productivity, but it occurs at the 6 AM hour with 169 boardings + alightings per trip. When considering direction, Route 19 is has higher productivity in the northbound in the AM peak compared to southbound, while the PM peak is high in both direction. Route 72 has higher productivity in the eastbound direction in the AM peak, and higher westbound productivity in the PM peak.
- During the 3 PM hour, 11 routes experience an extraordinarily high level of boardings + alightings per vehicle trip over 120 (routes 2, 10, 11, 19, 28, 36, 50, 60, 72, 81, and 441).
- Routes 56, 15, 8, 23, and 48 have consistently low riders per trip, with less than 40 boardings + alightings per trip across every hour of service.

Figure 13. Weekday Boardings + Alightings / Vehicle Trips by Hour of Day

Source: APC dataset (August 2023 to January 2024)

Table 5. Weekday Boardings + Alightings / Vehicle Trips by Hour of Day

hour	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
route	early		am peak			middyay			afternoon			pm peak			evening			night			
regular																					
1	21	116	216	199	172	157	172	174	169	175	241	217	234	189	140	125	136	135	108	68	
2		117	246	213	224	191	204	210	209	181	269	248	229	191	149	113	117	67	58	27	9
4		33	54	61	67	57	47	51	58	65	71	90	86	79	63	44	34	31	22		
5		113	127	113	118	82	70	83	66	71	89	107	111	108	71	48	38	18			
6		119	171	167	122	112	81	112	122	113	152	143	202	118	105	66	55	28	4	5	
7	42	67	160	164	101	117	113	95	104	102	181	195	176	127	96	74	52	33	23		
8			67	53	46	41	29	33	43	43	58	56	58	41	28	22	17	12	13		
9		73	144	145	115	111	118	116	97	134	166	140	198	126	90	69	70	44			
10		62	163	172	155	137	166	162	139	195	184	258	175	180	143	125	74	77	55	37	
11	84	149	191	194	133	114	137	122	137	198	195	260	223	190	113	106	75	64	46	15	
12	0	34	79	83	74	67	81	84	65	77	97	104	116	88	63	49	25	29	27		
14	89	145	201	154	164	137	131	136	166	167	167	203	204	201	123	77	57	63	40	29	
15		31	68	34	41	19					37	35		22	12						
16		65	127	111	86	70	51	55	59	58	92	112	123	101	65	46	27	23	23		
18		196	236	219	175	165	152	153	160	169	211	206	220	199	154	110	110	125	121	59	41
19	110	213	282	300	253	240	241	264	286	304	299	330	376	314	220	153	154	156	93	56	27
20	48	51	77	103	67	69	60	66	68	64	88	93	100	82	69	52	35	27			
22	73	79	118	150	123	129	152	127	108	119	125	148	134	155	110	78	102	84	62	25	
23			38	54	42	30						46	43	36	34						
28		161	233	232	186	154	155	167	190	213	256	273	254	237	147	74	79	59	41	29	
30			112	127	75	73	63	73	73	82	140	105	115	94	83	59	36	37	45		
31		176	213	196	157	130	121	152	155	220	238	191	178	169	103	66	57	42	45	35	
34		145	182	131	102	103	105	133	154	135	204	183	183	122	115	95	69	65	66		
36		145	235	176	173	153	160	176	178	208	256	263	270	215	138	103	83	88	69	75	
40		159	168	153	147	144	129	125	143	176	157	215	207	182	123	93	84	80	50		
42		139	153	123	94	95	92	104	116	135	128	171	204	146	109	68	62	41	27		
48		31	53	57	40	38	36	31	38	39	48	57	54	48	31	24	16				
50		194	242	228	168	131	138	143	166	191	216	256	249	201	135	110	83	69	45		
55	42	90	159	205	146	125	103	112	127	147	170	192	181	138	129	67	44	40	45		
56			21	22	33	32	28	34	36	39	30	31	25	18	8						
60		171	223	191	138	147	164	213	230	240	186	280	246	175	145	76	64	45	43		
62	106	146	229	194	150	118	106	115	137	158	177	200	203	158	126	80	66	40	35		
72	157	185	277	270	259	252	270	275	267	290	321	346	337	293	210	143	125	134	129	61	25
81	195	231	224	213	176	172	183	208	210	235	216	274	257	278	183	142	108	99	84	90	
83		95	116	107	85	64	55	63	67	72	101	104	115	110	71	49	27				
88		19	106	79	70	58	50	57	58	65	90	84	99	70	52	31	52	37	34		
breeze																					
101	23	88	128	107	86	68	66	67	64	80	118	143	133	111	93	66	59				
441	228	292	337	232	204	152	156	163	191	201	217	289	283	271	171	95					
express																					
106		68	44	20	28							82	64	26	18	23	8				
108		100	64	65								83	44	35	13	21	27				
109		98	119	57	47								141	59	48						
110		68	87	39								65	92	46	34						
114		94	58	38	54							123	91	21	15	46	21				

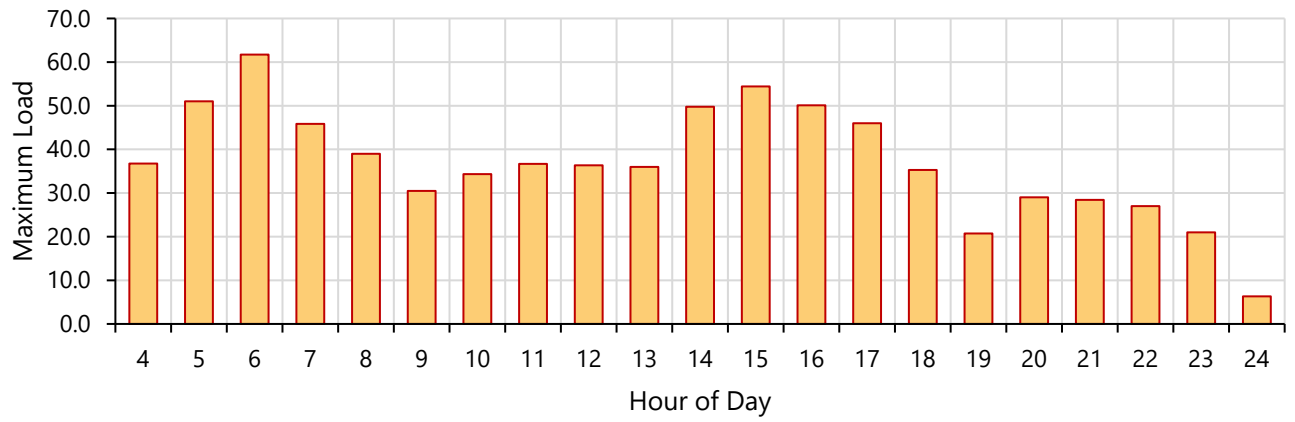
Source: APC dataset (August 2023 to January 2024)

Lower  Higher

Maximum Load by Time of Day

Passenger loads reflect the utilization of service, revealing potential capacity concerns by showing how many passengers are on board at a given time. Passenger load data were calculated using the Fall 2023 APC data collection effort and shown below in **Figure 14. Table 6** shows the maximum observed load on each route by hour of day. Average load can be found in the Appendix in **Table 24**. Findings for maximum load are as follows:

- The highest maximum load observed occurred in the 6 AM hour on Route 72 with 62 passengers in the eastbound direction at the intersection of Oakland Park Boulevard and US 441. Max loads are primarily at or above 50 passengers until the route reaches I-95.
- The 5 AM hour had the second highest load, with 51 passengers on Route 441 in the southbound direction north of Sunrise Boulevard. Maximum loads are over 40 passengers from Commercial Boulevard south to I-595.
- Routes 15 and 56 had the lowest maximum loads, each with seven. Routes 15 and 56 were the only two routes in the network with daily maximum loads under 10.
- The 6 AM hour has the highest number of routes with a maximum load over 40, with 10 routes total.
- Maximum loads over 40 occur on these routes during these hours:
 - Route 1 at 6 AM northbound and 2 PM southbound
 - Route 14 at 6 AM northbound
 - Route 19 at 5 AM southbound, 6 AM northbound, 3 PM northbound and southbound, 4 PM northbound, and 5 PM northbound
 - Route 28 at 6 AM eastbound
 - Route 31 at 6 AM southbound
 - Route 34 at 6 AM eastbound
 - Route 36 6 AM eastbound
 - Route 40 at 6 AM eastbound
 - Route 72 at 5 AM eastbound, 6 AM eastbound, 7 AM eastbound, 2 PM westbound, 4 PM westbound, and 5 PM westbound
 - Route 441 at 5 AM southbound, 6 AM southbound, 3 PM northbound, 4 PM northbound, and 5 PM southbound

Figure 14. Maximum Load by Hour of Day

Source: APC dataset (August 2023 to January 2024)

Table 6. Weekday Maximum Load by Route by Hour

HOUR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ROUTES	EARLY AM	AM PEAK				MIDDAY			AFTERNOON			PM PEAK			EVENING			NIGHT			
REGULAR																					
1	5	30	43	28	21	18	20	21	20	20	48	30	34	31	28	16	23	21	15	13	
2		24	26	26	21	19	20	17	19	28	24	21	25	22	15	12	14	11	10	5	2
4		5	9	8	8	6	4	5	8	7	7	14	13	11	5	5	3	4	4		
5		16	23	16	15	9	12	11	8	8	17	13	14	16	13	8	9	3			
6		25	20	25	26	17	10	17	18	15	22	21	34	16	19	11	10	4	1	1	
7	9	13	36	32	18	14	18	13	13	15	24	25	28	22	21	10	7	7	6		
8			11	8	5	5	6	6	6	6	9	9	10	5	5	3	2	2	2		
9		14	19	20	16	13	13	13	10	13	16	15	18	22	11	10	13	8			
10		25	29	28	39	22	21	26	13	25	17	31	19	21	16	14	9	11	10	9	
11	8	24	33	23	12	11	14	10	11	16	14	30	30	27	11	12	7	8	6	3	
12	0	10	13	13	12	9	9	9	8	8	10	18	15	9	8	10	3	5	5		
14	14	39	41	27	24	24	19	20	22	20	28	26	36	39	23	13	14	12	8	6	
15		5	7	3	5	3					5	5		4	3						
16		15	23	17	14	12	6	7	8	8	13	16	24	19	10	9	4	4	3		
18		35	34	32	25	21	17	21	19	24	27	25	28	25	30	19	17	20	17	10	6
19	19	42	42	34	34	29	30	36	36	33	35	41	46	44	35	20	29	23	16	13	6
20	8	7	12	13	9	8	7	7	9	6	9	9	10	10	12	7	5	3			
22	15	21	23	23	21	31	28	23	23	21	22	25	25	36	24	15	16	14	11	5	
23			12	10	12	5						12	7	9	16						
28		28	41	28	25	17	19	17	23	22	26	31	31	39	22	14	14	10	10	7	
30			27	30	15	12	13	13	22	13	50	22	27	21	17	16	7	8	10		
31		38	44	24	19	17	17	17	17	36	28	28	27	24	26	11	9	11	9	8	
34		26	40	26	14	18	13	20	21	19	30	27	22	21	19	13	11	9	9		
36		27	41	22	25	19	17	19	21	33	30	28	33	27	21	12	13	16	11	12	
40		33	40	33	27	18	20	17	19	20	20	32	33	27	17	13	13	11	9		
42		25	23	16	13	12	10	12	12	15	16	18	33	21	16	10	8	6	3		
48		6	9	10	7	7	6	5	5	6	7	9	9	10	5	4	4				
50		30	30	25	23	15	17	17	17	30	25	31	33	26	21	17	11	14	8		
55	6	23	29	27	16	15	14	13	14	21	22	27	27	23	22	9	8	9	9		
56			2	5	7	6	4	7	5	7	6	7	6	5	3						
60		26	30	22	16	17	24	18	21	25	22	28	23	22	18	9	7	6	5		
62	20	30	35	34	22	17	15	13	17	25	25	28	30	29	21	17	10	8	6		
72	27	45	62	46	39	29	34	37	32	35	50	54	50	40	35	21	21	28	27	14	5
81	23	35	27	21	20	21	16	19	19	21	24	25	30	38	28	20	12	20	16	21	
83		20	24	18	14	7	6	7	7	9	10	12	18	19	10	8	5				
88		3	17	10	12	7	5	8	8	11	18	9	13	9	7	7	5	6	7		
BREEZE																					
101	5	29	28	21	13	11	10	11	11	13	24	25	21	27	21	16	13				
441	37	51	47	31	26	20	24	26	24	27	27	41	41	46	30	16					
EXPRESS																					
106		32	25	10	6							22	25	16	10	10	1				
108		28	34	19								29	26	20	7	6	7				
109		25	34	21	13								36	27	12						
110		18	36	13								18	26	21	7						
114		39	29	12	14							38	29	9	13	12	6				

Source: APC dataset (August 2023 to January 2024)

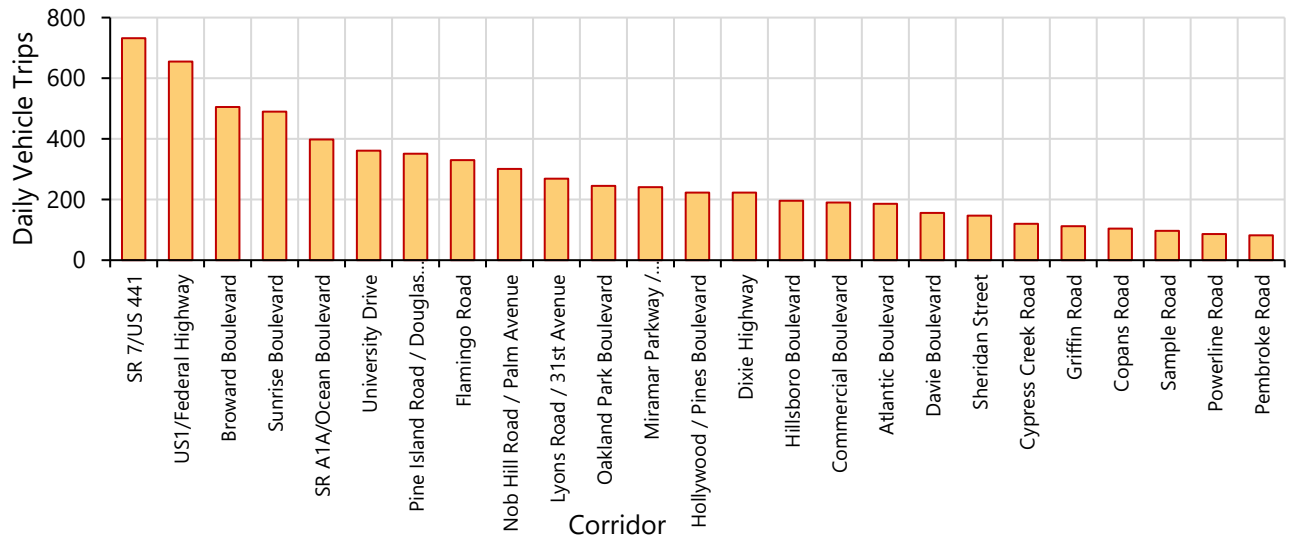
Lower  Higher

Vehicle Trips by Stop

Stop level data reveals a higher resolution of transit service productivity. The following analysis shows how service is distributed at the stop level, illustrating levels of high service and low service across the network. Ridership at the stop level follows the analysis of stop-level service distribution. Finally, ridership is normalized by the number of vehicle trips, showing the relative productivity per vehicle trip at the stop level. **Figure 15** shows how much transit service exists along the major corridors in Broward County. **Figure 16** shows transit service at the stop level using total daily weekday vehicle trips.

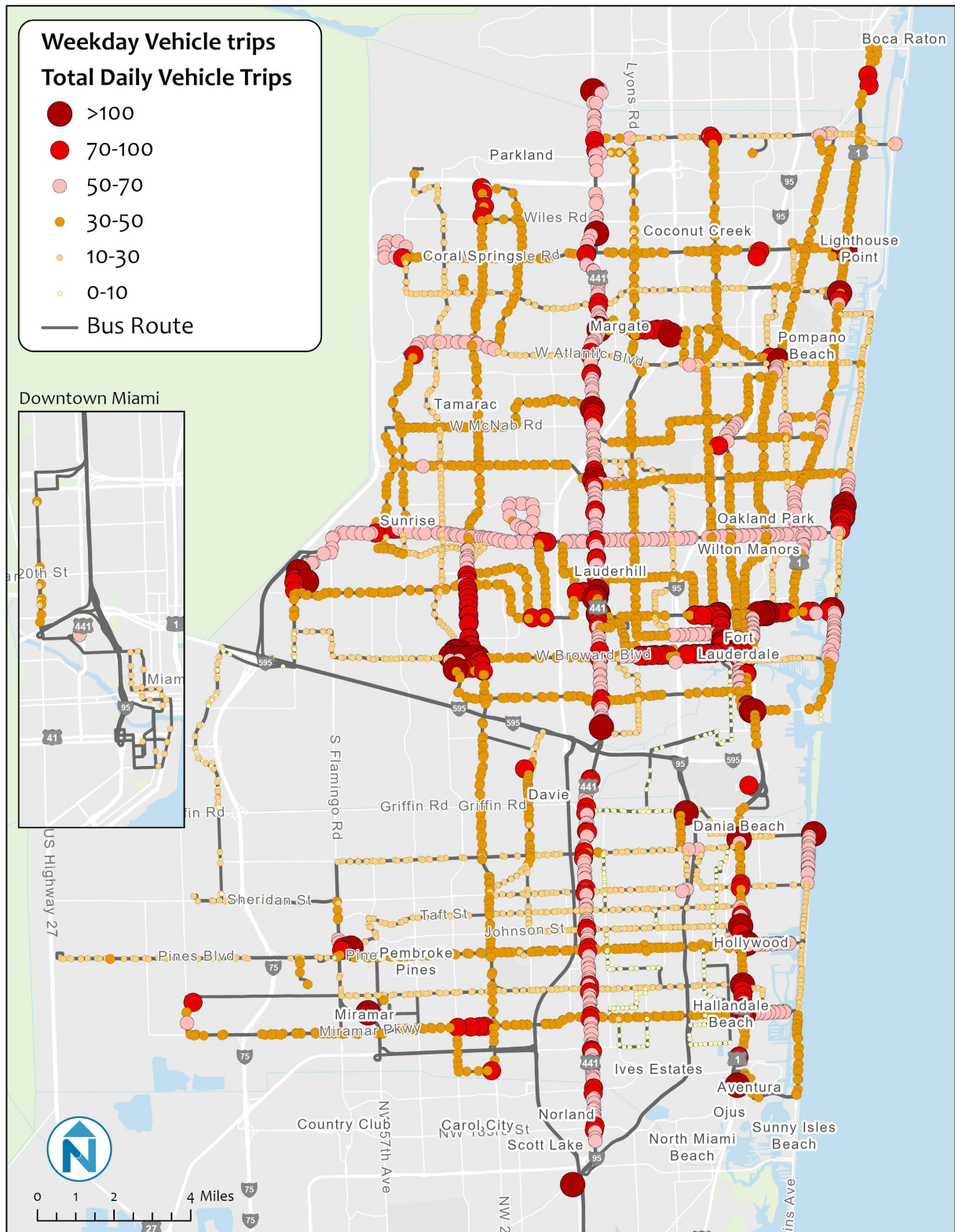
Transit service is concentrated along major corridors in Broward County that have a high concentration of activity, population, and jobs. The SR 7/US 441 corridor has the highest number of trips in the network, with routes 18, 19, and 441 operating high levels of service. US 1 / Federal Highway also has a high number of trips, with routes 1, 10, and 101 operating along substantial portions of the corridor.

- The locations with the greatest number of trips are also the transfer locations. The number of vehicle trips at each transfer locations is as follows:
 1. Broward Central Terminal – 1,109
 2. Lauderhill Transit Center – 450
 3. West Regional Terminal – 364
 4. Sawgrass Mills Mall – 315
 5. Aventura Mall – 247
 6. Northeast Transit Center – 220
 7. Golden Glades Park n Ride – 169
 8. Westfield Broward Mall – 158

Figure 15. Weekday Transit Trips by Corridor

Source: APC dataset (August 2023 to January 2024)

Figure 16. Weekday Vehicle Trips By Stop



Source: APC dataset (August 2023 to January 2024)

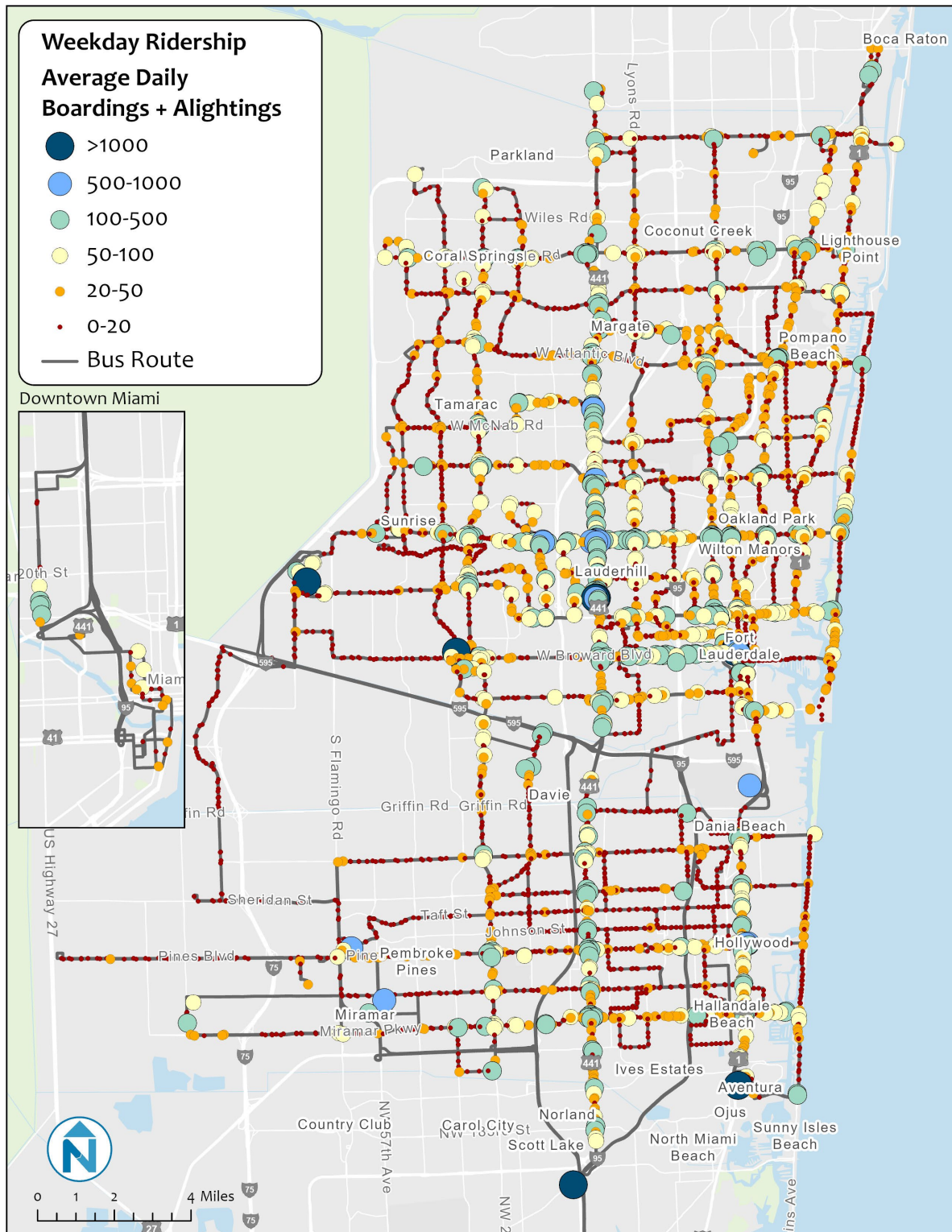
Ridership by Stop

Ridership by stop shows specific locations where riders are boarding and/or alighting transit vehicles using the APC dataset (August 2023 through January 2024). Stops with higher ridership represent locations with higher demand and stops with lower ridership represent locations with lower demand. The ridership by stop dataset is therefore a valuable resource for redistributing transit service from areas with low to demand to higher demand. **Figure 17** shows stop-level ridership. Key findings using this dataset is as follows:

- Major transfer centers have high ridership, three of which have greater than 1,000 daily boardings. Average weekday daily boardings at major transfer centers are as follows:
 1. Broward Central Terminal (5,232 boardings)
 2. Lauderdale Transit Center (3,734 boardings)
 3. Aventura Mall (1,062 boardings)
 4. Northeast Transit Terminal (820 boardings)
 5. West Regional Terminal (741 boardings)
 6. Golden Glades Park n Ride (704 boardings)
 7. Sawgrass Mills Mall (701 boardings)
 8. Broward Mall (88 boardings)
- Several corridors have very high ridership. Average weekday daily ridership along major corridors is as follows:
 1. SR 7/US 441 (11,619 boardings)
 2. Oakland Park Boulevard (6,241 boardings)
 3. US 1/Federal Highway (5,316 boardings)
 4. University Drive (3,514 boardings)
 5. Sunrise Boulevard (2,970 boardings)
 6. Miramar Parkway / Hillandale Beach Boulevard (2,667 boardings)
 7. Broward Boulevard (2,231 boardings)
 8. Powerline Road (2,209 boardings)
 9. Sample Road (2,169 boardings)
 10. Hollywood / Pines Boulevard (2,174)

- Other key destinations with high ridership are Young Circle Shopping Center (443 boardings), and Fort Lauderdale International Airport (434 boardings), and Pembroke Lakes Mall (226 boardings).

Figure 17. Weekday Ridership Activity

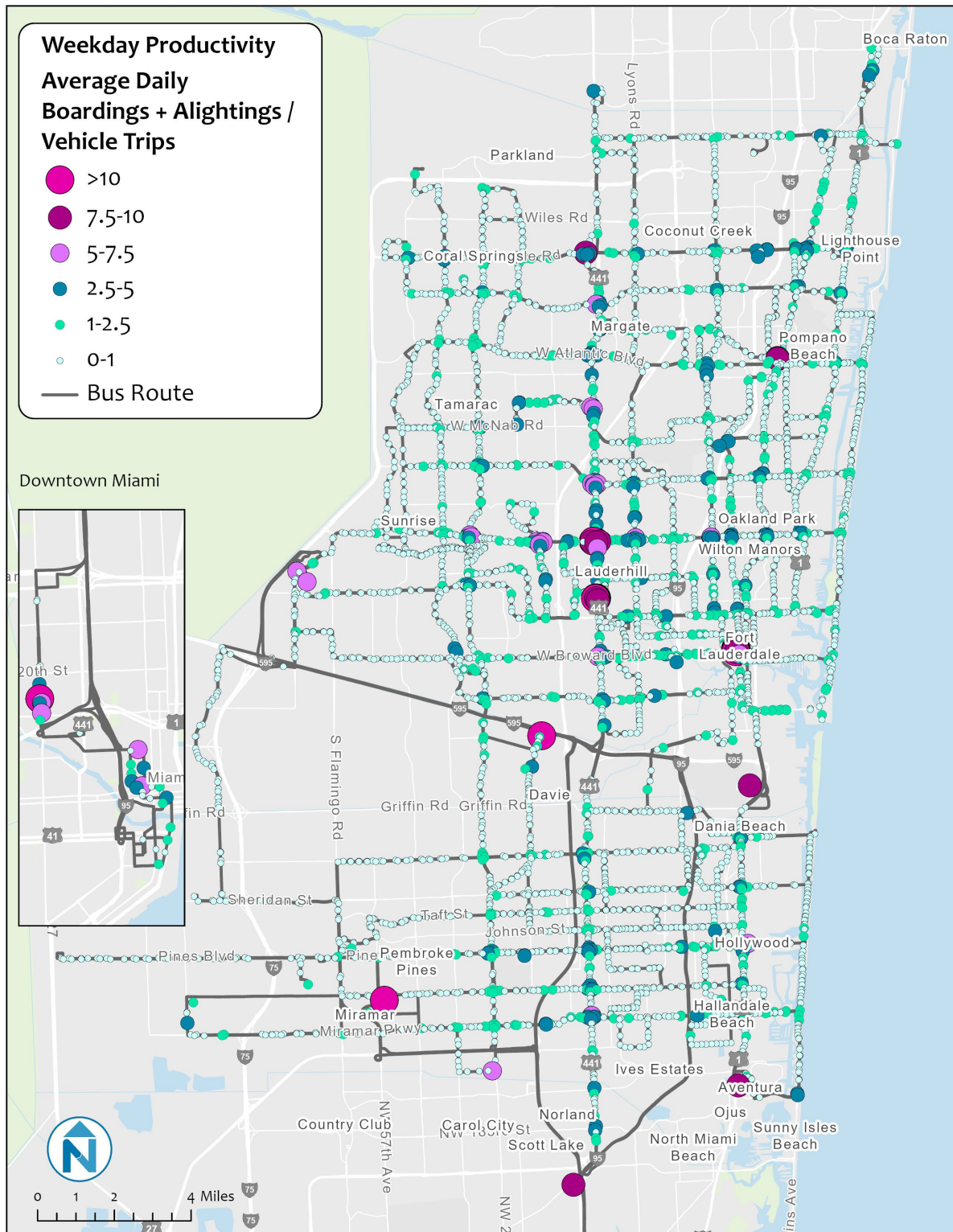


Ridership per Vehicle Trips by Stop

Total ridership at the stop level shows activity at specific locations. Ridership can also be divided by the total number of vehicle trips at specific stops to get “ridership per vehicle trip” per stop. This metric reveals demand for service relative to supply. Ridership per vehicle trip analysis reveals where certain stops and locations are overperforming and underperforming relative to the amount of service being provided. **Figure 18** shows the weekday productivity using the total ridership per vehicle trip. Observations are as follows:

- Ridership and service are well balanced; most locations that have high volumes of bus trips also have high ridership.
- Several locations/intersections at US 441 include high ridership per vehicle trips of more than five, including:
 - Sample Road southbound
 - Royal Palm Boulevard southbound
 - Kimberly Boulevard southbound and northbound
 - Commercial Boulevard southbound and northbound
 - Oakland Park Boulevard southbound and northbound
 - Lauderhill Transit Center southbound and northbound
 - Broward Boulevard southbound
 - Miramar Parkway / Hallandale Beach Boulevard northbound
- Several locations/intersections at Oakland Park Boulevard include high ridership per vehicle trips of five or more, including:
 - University Drive eastbound
 - Inverrary Boulevard eastbound and westbound
 - US 441 eastbound and westbound
 - 31st Avenue eastbound
 - Powerline Road westbound

Figure 18. Weekday Ridership Activity per Vehicle Trip



Source: APC dataset (August 2023 to January 2024)

SERVICE EFFICIENCY

Service efficiency can be measured using a variety of methods and metrics. Here, service efficiency is evaluated by measuring route speed, route directness, stop spacing, and the composition of in-service, layover, and deadhead time.

Route Speed

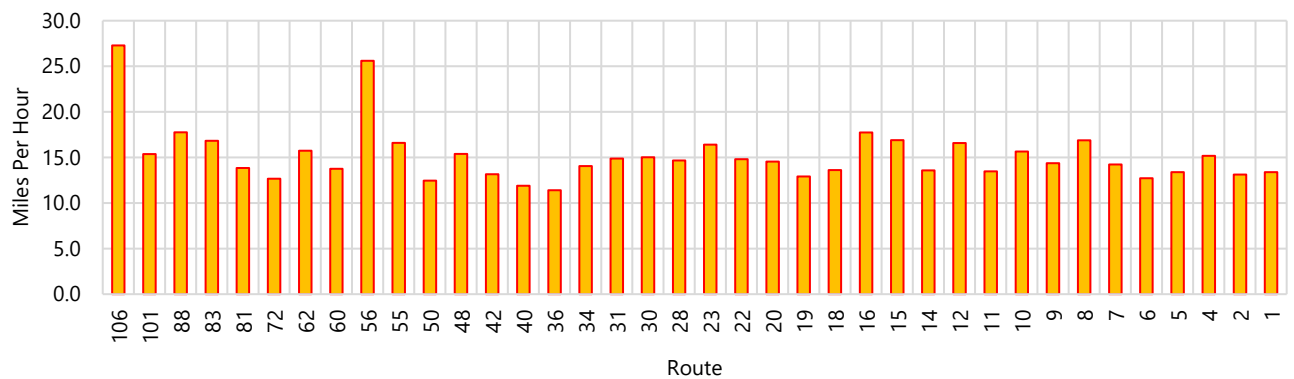
Route speed is influenced by several variables, including stop-spacing, passenger activity, and operating environment factors such as traffic congestion, turns, and traffic signals. Routes are more efficient when speeds are higher, and passengers can arrive at their destination quicker. Fall 2023 average route speeds by route type (Regular, Express, and Breeze) and day of week are shown in **Table 7**. **Figure 19**, **Figure 20**, and **Figure 21** show a comparison of speeds at the route level for all Regular routes on weekdays, Saturdays, and Sundays. Observations are as follows:

- Regular Route weekday speeds are slower than Saturday and Sunday speeds by 0.6 MPH and 1.4 MPH, respectively. This relationship is typical with slower traffic speeds on weekdays due to increased commuter travel causing congestion.
- BCT operating speeds are faster than national averages (2022 national average was 12.0 for bus and 24.3 for Commuter Bus, 2022 APTA Factbook). This could be due to BCT routes operating more streamlined alignments or through less congested streets. Faster speeds are advantageous from both an operators and passengers perspective because they are more efficient.
- The Breeze routes have improved speeds compared to their Regular route counterparts because Breeze routes stop less frequently. Route 101 (15.4 MPH) is 14% faster than Route 1 (13.4 MPH). Route 441 (15.4 MPH) is 13% faster than Route 18 (13.6 MPH) and 18% faster than Route 19 (12.9 MPH).
- The slowest routes in the network are Route 36 (Sunrise Boulevard), Route 40 (NW 31st Ave - Sistrunk - Andrews - 17th St Causeway - A1A), Route 50 (Wilton Manors Dr - Dixie Hwy), Route 72 (Oakland Park Boulevard), and Route 6 (Broward Terminal - SR84 - Ravenswood - County Line Road), and Route 19 (State Road 7 - North of Lauderhill Mall), all of which average less than 13 MPH on weekdays.
-

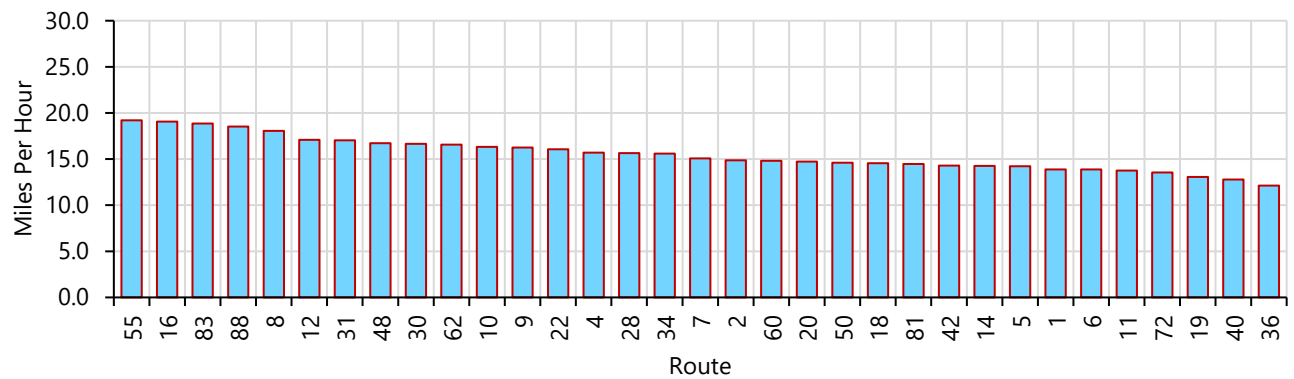
Table 7. Average Route Speed by Route Type and Day of Week (Miles per Hour)

Route	Weekday	Saturday	Sunday
Regular	14.9	15.5	15.8
Express	26.4	-	-
Breeze	15.4	-	-

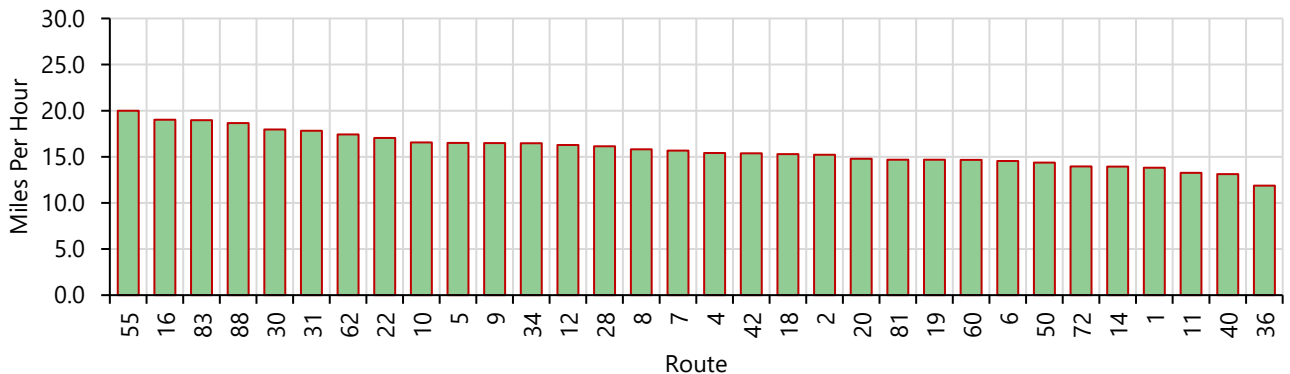
Source: Route Statistics Report (October 2023); Contracted routes 15, 23, and 56 were calculated manually

Figure 19. Weekday Average Speed by Route

Source: Route Statistics Report (October 2023); Contracted routes 15, 23, and 56 were calculated manually

Figure 20. Saturday Average Speed by Route

Source: Route Statistics Report (October 2023)

Figure 21. Sunday Average Speed by Route

Source: Route Statistics Report (October 2023)

Route Directness

Route geometry has an impact on route efficiency. The number and complexity of turning movements influences route speed and passenger travel times. Routes that adhere to simple and straight alignments tend to operate faster than routes that make deviations into neighborhoods and parking lots. In addition, routes that are more direct are oftentimes easier to understand for both operators and passengers, making the transit network less intimidating for new passengers.

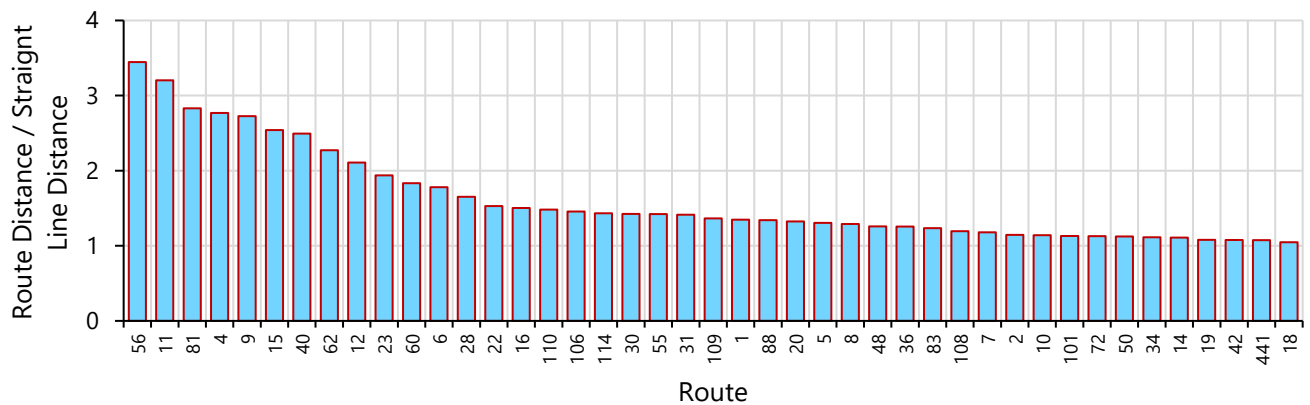
Route directness is measured here by comparing the one-way distance of the route from beginning to end to the straight-line distance from beginning to end. **Figure 22** presents the ratio for all the routes. Values close to one represent a direct route alignment. Higher values represent a less direct route alignment. **Table 25** in the Appendix shows measurements for each route. Routes with high values represent potential opportunities for realignment, which will take place in the recommendations phase of the COA. Findings from the route directness analysis are shown below:

- On average, the actual distance of routes is 62% greater than the straight-line distance. This suggests that there may be opportunities to realign routes to create more direct travel patterns. However, it should be noted that not all indirect routes can be improved with more direct service, and specific recommendations for route realignments are made on a case by case basis.
- Route 56 has the least direct path of all fixed routes. The actual route distance is 3.5 times the straight-line distance, indicating a very indirect path to arrive at the end of line. The cause of the high ratio is the multiple loops along the alignment. Route 11 also has a very high ratio of actual route distance to straight-line distance of 3.2. Route

11 operates along Ocean Boulevard on the eastern side and 21st Avenue on the western side, serving Broward Central Terminal in the middle.

- Route 18 has the most direct path of all fixed routes, operating only 5% more than the straight-line distance. Routes 441, 42, and 19 are all only 8% more in actual distance compared to straight-line distance.

Figure 22. Route Distance to Straight Line Distance Ratio



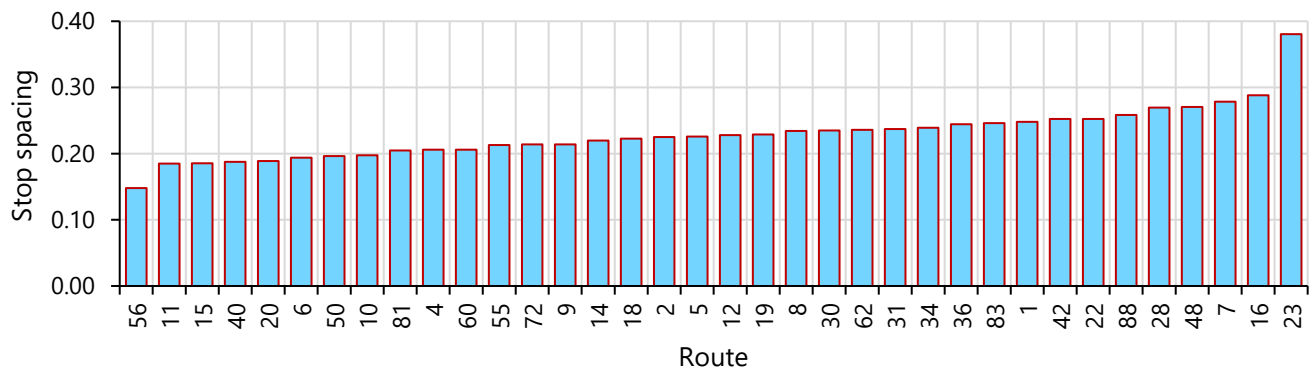
Stop Spacing

Stop spacing is simply the distance between bus stops. Bus stop spacings affect both speed and access of the transit service. Closer stop spacing enhances the accessibility of the transit network, providing more opportunities to board/alight vehicles. However, closer stop spacing can also lead to longer travel times for passengers and less efficiency for the transit agency (slower service requires greater resources to operate a given frequency compared to faster service). The number of stops being served by the route and spacing between the stops depends on the route's stretch and the type of service (regular, breeze or express) operating on that route. Express and Breeze services intentionally restrict the number of stops in favor of faster operating speeds. Regular route average stop spacing is shown in **Figure 23**. Specific measurements can be found in the Appendix in **Table 25**. Observations on stop spacing are as follows:

- On average, BCT fixed routes serve 43 transit stops. The top five highest number of stop routes in the network are 2, 9, 11, 62 and 81 that serve over 200 stops (including the outbound and inbound directions).

- Average stop spacing for Regular routes is 0.23 miles. Breeze routes have an average stop spacing of 1.04 miles. Express routes have an average of 5.07 miles. Breeze and Express routes are intentionally spaced farther apart to increase the speed of service.
- The route with the closest stop spacing is a regular route 56 with a stop at every 0.15 miles on average. Route 23 has the largest stop-spacing of any regular route, with stops occurring only every 0.38 miles.

Figure 23. Routes and Stop Spacing



In-Service, Layover, and Pull-In / Pull-Out Composition

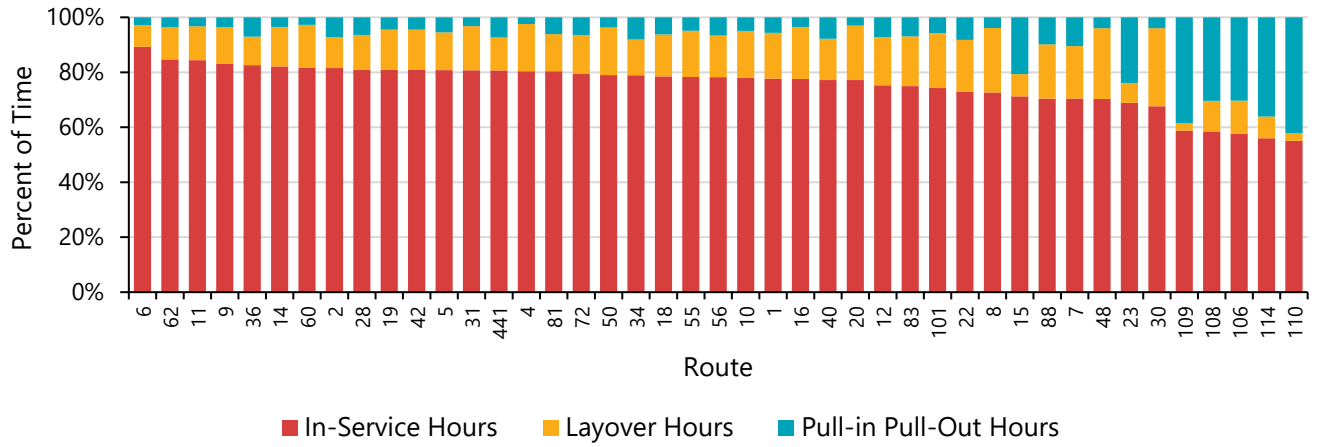
Total vehicle hours are made up of in-service hours (time in service operating along route), layover hours (recovery time built into revenue service at end of lines), and pull-in pull out hours (also known as “deadhead,” or the time required to drive from the vehicle garage to starting location of revenue service). A greater percentage of in-service vehicle time signifies more efficient service because a greater portion of resources are being spent on services open to the public. Layover, however, is necessary to preserve for 1) vehicle operator break time between trips, and 2) recovery time from delays experienced along the route. Together, in-service hours and layover hours make up revenue hours. Oftentimes, standard practice for scheduling the amount of layover is 15% layover and 85% in service. However, this standard is oftentimes modified in cases where routes are especially long (e.g. over two hours per round trip) or short (less than one hour round trip). Pull-in pull-out time is inevitable for vehicles to travel from garages to revenue service locations but should be minimized wherever possible to create efficient service. **Figure 24**, **Figure 25**, and **Figure 26** show the relative composition of in-service, layover, and deadhead hours by route. Specific values can be found in the appendix in **Table 26** (weekday), **Table 27** (Saturday), and **Table 28** (Sunday). Findings of total hour composition are described below:

- Express routes have a higher proportion of pull-in pull out time (average of 35.5%) compared to Breeze and Regular routes (average weekday of 6.3%). This is because many express trips are “peak direction” only, thereby requiring vehicles to deadhead

from the destination end-of-line (EOL) back to the origin EOL. The higher proportion of pull-in pull-out time is therefore typical of express service.

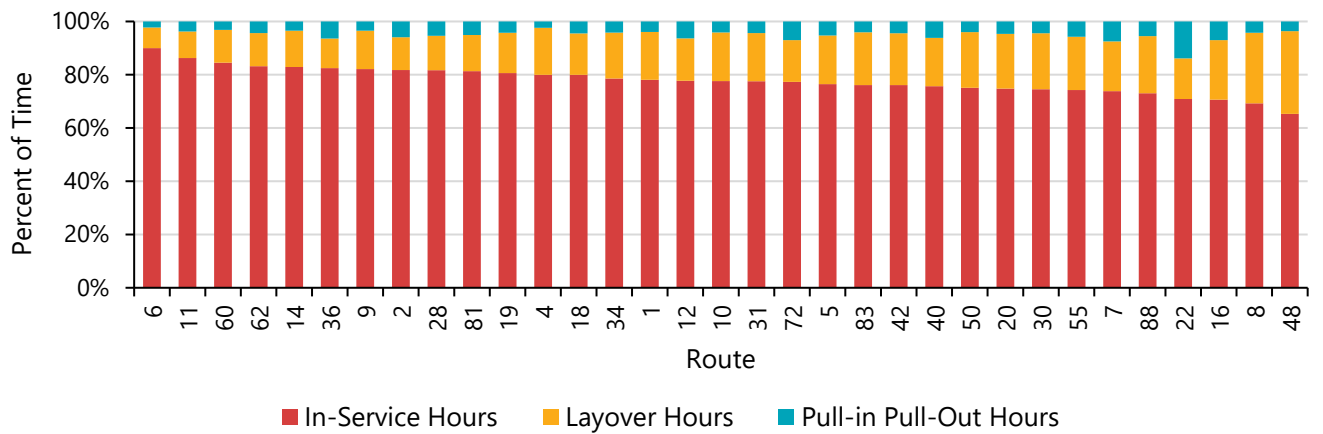
- Route 23 and Route 15 each have pull-in pull-out time that accounts for greater than 20% of the total route hours (23.9% and 20.7%, respectively). Interestingly, Route 23 and Route 15 have a very low percentage of layovers, with 9.4% and 10.2% of revenue hours, respectively. The large pull-in pull-out percentage may help account for the low layover time.
- On average, layovers make up 11.0% of revenue hours on the Express routes. Route 109 has just 4.3% layover and Route 110 has just 4.9% layover, representing the lowest percentage of layover in the transit network. Breeze routes revenue service is made up of an average of 17.1% layover. Regular service has a combined average of 16.7% layover on weekdays, 18.0% on Saturdays, and 17.0% on Sundays.
- Route 6 has the lowest percentage of layovers for Regular routes, with only 8.1% on weekdays, 7.9% on Saturdays, and 8.5% on Sundays. It should be noted that Route 6 also has low OTP during certain times of the day and week, such as 9 AM on Saturdays (29% on-time), 12 PM on Saturdays (27% on time), 6 PM on Saturdays (46%), and 2 PM on Sundays (52% on time). Additional discussion on OTP can be found in the next section on reliability.
- Layover makes up 25% or more of revenue hours on Route 30 (29.6%) and Route 48 (26.8%) on weekdays, Route 8 (27.6%) and Route 48 (32.2%) on Saturdays, and Route 16 (25.0%) and Route 30 on Sundays (25%). Out of these six instances of 25% or more layover time, only one (Route 30 on Sundays) exhibits less than average OTP with 33.3% of trips being late. The remaining examples of excessive layover times may represent opportunities for improved headways or interlining.

Figure 24. Weekday Distribution of In-Service, Layover, and Deadhead Hours

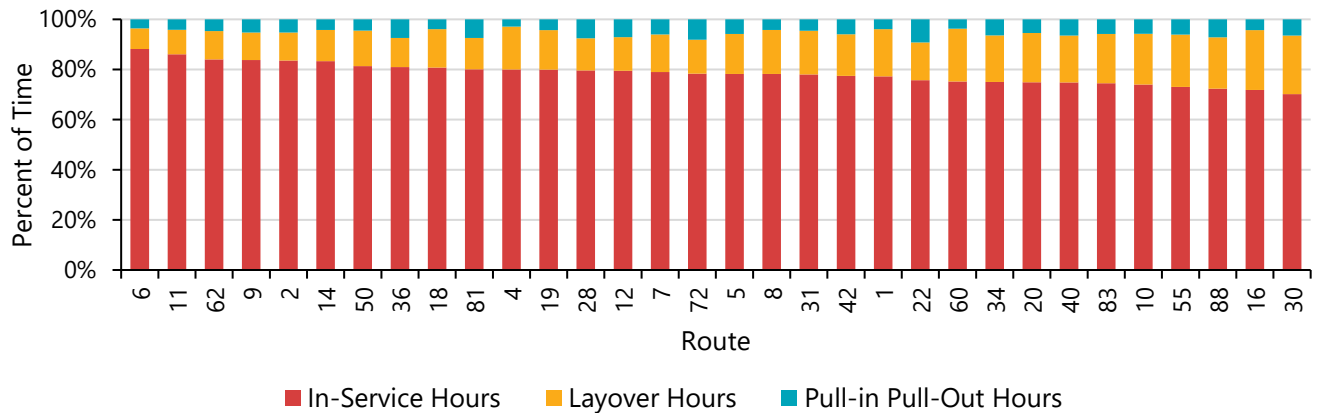


Source: Route Statistics Report (October 2023)

Figure 25. Saturday Distribution of In-Service, Layover, and Deadhead Hours



Source: Route Statistics Report (October 2023)

Figure 26. Sunday Distribution of In-Service, Layover, and Deadhead Hours

Source: Route Statistics Report (October 2023)

SERVICE RELIABILITY

Service reliability is a critical component of the passenger experience. Here, service reliability is measured in terms of OTP. OTP refers to the degree to which transit service adheres to its published schedule. OTP is measured using an on-time window of one minute early to five minutes late. Therefore, trips are considered “on-time” if the actual departure time is up to one minute before or up to five minutes after the scheduled departure time. The current OTP standard is 85%, meaning that for each route the goal is for 85% of all trips to fall within the on-time window. This section describes OTP by route and time of day. The period for which this analysis was done is October 16 through December 15 of the year 2023 to capture “typical” operating conditions without confounding the dataset with end of year traffic anomalies.

OTP by Route

Table 8 summarizes OTP by day of week. **Figure 27**, **Figure 28**, and **Figure 29** depict on time performance summarized at the route level on weekday, Saturday, and Sunday service. Findings are as follows:

- Transit service is more dependable on weekends compared to weekdays. Sunday has the most reliable service, with the least number of late trips. This relationship is attributable to more predictable traffic conditions on weekends compared to weekdays.
- OTP varies throughout the transit network by route and by day of week. In other words, strong OTP on weekdays does not guarantee strong OTP on Saturdays and/or Sundays. For instance, Route 4 has the strongest OTP in the transit network on weekdays but ranks 22nd in OTP on Sundays. Route 30 ranks 7th on weekdays but last in OTP on Sundays. Route 36 ranks 6th in OTP on weekdays and 4th on Sundays, but

22nd on Saturdays. Route 6 ranks 1st and 3rd among all routes on Saturdays and Sundays but ranks 16th on weekdays.

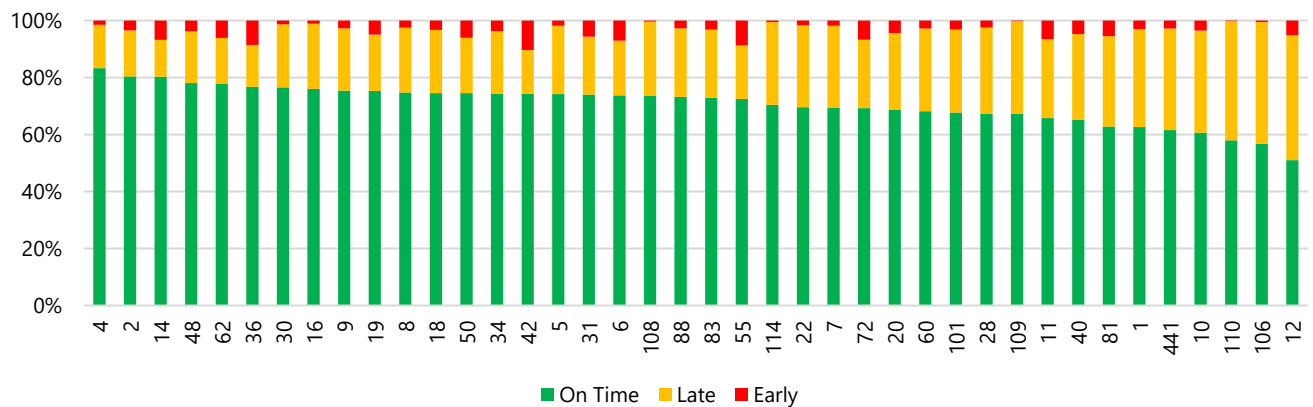
- Routes with consistently below average OTP on weekdays and weekends are 1, 10, 11, 12, 28, 40, 72, and 81.

Table 8. Weekday On-Time Percentage by Day of Week

	On Time	Late	Early
Weekday	71.1%	24.6%	4.4%
Saturday	73.9%	22.1%	4.0%
Sunday	75.3%	20.7%	4.0%

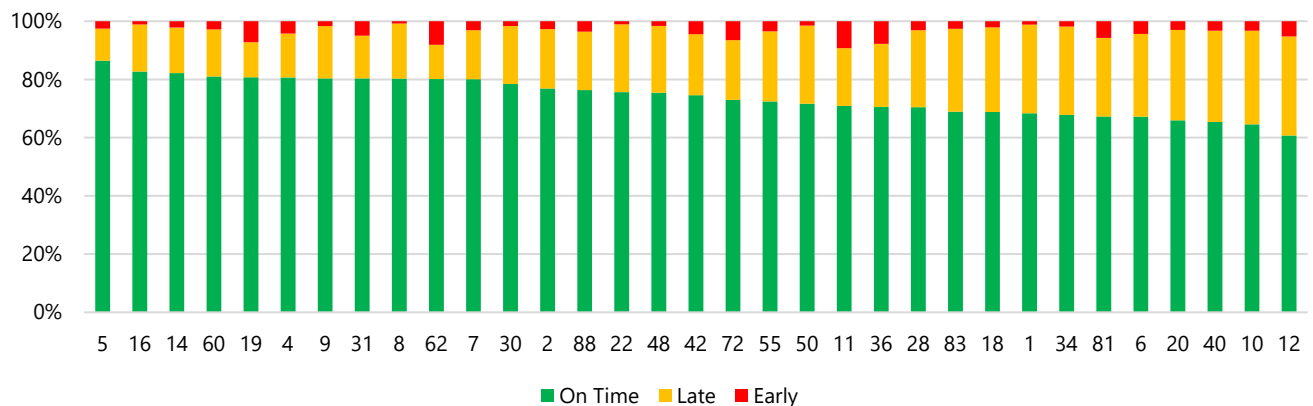
Source: AVL dataset (October 2023 to December 2023)

Figure 27. Weekday On Time Performance of Routes



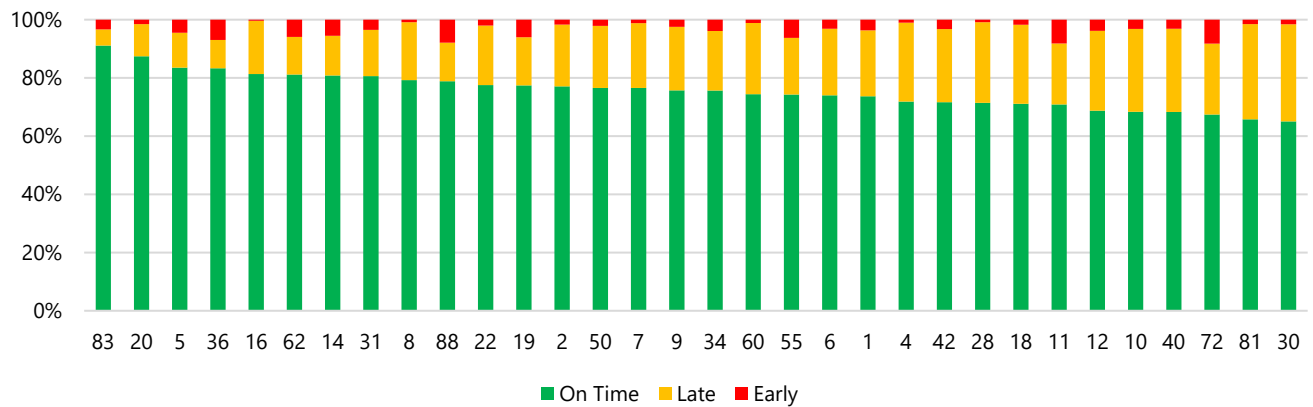
Source: AVL dataset (October 2023 to December 2023)

Figure 28. Saturday On Time Performance of Routes



Source: AVL dataset (October 2023 to December 2023)

Figure 29. Sunday On Time Performance of Routes



Source: AVL dataset (October 2023 to December 2023)

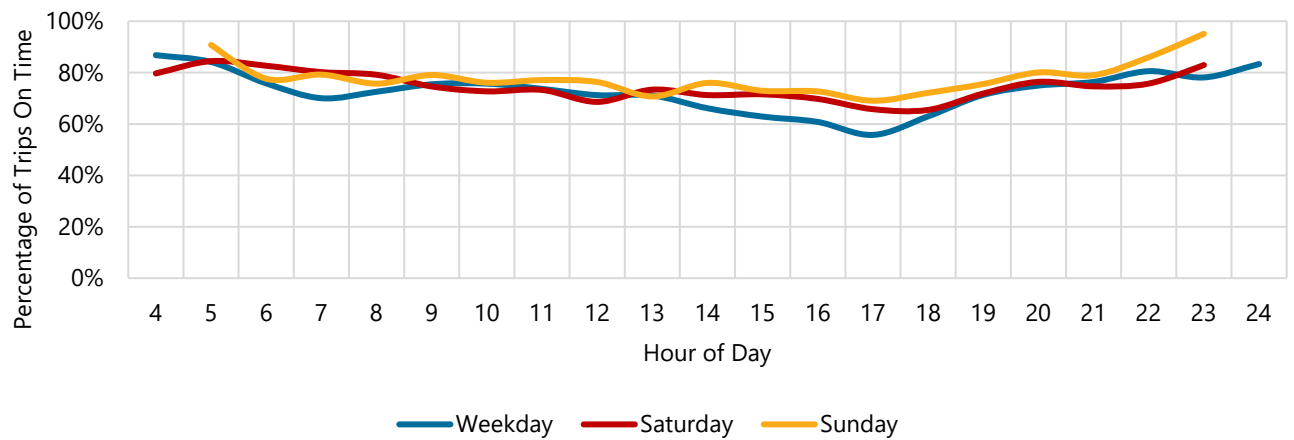
On-Time Performance by Route by Time of Day

In addition to route and day of week, OTP varies by time of day and direction due to commuting travel patterns. **Figure 30** shows OTP by time of day for weekday, Saturday, and Sunday. OTP by hour of day is shown at the route level in **Table 9**. Finally, OTP is shown by hour of day for each route separated by direction in **Table 10**. Findings from this analysis are discussed below.

- The lowest average OTP occurs on weekdays at the 5 PM hour, with about 56% of trips maintaining schedule. More generally, the segment of weekdays from 2 PM to 7 PM has relatively low OTP, with an average OTP of less than 70%.
- OTP shows the steepest decline during the 6 AM hour for weekdays and Sundays. OTP declines during the AM and PM peaks are typical for weekdays but not for Sundays. OTP struggles to improve until approximately 6 PM and 7 PM hours across all day of week types.
- Route-specific weekday OTP shows that Route 12 has low OTP throughout the day, but particularly during the AM and PM peaks in the eastbound direction. OTP during the AM peak hours is lowest at 9 AM with 27% of trips on time. OTP during the PM peak hours is lowest at 4 PM with only 13% of trips on time.
- Route 81 has low OTP in the PM peak in the westbound direction, with only 21% trips on time at 5 PM.
- Route 441 has low OTP in the PM peak in the northbound direction, with only 11% of the trips in the 5 PM hour on time.

- Route 8 has low OTP for the first couple hours of the day, with only 32% and 30% of trips on time at 6 AM and 7 AM in the westbound direction.
- Routes 1 and 28 also have relatively low OTP during the PM peak in both directions. Route 1 is only 38% on time in the northbound direction and 36% on time in the southbound direction at 4 PM. Route 28 is only 39% on time in the eastbound direction and 32% on time in the westbound direction.

Figure 30. On-Time Percentage by Hour for Weekday, Saturday, and Sunday



Source: AVL dataset (October 2023 to December 2023)

Table 9. Weekday Percentage of On-Time Trips by Route by Hour

HOUR	% On-Time																					
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	EARLY AM			AM PEAK			MIDDAY			AFTERNOON			PM PEAK			EVENING			NIGHT			
1	97	88	76	76	62	60	65	58	59	62	54	48	37	42	47	65	70	69	76	78		
2		90	85	76	82	75	88	76	78	80	72	72	70	74	88	85	81	82	88	76	94	
4		82	88	86	83	85	86	83	75	85	77	83	80	83	84	81	85	86	79			
5		93	89	90	89	86	90	85	76	85	63	55	76	56	57	74	68	64				
6		87	86	69	75	75	73	69	70	75	58	74	57	63	71	69	75	83	92	82		
7	99	90	61	67	80	89	82	77	76	68	57	61	45	45	48	62	88	91	90			
8			32	42	69	82	84	70	75	82	74	69	71	74	74	87	83	88	85			
9		88	84	85	68	89	75	74	76	86	66	62	55	72	64	75	67	89				
10		79	74	59	59	65	66	59	60	62	55	54	54	43	55	56	50	57	77	76		
11	94	82	75	76	73	72	70	70	68	59	68	36	55	42	54	59	63	69	65	90		
12	82	75	62	44	40	43	59	56	41	48	48	33	26	29	52	55	71	59	86			
14	89	85	79	80	73	81	79	81	71	78	75	79	73	77	78	87	92	87	88	74		
16		85	79	63	76	71	80	79	71	75	68	59	76	68	84	78	85	95	90			
18		90	75	66	66	71	76	80	74	73	76	71	71	63	64	77	85	86	81	84	89	
19	81	88	81	75	78	82	80	78	81	81	75	70	65	49	59	76	72	76	78	76	89	
20	88	74	72	69	63	77	70	61	70	76	72	65	60	47	62	81	72	85				
22	77	72	73	70	78	83	79	80	74	67	68	62	61	43	56	75	63	65	73	91		
28		86	82	67	69	64	69	71	70	74	72	58	52	36	39	65	66	71	81	78		
30			87	63	85	80	81	76	76	72	50	68	73	64	85	86	90	94	96			
31		85	73	75	83	85	88	81	79	70	63	54	58	52	68	80	77	83	83	68		
34		87	75	67	74	81	76	82	67	81	74	74	68	65	77	60	69	82	85			
36		88	79	80	83	83	80	83	77	71	73	65	65	68	68	78	76	79	78	80		
40		89	83	71	76	69	70	65	66	60	59	63	54	63	52	43	60	52	72			
42		81	82	75	79	78	76	71	72	68	73	75	75	58	63	75	80	79	87			
48		85	88	82	66	78	84	81	82	82	82	65	74	60	78	83	86					
50		73	76	70	70	78	75	76	78	77	65	75	68	63	86	78	77	82	73			
55	84	81	73	69	73	75	71	77	69	69	66	73	57	56	66	73	81	84	84			
60		84	68	71	79	76	78	84	63	63	64	48	66	49	56	55	84	68	85			
62	93	86	77	76	81	85	82	84	79	82	77	65	67	57	76	79	81	78	86			
72	88	84	78	74	72	71	63	63	68	68	62	69	59	59	57	74	67	71	79	82	74	
81	95	75	73	64	78	73	69	65	65	56	62	55	52	43	45	56	58	59	65	69		
83		92	62	64	61	73	73	70	72	80	62	67	75	72	83	73	86					
88		93	73	82	78	86	82	83	74	77	52	67	64	55	68	70	72	80	76			
101	92	88	90	77	65	69	72	66	58	67	70	68	51	48	47	61	70					
106		83	61	58	72							39	40	45	45	69	94					
108		98	88	81								56	66	65	73	80	89					
109		69	71	62	58							76	69	66	69							
110		68	49	44								54	63	71	71							
114		81	67	73	73							72	69	70	54	74	93					
441	81	81	56	59	67	78	71	73	71	64	68	58	47	31	37	55						

Source: AVL dataset (October 2023 to December 2023)

Lower  Higher

Table 10. Weekday Percentage of On-Time Trips by Route by Hour by Direction

Route	% On-Time																							
	Hour	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
	Dir	EARLY AM		AM PEAK			MIDDAY			AFTERNOON			PM PEAK			EVENING			NIGHT					
1	NB		92	76	76	66	57	67	66	54	59	60	34	38	43	53	68	57	70	69	92			
	SB	97	85	75	75	60	65	64	47	63	65	48	57	36	40	40	63	78	69	83	48			
2	NB		91	84	79	92	77	89	86	86	85	78	73	75	73	86	85	82	85	87	69			
	SB		89	87	74	64	74	87	60	73	76	64	71	62	75	90	85	81	80	90	88	94		
4	NB		79	86	82	82	89	85	88	59	86	79	76	83	77	86	88	80	97					
	SB		85	89	88	84	82	88	76	90	83	76	90	77	88	81	75	95	80	79				
5	EB		93	80	84	91	84	87	79	79	69	63	28	65	57	47	59	83	39					
	WB			98	92	86	89	94	96	74	97	63	82	85	55	78	87	52	87					
6	NB		85	85	60	78	77	65	78	73	70	68	75	59	65	67	68	64	71	92	82			
	SB		89	88	76	68	74	81	60	65	78	50	73	56	59	73	70	82	90					
7	EB	99	94	76	82	71	84	87	83	61	66	61	68	58	45	43	78	87	87	90				
	WB		87	53	49	91	94	77	73	88	69	54	54	31	46	54	49	89	96	91				
8	EB				55	78	78	83	84	67	88	70	87	68	82	80	87	74	93	85				
	WB			32	30	64	89	86	64	92	79	82	50	72	59	71	86	92	85					
9	NB		89	87	95	62	83	76	97	81	91	63	65	70	92	61	86	88	86					
	SB		88	81	76	74	96	74	52	71	75	67	60	38	52	67	63	43	91					
10	NB		73	60	64	58	64	67	56	61	56	59	49	49	46	44	51	55	48	73	67			
	SB		84	91	56	62	68	64	62	59	70	52	60	60	40	65	68	44	66	82	85			
11	EB		79	75	60	67	69	75	59	64	61	71	34	60	56	61	33	50	76	75				
	WB	94	86	75	84	80	76	61	81	72	58	65	39	45	29	49	70	77	57	58	90			
12	EB		61	73	38	30	27	38	37	35	23	35	18	13	16	30	53	77	55	80				
	WB	82	86	54	50	51	59	79	74	47	69	61	46	39	41	73	57	65	68	91				
14	NB	89	76	77	72	67	83	74	78	72	72	65	72	68	83	73	89	90	80	88	74			
	SB		93	82	90	81	78	85	86	71	86	83	87	81	70	81	84	95	95	87				
16	EB		89	79	54	77	70	77	77	87	72	64	67	89	63	88	91	81	94	90				
	WB		80	78	71	73	72	83	82	64	77	76	56	63	77	79	72	92	95					
18	NB		92	74	62	69	70	75	81	71	75	77	79	73	71	69	77	89	82	88	88			
	SB		88	76	70	61	72	79	78	76	70	75	62	67	54	59	76	83	92	73	74	89		
19	NB	93	86	79	70	77	84	74	75	74	77	72	61	69	55	54	75	78	67	77	72	89		
	SB	76	91	84	79	78	81	84	81	89	85	78	79	61	40	65	78	66	85	80	79			
20	NB			79	68	69	72	82	57	62	76	73	48	72	24	62	79	51	85					
	SB	88	74	58	69	60	82	57	70	78	76	71	83	33	68	62	84	92						
22	EB	77	86	78	68	76	85	73	77	77	57	71	65	63	58	53	75	78	71	75	98			
	WB		62	63	73	80	79	84	81	71	76	66	59	60	28	58	75	49	59	72	81			
28	EB		86	84	54	63	68	74	79	70	65	70	58	66	39	32	57	63	72	76	78			
	WB		87	81	79	76	61	64	64	71	84	73	59	39	32	46	71	68	70	85	78			
30	EB			83	51	85	79	66	84	75	75	42	80	77	77	89	89	92	98	94				
	WB			92	75	86	81	88	69	77	68	54	58	70	57	76	84	89	91	97				
31	NB		89	73	72	83	76	85	83	74	76	69	57	52	53	71	81	83	79	83	68			

Route	% On-Time																							
	Hour	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
	Dir	EARLY AM		AM PEAK			MIDDAY			AFTERNOON			PM PEAK			EVENING			NIGHT					
34	SB		83	73	77	81	89	92	78	85	63	58	47	61	51	66	80	70	87					
	EB		89	73	64	69	83	83	78	77	79	75	74	65	73	88	48	71	83	84				
	WB		85	76	70	80	78	69	86	63	86	73	75	71	57	67	73	67	81	86				
36	EB		88	80	82	85	87	82	88	79	84	82	68	70	75	67	79	78	79	85	80			
	WB		87	79	79	79	81	77	78	76	62	59	63	60	58	68	78	75	78	76				
40	EB		87	79	63	68	68	64	54	71	60	57	66	42	57	62	39	61	35	65				
	WB		93	86	77	85	69	75	74	61	59	62	61	63	66	44	51	59	66	82				
42	EB		95	81	74	74	88	69	84	72	63	72	80	79	58	67	83	81	81	87				
	WB		69	82	75	84	58	79	58	71	71	73	70	71	56	59	71	78	79					
48	EB		71	88	79	78	75	84	94	84	87	82	78	88	72	78	92	85						
	WB		98	87	87	60	80	85	52	81	77	81	58	61	49	79	80	86						
50	NB		65	70	76	75	76	73	74	80	72	68	81	64	67	84	72	78	74	70				
	SB		77	80	53	64	80	78	78	76	84	57	69	72	59	88	85	75	87	78				
55	EB	88	76	65	72	73	73	70	74	79	70	82	76	77	55	58	79	87	83	87				
	WB	80	85	76	66	72	76	71	80	62	67	60	71	42	57	72	68	76	86	83				
60	NB		81	73	58	85	73	69	84	61	72	51	38	65	61	36	69	83	57	82				
	SB		85	65	81	68	79	82	83	65	56	69	56	68	40	74	43	87	85	87				
62	EB	93	81	69	78	85	82	78	89	78	84	86	72	76	66	84	80	88	90					
	WB		89	84	73	78	87	86	79	79	81	70	52	58	53	69	79	77	69	86				
72	EB	88	76	76	70	70	75	61	71	72	67	64	75	70	61	50	70	62	76	77	82	74		
	WB		93	80	77	73	64	66	54	63	70	61	63	48	57	64	78	70	68	80	82			
81	EB	95	74	68	66	80	78	78	60	63	66	57	51	62	62	49	54	63	74	71	59			
	WB		78	78	62	75	68	64	70	67	44	74	59	46	21	33	57	42	43	60	80			
83	EB		89	78	51	59	72	74	72	65	80	45	63	75	86	88	57	94						
	WB		96	54	75	66	74	70	69	81	80	72	71	73	56	80	91	78						
88	NB		93	78	90	88	84	87	86	80	70	66	86	72	53	82	71	90	90	74				
	SB			62	72	68	88	77	78	67	85	44	48	47	56	56	70	55	71	81				
101	NB		91	90	80	68	70	75	63	61	65	71	68	60	49	44	64	59						
	SB	92	83	90	73	63	68	68	68	52	68	69	68	42	47	50	55	88						
106	NB		75	40	23								39	36	46	52	70	94						
	SB		85	68	66	72								64	43	32	62							
108	NB			86									52	56	58	64	80	89						
	SB		98	89	81								76	81	73	88								
109	NB				64								76	69	63	69								
	SB		69	71	61	58									72									
110	NB			45	8								54	63	68	71								
	SB		68	50	52										84									
114	NB		77	49									72	69	68	52	74	93						
	SB		82	74	73	73									73	57								
441	NB	74	84	44	51	61	73	69	70	60	52	66	59	41	11	38	63							
	SB	88	79	68	67	72	84	74	76	82	77	70	56	53	41	35	46							

Source: AVL dataset (October 2023 to December 2023)

Lower  Higher

SERVICE COST EFFECTIVENESS

Service cost effectiveness measures the financial performance of a transit service. Measuring service cost effectiveness reveals insights into both the total resources required to operate a service as well as the return on investment of those resources in the form of passenger trips. Service cost effectiveness therefore measures not only total costs in absolute terms (discussed in the Total Costs and Ridership section) but also how efficient transit service operates on a “per passenger” level (Cost per Passenger section).

Total Costs and Ridership

The total daily costs of each route in the network were estimated using scheduled revenue hours per weekday, Saturday, and Sunday (October 2023) and an average cost per revenue hour of \$122.63. Costs are accounted for with a combination of fare revenues and subsidies. Fare revenues were calculated using the average fare per passenger per route, and then distributed proportionally by day type (weekday, Saturday, and Sunday). Subsidy makes up the remainder of service costs, which comes from a variety of operating revenues.

Farebox recovery ratio, a standard cost effectiveness metric in the transit industry, is defined as the portion of operating expenses which are met by the fares paid by passengers. **Figure 31, Figure 32, and Figure 33** show the total cost of each route, including the portion of costs made up by fare revenue and subsidy for weekday, Saturday, and Sundays for October 2023. Farebox recovery ratio is quantified by calculating fare revenue over the total daily cost. Average farebox recovery ratio on weekdays, Saturdays, and Sundays for each route type is shown in **Table 11**. Total ridership is also depicted for reference from October 2023 farebox data. It should be noted however, that farebox data do not always account for 100% of passenger activity due to issues with farebox equipment or missed fare payments. Findings from these figures is as follows:

- The farebox recovery ratio is much higher for Regular and Breeze routes compared to Express routes. Of the express routes, Routes 109 and 110 have the highest farebox recovery ratio with 2.8%.
- Of the Breeze routes, Route 441 has a much higher farebox recovery ratio compared to Route 101, with 14.8% compared to 10.7%.
- The farebox recovery ratio ranges significantly among Regular routes. On weekdays, routes 56, 15, and 23 have the lowest farebox recovery ratio among Regular routes,

with less than 5%. It should be noted that Route 56 does not collect fares. The top five Regular routes on weekdays are 19 (21.9%), 34, (21.3%), 72 (19.6%), 18 (19.3%), and 50 (17.0%).

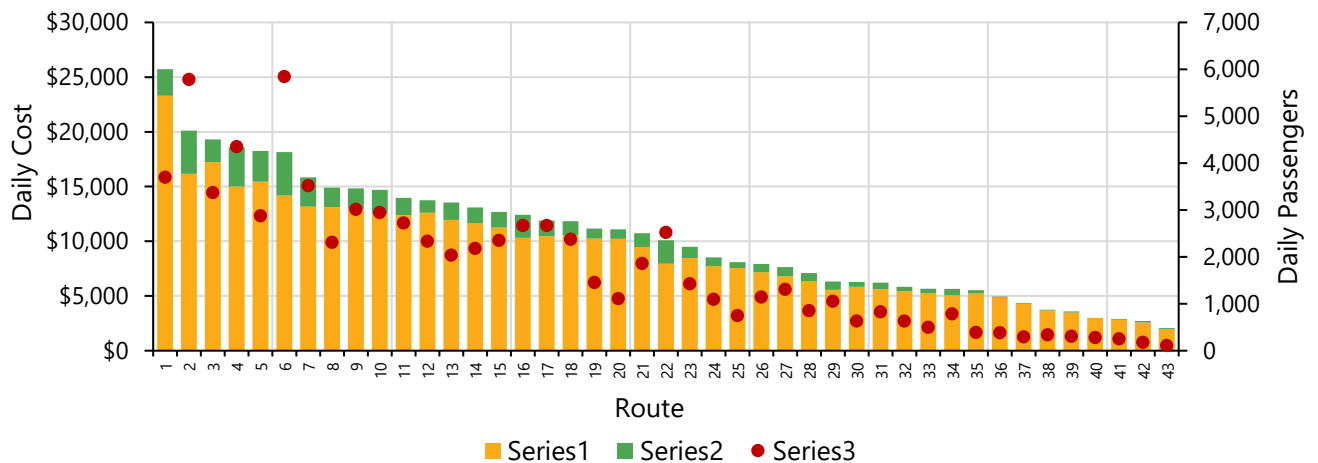
- Route 2 has the highest daily cost in the network on weekdays by a large margin, costing approximately \$25,726 a day. The high daily cost of Route 2 is a function of the long route length and frequent service, resulting in high revenue hours and revenue miles. However, despite Route 2 being the most expensive route in the network, it only has the fourth highest daily ridership, behind routes 19, 72, and 18.
- Routes 72 and 19 have much higher ridership than other routes that have similar costs, evidenced by the higher daily passenger count values in **Figure 31**.

Table 11. Average Farebox Recovery Ratio by Route Type and Day of Week

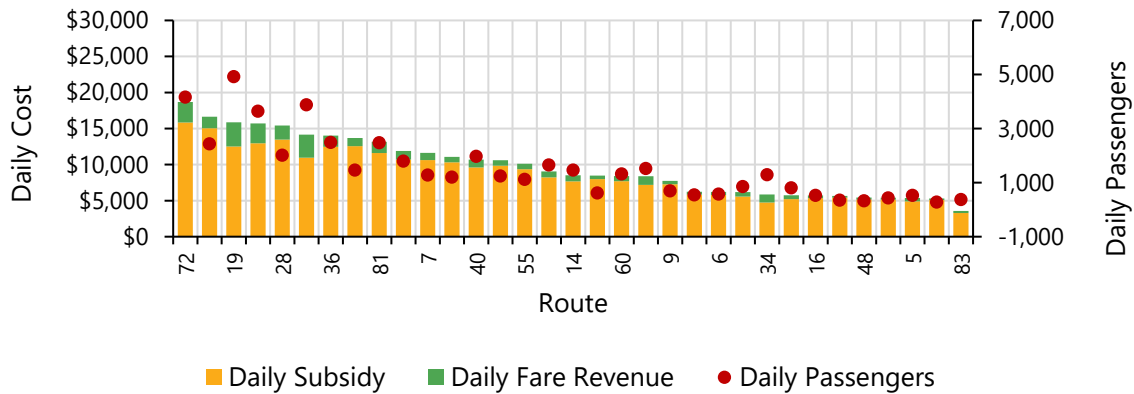
	Weekday	Saturday	Sunday
Regular	11.0%	9.9%	9.1%
Breeze	12.7%	-	-
Express	2.2%	-	-

Source: BCT Monthly Ridership Report (October 2023)

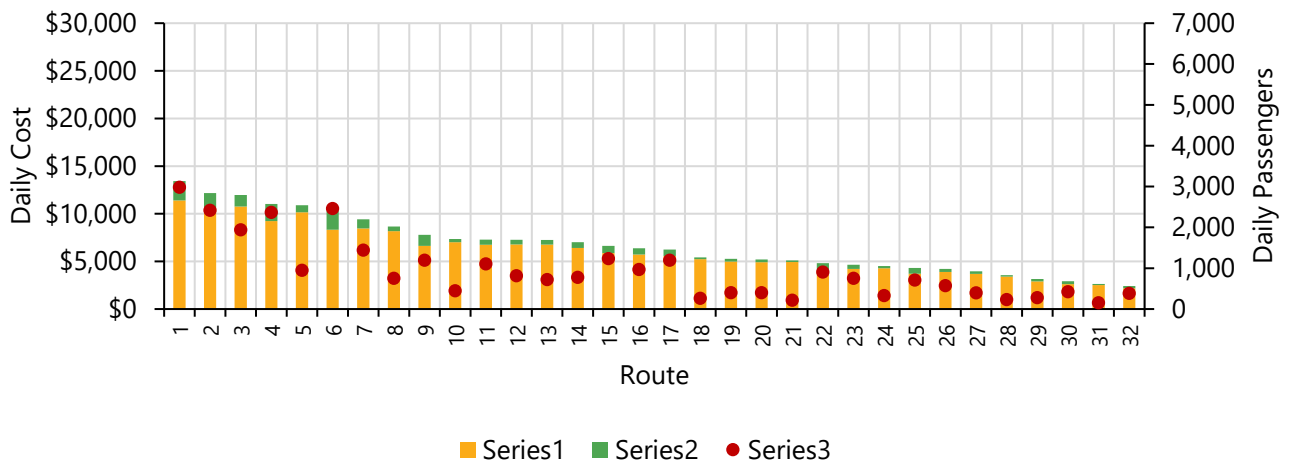
Figure 31. Weekday Daily Cost and Daily Passengers



Source: BCT Monthly Ridership Report (October 2023)

Figure 32. Saturday Daily Cost and Daily Passengers

Source: BCT Monthly Ridership Report (October 2023)

Figure 33. Sunday Daily Cost and Daily Passengers

Source: BCT Monthly Ridership Report (October 2023)

Cost per Passenger

The previous section showed the composition of cost per route using the farebox recovery ratio. However, additional perspective is gained when costs are normalized by passenger activity. Cost per passenger can be used to show the relative efficiency of service by accounting for how many passengers each route is serving. Cost per passenger is typically calculated as either total cost per passenger, or net cost per passenger. Total cost per passenger utilizes the total estimated costs and normalizes by passenger activity. Net cost per passenger (also known

as subsidy per passenger), removes fare revenues from the total cost and is therefore more focused on the portion of costs that must be covered by the transit agency.

Normalizing costs by ridership, therefore, provides another valuable metric in evaluating route performance. Total cost per route was estimated using an average cost per revenue hour of \$122.63 and revenue hours from the October 2023 BCT Monthly Ridership Report. Passenger counts and fare revenues from the October 2023 BCT Monthly Ridership Report were then used with the total cost per route to calculate total cost per passenger and net cost per passenger. The resulting cost per passenger by day of week type and service type is shown in **Table 12**. Average subsidy per passenger by day of week type and service type is shown in **Table 13**. Route specific cost per passenger data are shown in **Figure 34** (weekday), **Figure 35** (Saturday), and **Figure 36** (Sunday). Like the previous section, costs are disaggregated into subsidy and fare revenues. This breakdown provides an opportunity to not only see total cost on a passenger basis, but also the net cost or required of BCT for each route. Findings from this analysis are as follows:

- Although the Express routes have some of the lowest total costs of any BCT service, as discussed in the previous section, Express service has the highest cost per passenger on average. The average subsidy per passenger is 81.4% higher on Express routes compared to Regular routes. All Express routes have an average cost per passenger of over \$11.00.
- Six Regular routes have a weekday cost per passenger of over \$10.00, including routes 15 (\$18.59), 23 (\$15.07), 8 (\$14.16), 48 (\$11.36), 4 (\$10.81), and 56 (\$10.62). A total of ten routes are over \$10.00 per passenger on Saturdays and thirteen on Sundays.
- The most cost-effective routes in terms of cost per passenger are:
 - Weekdays: 19 (\$3.11), 72 (\$3.48), 34 (\$4.01), 18 (\$4.27), and 60 (\$4.46)
 - Saturdays: 19 (\$3.23), 18 (\$3.65), 1 (\$4.32), 72 (\$4.49), and 34 (\$4.55)
 - Sundays: 18 (\$4.21), 19 (\$4.51), 1 (\$4.67), 72 (\$5.04), and 40 (\$5.23)

Table 12. Average Route Cost per Passenger by Route Type Day of Week

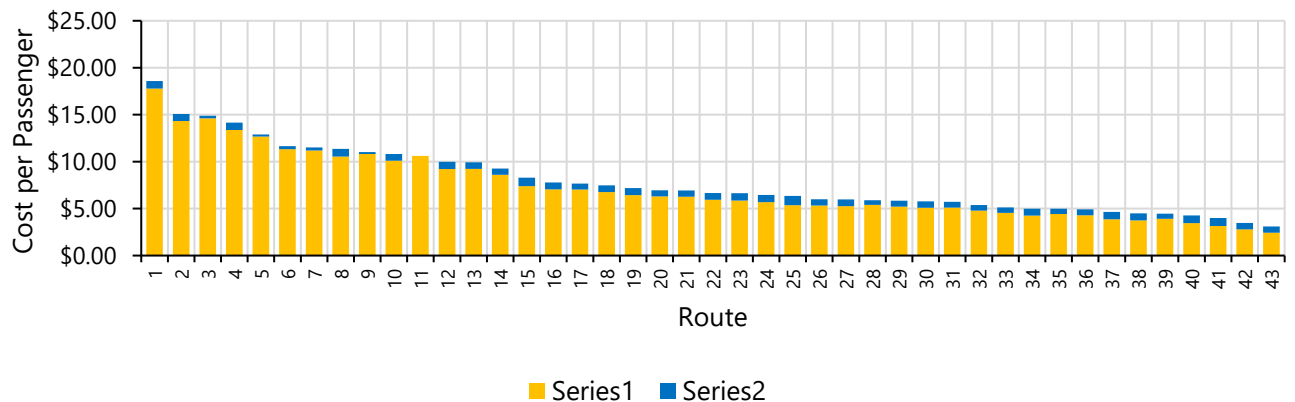
	Weekday	Saturday	Sunday
Regular	\$7.38	\$8.58	\$9.55
Breeze	\$5.82	-	-
Express	\$12.39	-	-

Source: BCT Monthly Ridership Report (October 2023)

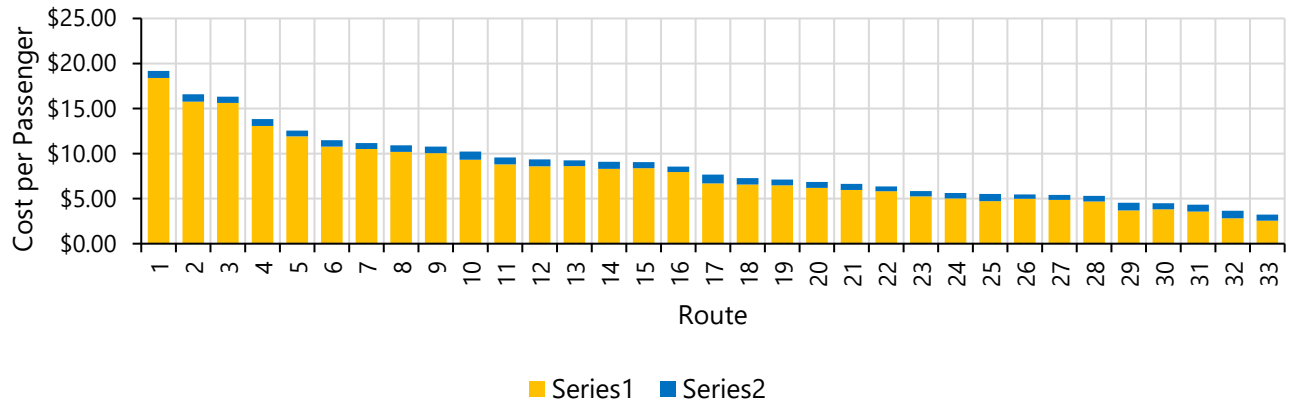
Table 13 Average Route Net Cost (Subsidy) per Passenger by Route Type Day of Week

	Weekday	Saturday	Sunday
Regular	\$6.69	\$7.88	\$8.84
Breeze	\$5.10	-	-
Express	\$12.13	-	-

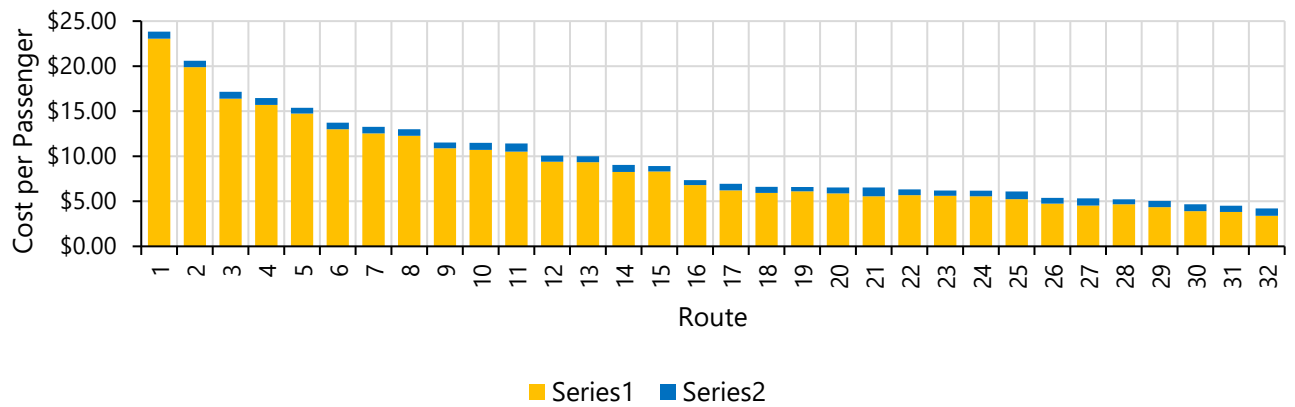
Source: BCT Monthly Ridership Report (October 2023)

Figure 34. Weekday Cost per Passenger

Source: BCT Monthly Ridership Report (October 2023)

Figure 35. Saturday Cost per Passenger

Source: BCT Monthly Ridership Report (October 2023)

Figure 36. Sunday Cost per Passenger

Source: BCT Monthly Ridership Report (October 2023)

3 COMMUNITY SHUTTLE ASSESSMENT

The Community Shuttle Assessment evaluates the routes designated as “Community Shuttles” throughout Broward County. While the Existing Planned and Future Conditions Report introduces and describes Community Shuttle service, the Data Analysis and Evaluation of Existing Service report focuses on Community Shuttles performance using ridership data.

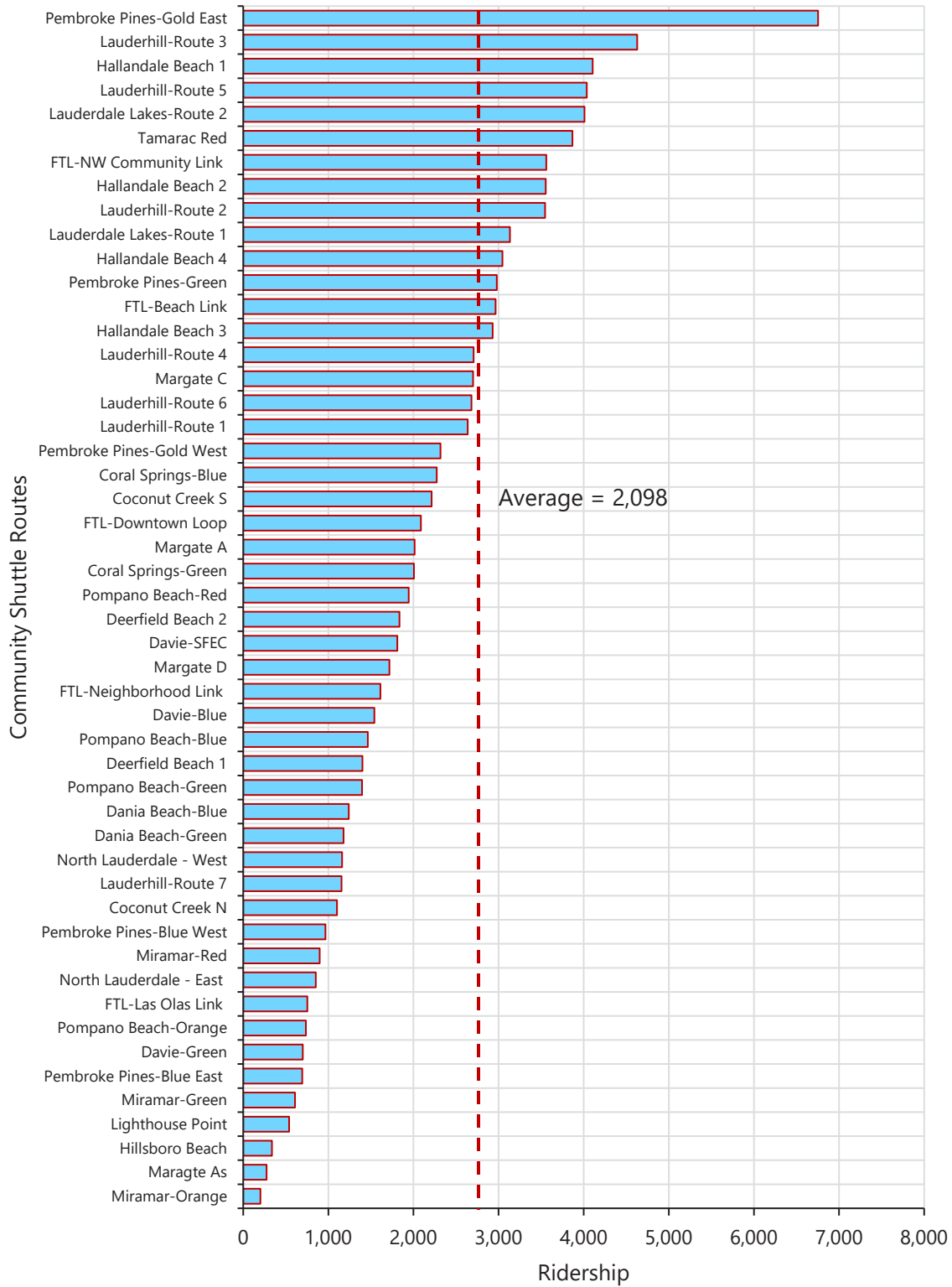
SERVICE PRODUCTIVITY

Community Shuttle routes are analyzed and evaluated based on productivity. While productivity can be measured using a variety of methods and metrics, Community Shuttle routes are assessed using ridership, service, and demographic data. Specifically, this section reveals the ridership by route, ridership per revenue hour, and ridership per population access.

Ridership by Route

Figure 37 shows total monthly ridership for community shuttle routes from October 2023. No data for the Hollywood routes, Miramar Yellow and Fort Lauderdale Gault Mile were included as they were not in service during the data collection period, Observations from this analysis is as follows:

- The ridership varies significantly across the routes potentially due to the differences in their service areas and operational hours. Routes like Miramar Orange, Margate A, Hillsboro Beach, Lighthouse Point, Miramar Green have monthly ridership in the range of 200-600.
- Routes with the highest ridership include Lauderdale Lakes Route 2, Lauderhill Route 5, Hallandale Beach 1, Lauderhill Route 3, Pembroke Pines Gold East with ridership in the range 4,000-7,000.

Figure 37. Community Shuttle Ridership by Route

Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

Ridership per Revenue Hour by Route

Ridership per revenue hour for community shuttle routes is presented in the **Figure 38**. Ridership and service hours are from Fall 2023 (October 2023).

- Like monthly ridership, ridership per revenue hour also varies significantly which indicates that the demand per unit supply is not uniform across the routes.
- The top five community shuttle routes with the highest ridership per revenue hour include Margate C, Lauderhill-Route 5, Lauderhill-Route 6, Lauderdale Lakes-Route 2, and Lauderhill-Route 3. The average ridership per revenue hour is 9.

Figure 38. Community Shuttle Ridership per Revenue Hour by Route

Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

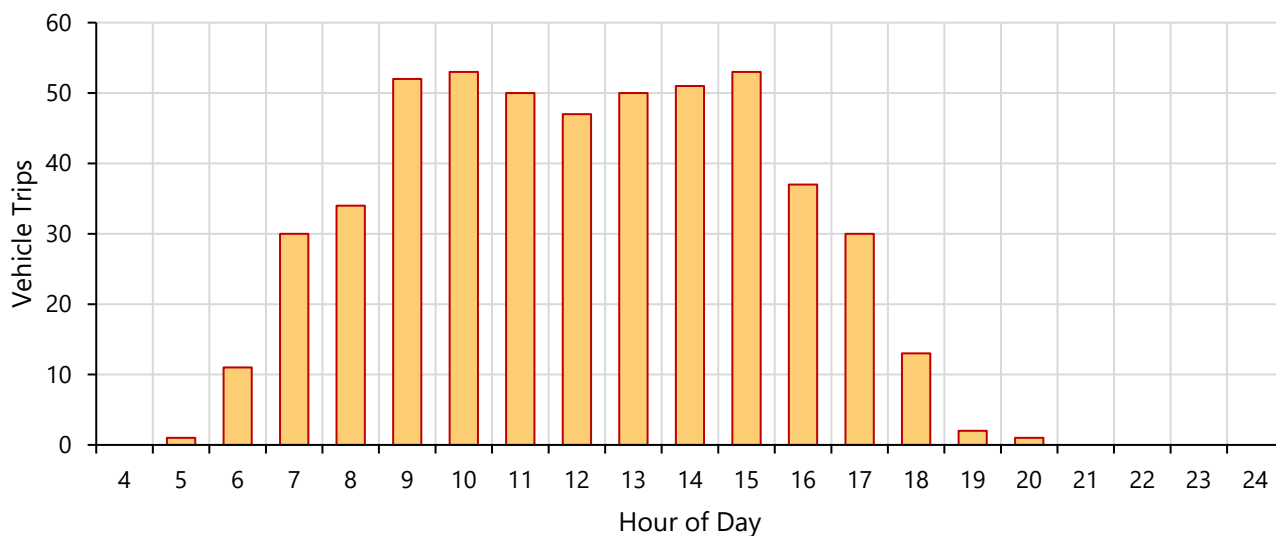
Vehicle Trips by Time of Day

Vehicle trips were calculated using ridership sheets recorded by vehicle operators in October 2023.

Community shuttles generally operate on hourly schedules and therefore produce approximately one trip an hour for every hour while in operation. **Figure 39** shows the cumulative trip count for all Community Shuttle routes on an average weekday by hour. Key findings are as follows:

- Community Shuttle service generally begins later in the day compared to BCT Regular routes. The Davie Blue Community Shuttle is the only route that begins in the 5 AM hour. Eleven Community Shuttles are in operation during the 6 AM hour. By the 9 AM hour, nearly all Community Shuttles have begun service (only the Fort Lauderdale Beach Link and Las Olas Link begin service in the 10 AM hour).
- Most routes operate consistent service through the midday. Routes with midday gaps include Lauderhill 6 and Lauderhill 7, Miramar Orange, Davie Green).
- Service ends for most routes during the 4 PM and 5 PM hours. By 6 PM, only 12 routes are still in operation. Only Davie SFEC and Lauderhill 5 operate trips beginning in the 7 PM hour.

Figure 39. Weekday Total Vehicle Trips by Hour of Day



Ridership by Time of Day

Ridership by hour of day was also calculated using ridership sheets recorded by vehicle operators in October 2023. The cumulative ridership for Community Shuttle routes is shown in **Figure 40**. For a more detailed view of ridership by hour, **Table 14** displays the same dataset at the route level. Findings are as follows:

- Ridership by hour of day generally follows the service available in the previous section. Passenger counts increase dramatically at the beginning of the day, from the 6 AM hour to the 7 AM hour, then

again during the 9 AM hour. The peak of ridership occurs during the 10 AM hour with 1,070 boardings and alightings (average of 535 riders) before decreasing modestly during the midday.

- The PM peak occurs during trips starting in the 1 PM hour with 1,007 boardings and alightings (average of 503.5 riders), with decreasing ridership every hour until the end of service.
- Ridership by hour of day at the route level shows a wide range of passengers throughout the day. For example, Miramar Green has relatively few riders throughout the day, but averaged 31.2 boardings + alightings during the 6 AM hour.
- The Pembroke Pines Gold East route observed the highest ridership level of any route, with 124 boardings + alightings during the 1 PM hour and 93 during the 10 AM hour. Other routes that showed high ridership activity in a single hour (at least 50 boardings + alightings) were Fort Lauderdale Beach Link, Fort Lauderdale NW Community Link, Lauderdale Lakes NS, Lauderhill 2, and Lauderhill 6.
- Lauderhill 5 had the highest ridership later in the day, with 35.6 boardings + alightings during the 7 PM hour. Lauderdale Lakes NS also had relatively high ridership later in the day, with an average of 30.0 boardings + alightings during the 6 PM hour.
- Miramar Orange had very low ridership throughout the day. The highest ridership hour was 2 PM with an average of only 7.6 boardings + alightings). Lighthouse Point also observed consistently low ridership, with the highest average boardings + alightings of 6.0 at 9 AM. The highest ridership on Davie Green was only 10.0 boardings + alightings, at 11 AM. Hillsboro Beach didn't reach high levels of ridership at any time, with a high of only 10.0 boardings + alightings, which occurred at 2 PM.

Figure 40. Weekday Boardings + Alightings by Hour of Day

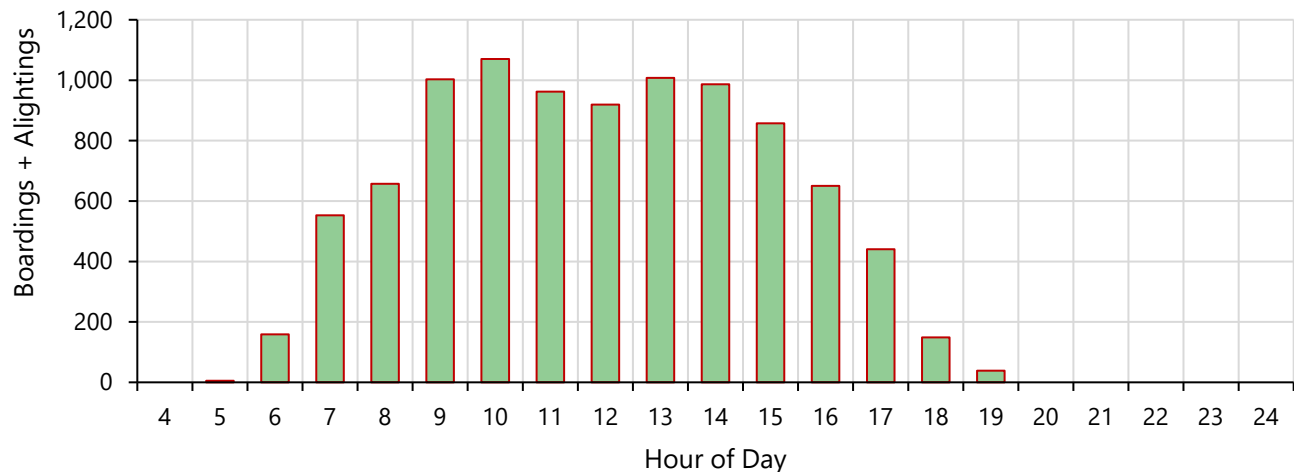


Table 14. Weekday Boardings + Alightings by Hour of the Day by Route

HOUR	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Route	AM PEAK			MIDDAY			AFTERNOON			PM PEAK			EVENING		
Coconut Creek North			27.2		8.8		6.8		27.6		28.8		8.4		
Coconut Creek South		7.6	15.4	38.2	23.6	18.8	19.4	21.4	17.8	13.4	17.6	8.2	9.0		
Coral Springs Blue				8.5	9.3	12.3	14.2	17.5	17.4	13.1	10.4	12.3	5.1		
Coral Springs Green				17.3	22.5	19.5	19.5	22.6	21.8	24.3	23.5	23.8	14.8		
Dania Beach East Blue					27.0	16.2		13.6	16.0	11.2	13.6	11.6			
Dania Beach West Green					12.4	13.6	15.2	14.8		19.6	18.0	16.4			
Davie Blue	5.4	6.6		29.4	10.2	8.8	8.0	18.6	8.0	14.6	19.8	4.0	6.6		
Davie Green			5.0	6.6		6.8	10.0			6.8	5.6		5.2	4.4	
Davie SFEC		10.8	8.4	19.6	11.6	9.4		14.0	12.8	10.0	16.4	16.0	10.8	7.4	2.8
Deerfield Beach Express 1				18.4	24.4	20.8	21.2	21.8	14.6	8.1	2.4				
Deerfield Beach Express 2				22.8	26.0	29.0	25.2	26.4	19.4	19.2	7.2				
Fort Lauderdale Beach Link						23.9	24.0	22.7	33.9	24.5	56.9	21.2			
Fort Lauderdale Downtown Link					28.0	26.2	20.2	22.8	26.4	26.4	36.8	21.2			
Fort Lauderdale Las Olas Link						6.0	12.0	8.7	10.7	12.0	4.0				
Fort Lauderdale Neighborhood Link				42.0	8.8	25.2	34.0	9.2							
Fort Lauderdale NW Community Link		18.8	50.0		40.0	38.4		40.4	7.3	46.4	30.3	6.0	27.0		
Hallandale Beach 1			24.0	26.2		29.2	31.8		28.4	34.4		33.0	19.4		
Hallandale Beach 2			18.8	21.4	25.6	34.8	29.6	30.0	26.2	35.0	26.6	25.4	15.0		
Hallandale Beach 3			19.2	31.2	22.8	23.6	26.0	23.2	24.0	28.0	22.4	20.4		11.2	
Hallandale Beach 4			28.0	20.4	14.8	19.2	17.6	16.0	15.2	14.4	15.6	14.4	11.6	9.2	
Hillsboro Beach					8.7	8.7	9.3	8.7	8.7	10.0	8.7	9.3	2.7		
Lauderdale Lakes EW					32.9	36.4	48.8	42.4	37.2	37.2		40.8	22.2	7.0	
Lauderdale Lakes NS					36.4	40.4	34.0		55.2	58.8	39.6		51.2	30.0	
Lauderhill 1		26.0	34.2	40.0	26.8	26.4	30.4	32.6	41.0	36.2	34.8	49.6	20.8		
Lauderhill 2		2.4	26.0	23.2	38.4	14.8	40.8	30.8	48.0	29.6	29.2	52.4	26.4		
Lauderhill 3		22.4	26.8	34.8	49.2	48.4	48.8	40.0	37.2	42.8	36.8	35.6	27.6		
Lauderhill 4		17.4	16.4	24.0	20.4	18.8	21.6	18.0	21.2	24.0	29.2	21.2	10.8		
Lauderhill 5				24.4	32.8	32.0	32.4	32.4	32.8	32.4	33.6	33.2	37.2	38.8	35.6
Lauderhill 6			44.0	23.6	50.8	23.2					38.8	32.4	46.0	8.4	
Lauderhill 7			28.4	11.6	10.4	7.6					15.6	20.4	10.0	5.2	
Lighthouse Point					6.0	2.4	3.6	4.8	4.0	4.8					
Margate A			14.8	21.4	21.6	27.8	24.4	26.6	21.0	21.4	11.2				
Margate C			18.8	28.8	29.6	33.8	27.0	28.6	33.2	28.6	25.6				
Margate D			7.0	11.1	10.4	11.6	17.8	19.0	13.2	12.0	11.6				
Miramar Green		31.2	3.2		2.0	1.6	2.4	1.6	0.4	3.2	0.4				
Miramar Orange		3.2			6.0					7.6			2.8		
Miramar Red		12.4	4.4		4.0		8.4		12.4	30.0	5.6				
North Lauderdale East			8.0	8.2	9.8	7.6	7.2	7.6	6.4	6.8	7.2	6.0			
North Lauderdale West			10.1	9.2	8.4	7.8	7.6	8.0	11.2	17.2	10.8	8.2			
Pembroke Pines Blue East					28.0	18.5	25.5	13.0	13.0	4.0					
Pembroke Pines Blue West				27.5	24.8	26.7	25.8	26.8	25.3		2.0				
Pembroke Pines Gold East			52.0	22.0	51.0	93.0	30.8	56.8	124.4	57.2	48.4	50.4	13.2		
Pembroke Pines Gold West			18.4	17.6	20.4	26.0	23.2	22.0		12.8	14.8	8.0	4.4	6.0	
Pembroke Pines Green			17.2	16.8	20.8	20.8	14.0	14.4	19.6	30.0	20.8	21.0	20.0	7.8	
Pompano Beach Blue					19.0	22.4	20.0	18.8	16.0	17.6	13.0				
Pompano Beach Green					28.5	27.8	17.2	13.8	15.6	17.6	18.8				
Pompano Beach Orange					16.4	16.4	13.6	11.6	8.8	9.2	4.4				
Pompano Beach Red					22.4	27.2	41.4	40.2	22.4	26.6	9.0				
Tamarac Red			27.0	10.8	40.0	46.0	33.2	34.4	35.4	35.8	24.4	20.4	12.2	13.4	
Tamarac Red Extension					11.3	14.5	18.0	22.5	16.5	11.5	7.3	7.5			

Source: APC dataset (August 2023 to January 2024)

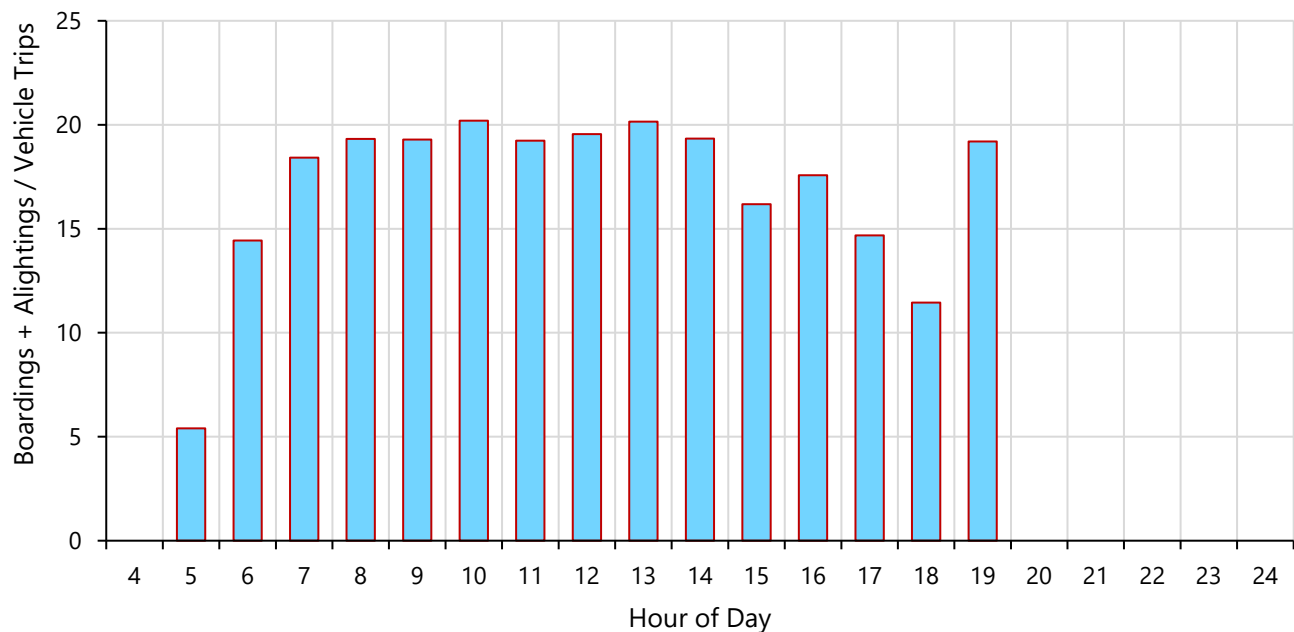
Lower  Higher

Ridership per Vehicle Trip by Time of Day

Ridership (boardings + alightings) and number of vehicle trips from the previous two sections were combined to show the productivity of service throughout the day. **Figure 41** shows the cumulative average weekday productivity of Community Shuttle service per hour. Findings are as follows:

- Ridership productivity is more uniform than ridership overall, without typical peaks observed in ridership and vehicle trips. This indicates that ridership is generally aligned with level of service provided throughout the day. However, a clear outlier from this trend is the 7 PM hour, with much higher productivity than the previous four hours of service (3 PM, 4 PM, 5 PM, and 6 PM). This suggests there should be additional service in the 7 PM hour and potentially expanded service into 8 PM or later.

Figure 41. Weekday Boardings + Alightings / Vehicle Trips by Hour of Day



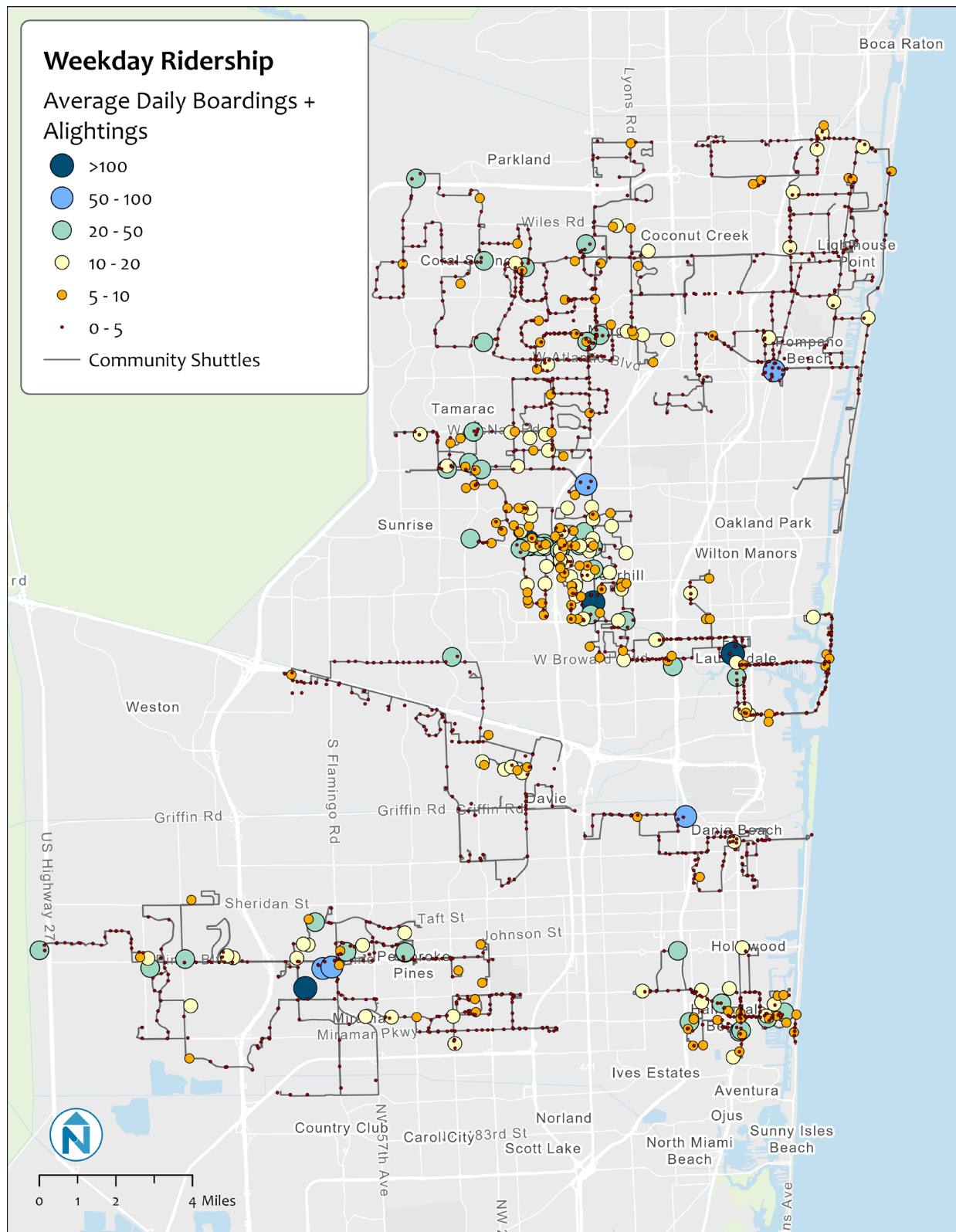
Ridership by Stop

Ridership by stop shows the geographic distribution of ridership. Ridership at the stop level is critical to understand areas of high (and low) demand, which can then be used to modify service to meet that demand with appropriate levels of service. The Community Shuttle ridership by stop dataset was compiled using ridership counts recorded by vehicle operators in October 2023. **Figure 42** shows the results of the ridership by stop dataset. Key findings from this analysis is as follows:

- A high degree of clustering of ridership exists throughout the Community Shuttle routes over Broward County. Some locations return very few riders while other areas exhibit relatively high ridership.

- Most locations in the northeastern part of the county (Pompano Beach, Deerfield Beach, Lighthouse Point and Hillsboro Beach) have very few riders. Only 10 stops in this area have ridership activity (boardings + alightings) of 10 or more. The Northeast Transit Center has the highest ridership in the northeast part of the county by a large margin, with 78 boardings + alightings daily.
- The northcentral section of the county of Coconut Creek and Margate, also has primarily low ridership. Exceptions to this trend are several stops near the US 441 and Sample Road intersection and along Coconut Creek Parkway near US 441.
- The highest ridership in northwest Broward County (Coral Springs) are along Sample Road (at University Drive with and Holiday Springs Boulevard) and the Walmart on Coral Ridge Drive north of Sawgrass Expressway.
- Community Shuttle ridership towards central Broward is higher than other parts of the county. In North Lauderdale and Tamarac ridership is clustered along McNab Road and Commercial Boulevard. Ridership is even higher just south in the areas of Lauderdale Lake and Lauderhill, including along Oakland Park Boulevard and adjacent neighborhoods. The Lauderhill Transit Center has the highest Community Shuttle routes ridership, with an average of 283.6 daily boardings + alightings.
- Fort Lauderdale has long segments of Community Shuttle service with little to no ridership, such as along Las Olas Boulevard and sections of NW 6th St, SE 17th Street, and Fort Lauderdale Beach Boulevard. Broward Central Terminal has the highest ridership of this area, with 121.8 average boardings + alightings daily.
- The Davie Community Shuttle routes have mostly low ridership stops. However, West Regional Terminal has higher ridership with 24.8 average daily boardings + alightings. The only other location with higher ridership occurs on Nova Southeastern University and Florida Atlantic University – Davie Campus, with five stops of more than 10 boardings + alightings per day.
- The Dania Beach Community Shuttle’s highest ridership occurs at FLL Airport Tri-Rail Station (56.8 boardings + alightings) and Dania Beach City Hall (18.6 boardings + alightings). All other stops have fewer than 10 boardings + alightings daily.
- The cumulative daily ridership in the Hallandale Beach Community Shuttle routes is elevated in several point locations. The highest ridership location in the area is the Publix shopping center on Hallandale Beach Boulevard, with 46.6 daily boardings + alightings. Additional locations with higher boardings + alightings are Federal Highway at SE 5th Street (38.4), Winn-Dixie shopping Center at Hallandale Beach Boulevard at SW 10th Street (36.4), Walmart at Hallandale Beach Boulevard at Three Islands Boulevard (32), and Hollywood Tri-Rail (27.2).
- The Pembroke Pines and Miramar Community Shuttle routes have clusters of ridership along Pines Boulevard. The highest point location of riders is at Century Village, with 201.8 average daily boardings and alightings. Walmart and Publix shopping center at Pines Boulevard at Flamingo (78.1 and 59.5) is the second highest ridership location. The Walmart at Pines Boulevard at 184th Street (33.6), Southwest Focal Point Senior Center stops (31.6 and 21.6), and Pembroke Lakes Mall (25.8) show higher boardings and alightings as well.

Figure 42. Weekday Community Shuttle Ridership Activity

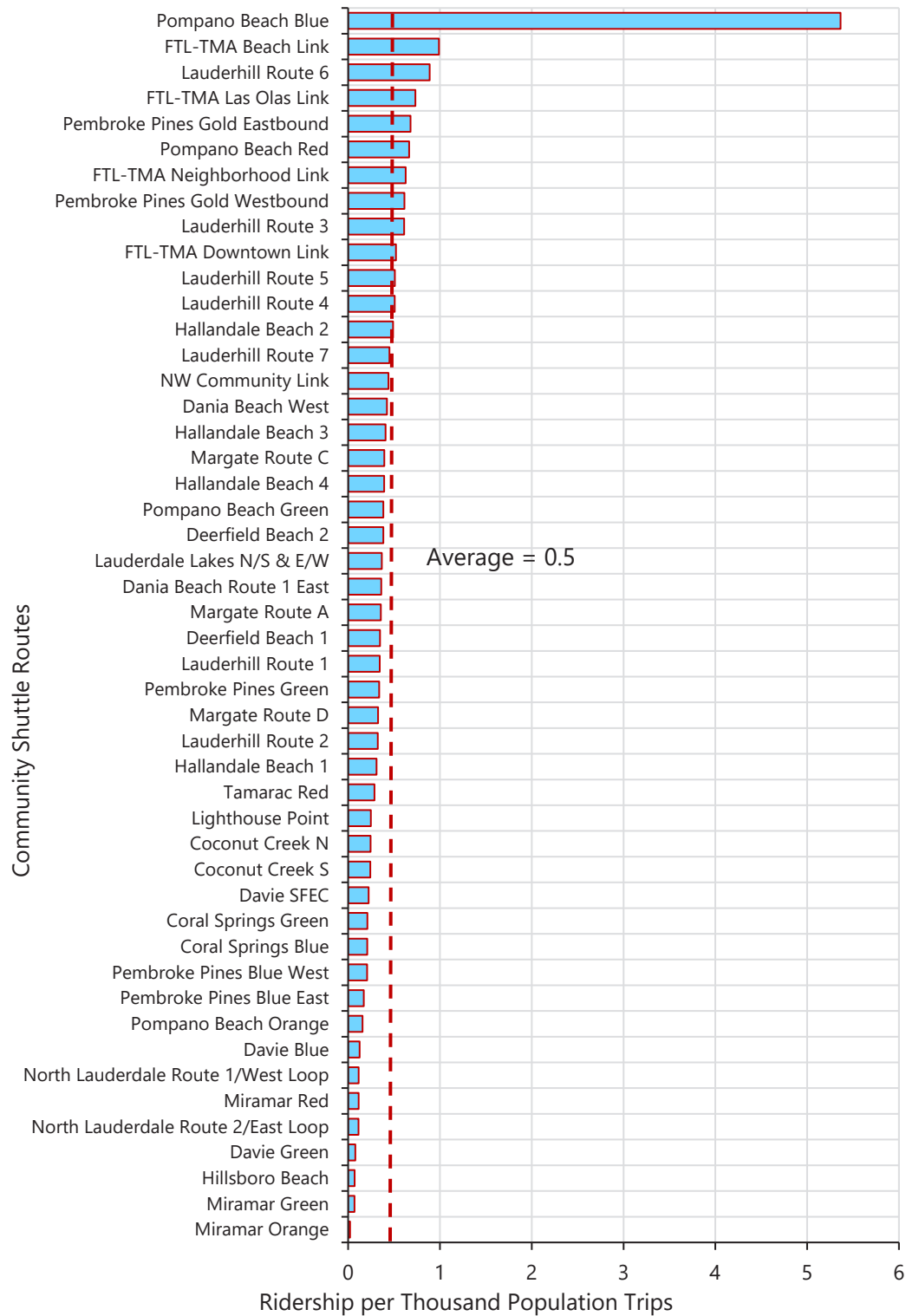


Source: Community Shuttle Ridership Reports (October 2023)

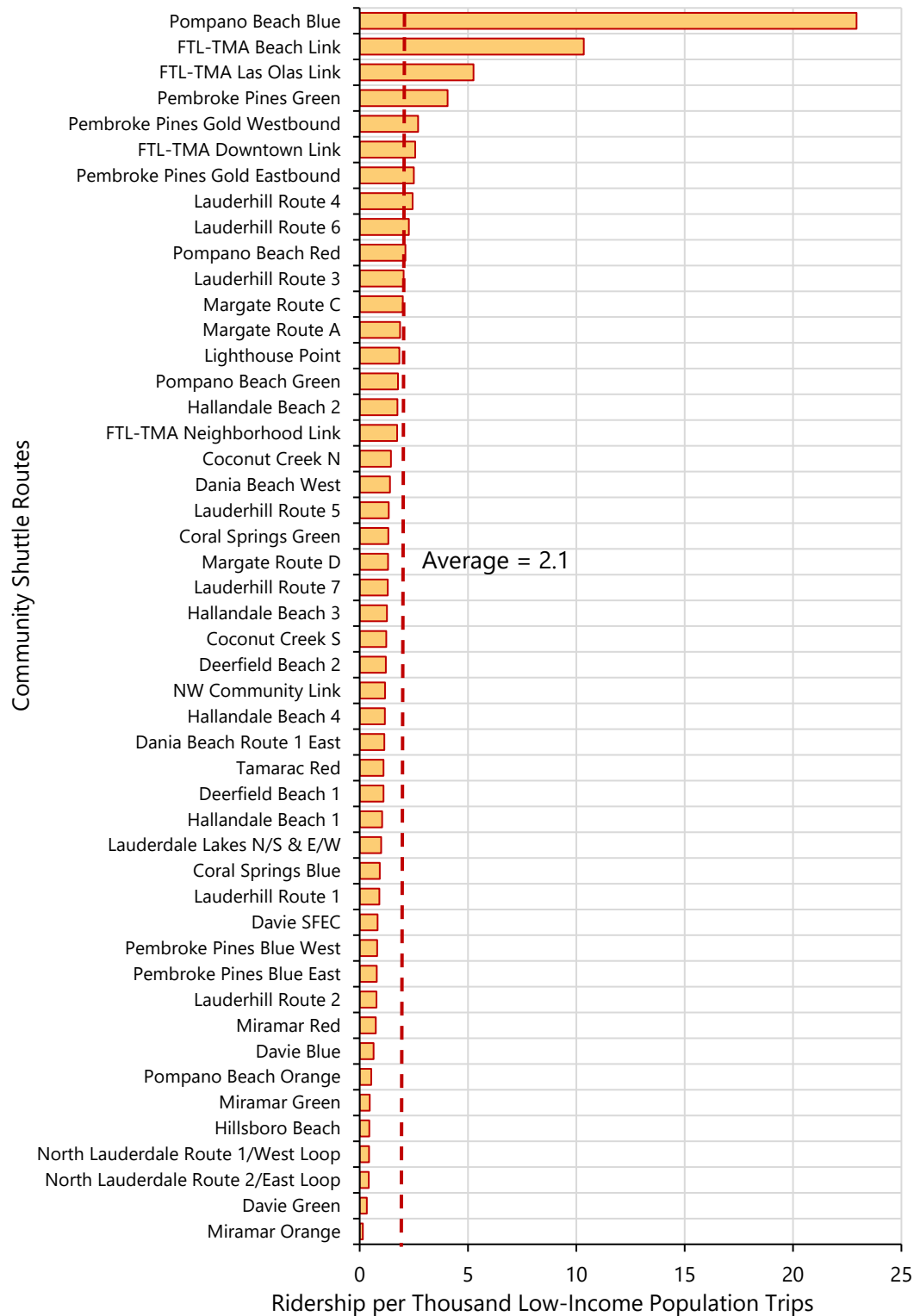
Ridership and Population Served

This section shows the results of a ridership per population served analysis for the community shuttles. Results of the same analysis for fixed routes can be found in the Fixed Route Network Assessment. Ridership is standardized by the number of trips and population with access to transit service to show the relative productivity of service. The population with access to transit service, defined as with 0.25 miles of a transit route, is multiplied by the number of scheduled trips in the month of October 2023 (Route Statistics Report) to account for the difference between levels of service. The ratio of ridership to population served gives an indication of how effective each route is in converting nearby population into transit riders. **Figure 43, Figure 44, Figure 45, and Figure 46** show the results of the ridership per population served analysis using total population, low-income population, minority population, and zero-vehicle households, respectively (refer to **Table 29** in the Appendix for exact numbers). Findings are as follows:

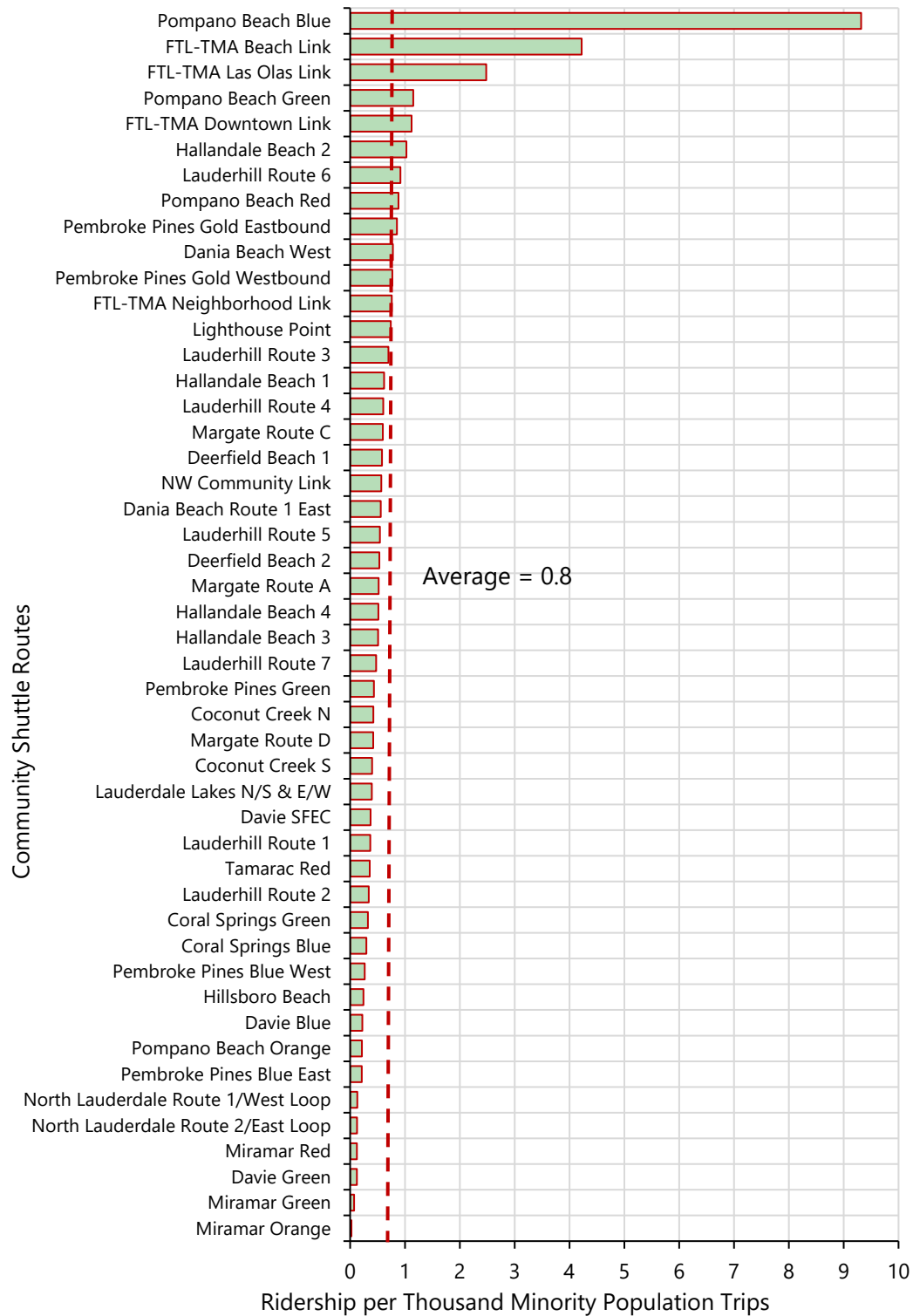
- **Figure 43** shows ridership per total population served. Pompano Beach and Pembroke Pines exhibit relatively higher ridership rates compared to others, signifying a potentially higher demand for transportation. The community shuttles in Miramar have the lowest ridership as compared to the other shuttles.
- **Figure 44** shows ridership per low-income population, revealing that Pompano Beach Blue is effective in turning low-income residents into riders. The Beach Link and Las Olas Link in Fort Lauderdale also are effective in reaching low-income population. Community shuttles in Miramar, Davie and North Lauderdale are not highly effective with regards to serving the low-income residents in the community.
- **Figure 45** shows ridership per minority population. Pompano Beach Blue and FTL-Beach Link exhibit notably higher ridership rates among minority populations, indicating the importance of these transit services in serving diverse communities and potentially bridging transportation gaps while routes like Miramar Orange and North Lauderdale Route 1/West Loop show lower ridership figures among ridership population.
- **Figure 46** shows ridership per zero-vehicle households. Pembroke Pines Green and Pompano Beach Green demonstrate significantly higher ridership rates among households with zero vehicles.

Figure 43. Ridership per Population Served by Route

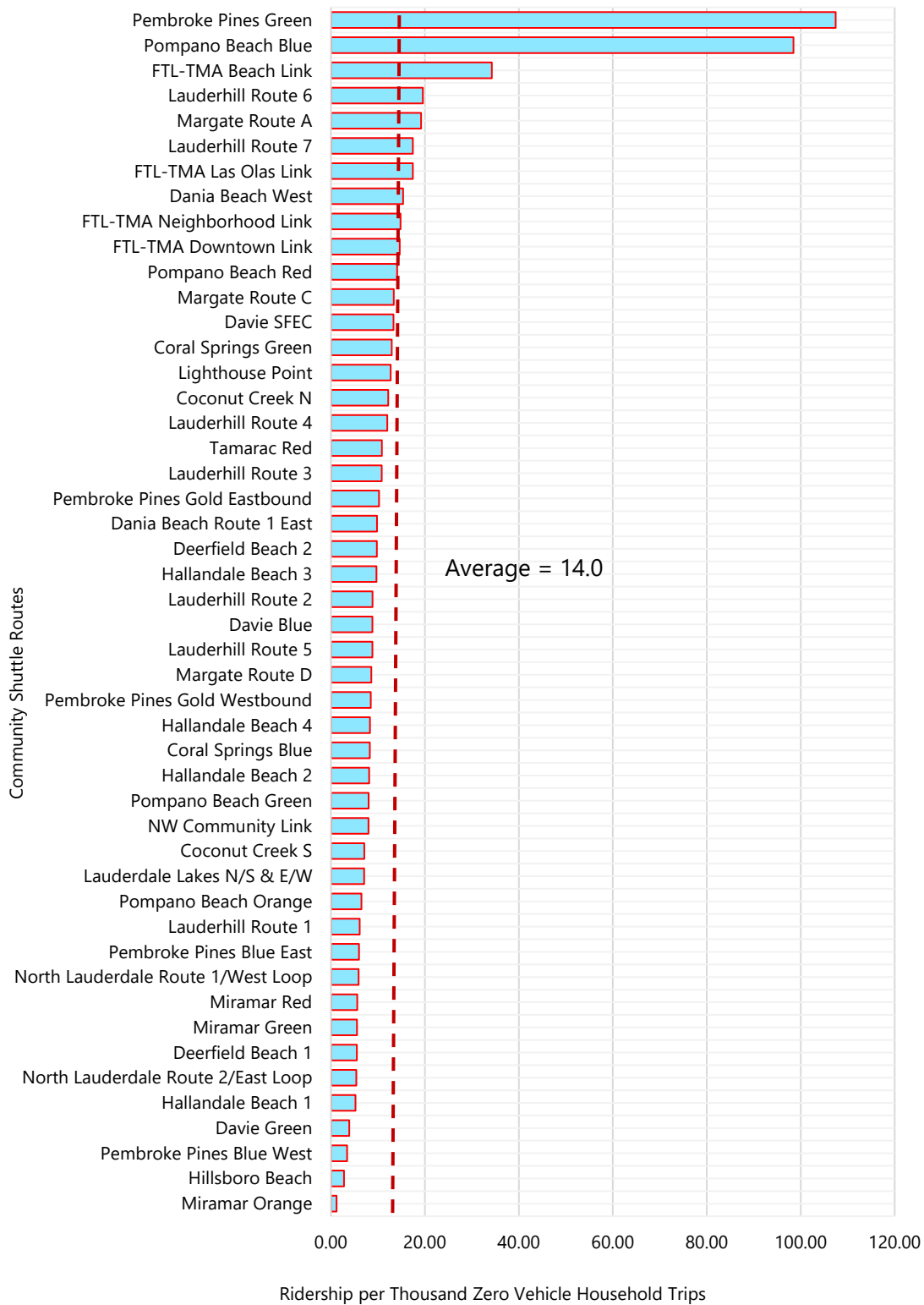
Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

Figure 44. Ridership per Low-Income Population Served by Route

Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

Figure 45. Ridership per Minority Population Served by Route

Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

Figure 46. Ridership per Zero-Vehicle Household Served by Route

Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

4 SERVICE AREA FIELD OBSERVATIONS

This section describes field observations collected Fall 2023 through Spring 2024 that typically impact transit performance. Many of these factors pertain to the conditions and characteristics of the operating environment service. This section is organized into five subsections: bus routing; operating conditions; access, egress, and maneuverability; transit center capacity; and traffic conditions.

BUS ROUTING

Route design has impacts on operational performance, which can lead to impacts on route productivity and efficiency. Route design with circuitous, out-of-direction, and loop alignments are discussed below because of the potential impact on service performance.

Circuitous / Out-of-Direction Route Alignments

Circuitous and out of direction travel can have significant impacts on the quality of service resulting in lengthy travel times and distances for bus riders. These types of service alignments result from routes designed to try to serve as many people as possible. Oftentimes, circuitous route alignments are created from adjustments over several years that collectively result in a less attractive and/or less direct service for riders.

Although no route alignment is perfect for every trip in the system, direct route paths that serve a combination of trip generators and trip attractors are preferred and result in shorter overall travel times and distances for system users. Large loop alignments (discussed in the following section) also result in lengthy and circuitous route alignments. Route distance to straight line distance (reflected in **Figure 22**) provides a measure of those routes with circuitous alignments. Routes with direct alignments fall closer to a 1.00 ratio of route miles to straight line direction miles. Those routes with ratios over 1.5 are candidates for review for more streamlined route alignment recommendations. Although circuitous route alignments slow travel times for the customer, they don't always have negative impacts on the system. Some of these alignments result from the roadway network design, while others offer value in community level circulation.

BCT routes that exhibit circuitous route alignments will be reviewed for opportunities to streamline their alignments during service recommendations.

Nine BCT routes reflect higher levels of circuitous / out-of-direction alignments, defined here as a ratio of route alignment miles divided by straight line distance of over 2.0. These routes include:

- Route 56 – 3.45 ratio
- Route 11 – 3.20 ratio
- Route 81 – 2.83 ratio
- Route 4 – 2.77 ratio
- Route 9 – 2.73 ratio
- Route 15 – 2.54 ratio
- Route 40 – 2.49 ratio
- Route 62 – 2.27 ratio
- Route 12 – 2.11 ratio

Loop Alignments

Bus route loop alignments are most common near the end of routes for use in turning buses around for the reverse trip. Some route alignments are entirely designed in a loop configuration and others are designed with mid route loop configurations. Bus route loop alignments are often designed to provide coverage to a specific area. Many transit operators only operate loop alignments in one direction versus bi-directionally.

Unfortunately, many mid route or entire route one-way loop alignments result in additional travel time for riders along the route or create longer travel times and transfers for riders with destinations somewhere along the loop alignment. These negative travel time impacts often outweigh the benefit achieved through loop alignments. Transit service planning best practices recommend, if necessary, only short loop alignments at the end of route alignments. Mid route loop alignments are discouraged as they create adverse travel time impacts for bus riders. Elimination of large (multi-mile) loop alignments may require new EOL layover facilities or route alignment modifications designed to end at an activity center or existing transit center location. Maintaining existing small end-of line loop alignments (less than a mile or two in length) may be necessary to maintain route efficiency. Under these instances, established accessible EOL restroom facilities are essential.

The BCT bus route network has a mix of mid route and end of route loop route alignments.

- Routes with mid-route loop alignments include: 56 and 81.
- Routes with Large end of route loop alignments include: 4, 6, 11, 31, 48, 55.
- Routes with Small end of route loop alignments include: 2, 34, 42, 50, 60, 62, 83, 441.

OPERATING CONDITIONS

Operating conditions can also affect service performance. In this section, two key environmental conditions are discussed at the route level: unsignalized left-turns and pedestrian accessibility.

Unsignalized Left-Turns

Transit route alignments are designed to serve rider travel needs within roadway network constraints. Roadway constraints include the geometry and dimensions of the road, one-way versus two-way traffic flow, and traffic flow management mechanisms such as traffic signals and stop signs. When designing transit service alignments, it is important to identify locations along these alignments that have the potential to increase safety risks. These include intersections in which buses are required to make left turns without a traffic signal. Avoiding or eliminating bus route travel through this type of intersection are impossible to accomplish while designing routes that serve riders needs and do so in the most direct path possible. Therefore, the goal is to reduce or eliminate left turn movements at unsignalized that present the highest safety risk while maintain those that present a low risk.

Table 15 presents all unsignalized left turns in the BCT transit system. These are identified by direction of the route and an overall safety risk has been assigned to each location. The safety risk is based on professional judgement considering traffic flow through the intersection, environment in which the intersection is located (e.g., residential neighborhood, industrial area or high traffic urban arterial roadway). Low safety risks do not

present a condition for route re-alignment consideration. Re-alignment of the route should be considered for those locations identified with Medium and High risk assessments. Those identified as Medium and High will be analyzed further during the development of route improvement recommendations.

Table 15. Unsignalized Left-Turns

Route	Direction	Location of Unsignalized Left Turn	Safety Risk
4	Northbound	NW 3 rd Avenue to NW 1 st Street (west)	Low
	Northbound	Bryan Road to Old Griffin Road (northwest)	Medium
	Southbound	Bryan Road to NW 1 st Street (east)	Low
	Southbound	NW 3 rd Avenue to W. Dania Beach Boulevard (east)	Low
	Southbound	Cambridge Street to A1A (south)	Medium
5	Eastbound / Westbound	Miramar Boulevard to Civic Center Place	Low
6	Northbound	SW 3 rd Street to SW 8 th Avenue (north)	Low
	Northbound	Hallandale Beach Boulevard to NW 7 th Avenue (north)	High
	Northbound	NW 1 st Street to NW 2 nd Avenue (north)	Low
	Northbound	Taft Street to N 23 rd Avenue (north)	Low
	Northbound	Charleston Street to J.A. Ely Boulevard / SW 22 nd Avenue (north)	Low
	Northbound	SW 5 th Street to Phippen Waiters Road (northeast)	Low
	Northbound	SW 9 th Avenue to SW 30 th Street	Low
	Northbound	SW 30 th Street to SW 8 th Avenue	Low
	Southbound	SW 28 th Street to SW 8 th Avenue	Low
	Southbound	SW 5 th Street to J.A. Ely Boulevard / SW 22 nd Avenue (south)	Low
	Southbound	Charleston Street to N 23 rd Avenue	Low
	Southbound	Taft Street to N 24 th Avenue (south)	Low
	Southbound	S 26 th Avenue to Washington (east)	Low
7	Westbound	Pines Boulevard to Broward College Main Entrance (south)	Low
9	Northbound	SW 31 st Avenue to Glendale Boulevard (west)	Low
	Southbound	Kentucky Avenue to E. Evanston Circle (east)	Low
	Southbound	E. Evanston Circle to Glendale Boulevard (east)	Low
10	Northbound	Federal Highway to SE 15 th Street (west)	Low
11	Eastbound	NW 16 th Court to NW 24 th Avenue (south)	Low
	Eastbound	NW 15 th Court to NW 27 th Avenue (south)	Low
	Eastbound	NW 27 th Avenue to NW 8 th Court (southeast)	Low
	Eastbound	NW 8 th Court to NW 8 th Street (east)	Low
	Westbound	NW 22 nd Road to NW 8 th Street (west)	Low
	Westbound	NW 15 th Court to NW 24 th Avenue (north)	Low
	Westbound	NW 16 th Ct to NW 23 rd Avenue (north)	Medium
	Westbound	Prospect Road to Prospect Road (at NW 53 rd Street)(west)	Low
	Westbound	Prospect Road to NW 33 rd Avenue (south)	Low
12	Eastbound	Cambridge Street to A1A (south)	Medium
	Westbound	N 26 th Avenue to Oakwood Boulevard (north)	Low
14	Northbound	NW 1 st Avenue to NW 4 th Street	High
	Northbound	Two left turns within Deerfield Beach Mall parking lot	High
15	Southbound	SW 19 th Street to SW 44 th Avenue (south)	Low
	Southbound	SW 25 th Street to SW 56 th Avenue (south)	Low
	Northbound	SW 24 th Street to SW 44 th Avenue (north)	Low
	Northbound	SW 25 th Street to SW 46 th Avenue (north)	Low
	Northbound	SW 19 th Street to SW 40 th Avenue (north)	Low
19	Northbound	Edgewood Parkway to Sandalfoot Boulevard (west)	Medium

Route	Direction	Location of Unsignalized Left Turn	Safety Risk
20	Northbound	Dixie Highway into Northeast Transit Center (west)	Medium
	Northbound	NW 16 th Street to NW 3 rd Terrace (northeast)	Low
	Northbound	NW 3 rd Terrace to NW 3 rd Avenue (north)	Low
	Northbound	NE 3 rd Avenue into Broward Health North	Low
22	Eastbound	SW 84 th Avenue to SW 3 rd Street (east)	Low
28	Eastbound	Exit Memorial Hospital Miramar to SW 172 nd Avenue (south)	Medium
31	Northbound	NW 1st Avenue to NW 4th Street	High
34	Eastbound	From Tri-Rail station to NW 33 rd St (east)	Low
	Eastbound	NW 33 rd Street to NW 8 th Avenue (north)	Low
	Westbound	Sample Road to NW 8 th Avenue (south)	Medium
	Westbound	Coral Ridge Drive to NW 39 th Street (west)	Low
	Westbound	NW 39 th Street to NW 124 th Avenue (south)	Low
	Westbound	NW 35 th Street to NW 24th Avenue (south)	Low
36	Eastbound	Breakers Avenue to NE 9 th Street	Low
	Westbound	NW 16 th Street to NW 47 th Avenue (south)	Low
40	Eastbound	NW 16 th Street to NW 38 th Avenue (north)	Low
42	Westbound	Dixie Highway into Northeast Transit Center (west)	Medium
50	Northbound	Dixie Highway into Northeast Transit Center (west)	Medium
	Southbound	SW 3 rd Avenue to SW 4 th Street (east)	Low
55	Westbound	W. McNab Road to Hiatus Road (south)	Low
60	Northbound	Dixie Highway into Northeast Transit Center (west)	Medium
	Northbound	Exiting NE Transit Center to MLK Jr (west)	Low
62	Northbound	Riverside Drive to Pine Ridge Drive (west)	Low
72	Westbound	NW 136 th Avenue to Green Toad Road (east)	Low
81	Eastbound	NW 49 th Avenue to NW 21 st Street (east)	Low
	Eastbound	NW 47 th Avenue to NW 16 th Street (east)	Low
	Eastbound	NW 8 th Street to NW 36 th Terrace (north)	Low
	Westbound	NW 31 st Avenue (MLK Jr Avenue) to NW 4 th Street (west)	Medium
	Westbound	NW 34 th Avenue to NW 9 th Street (west) – Roundabout	Low
	Westbound	NW 8 th Place to NW 36 th Terrace (south)	Low
	Westbound	NW 47 th Avenue to NW 21 st Street (west)	Low
83	Eastbound / Westbound	NW 99 th Avenue to St Andrews Towers	Low
	Westbound	Coral Ridge Drive to NW 39 th Street (west)	Low
	Westbound	NW 39 th Street to NW 124 th Avenue (south)	Low
	Westbound	NW 35 th Street to NW 24th Avenue (south)	Low
88	Northbound	SW 84 th Avenue to SW 3 rd Street (east)	Low

Lack of Sidewalks / Accessibility

The infrastructure supporting transit routes plays a crucial role in ensuring accessibility and promoting pedestrian safety. Sidewalks provide pedestrians with a designated space to walk, ensuring their safety by separating them from vehicular traffic. Moreover, sidewalks enhance the accessibility of transit stops, facilitating easier access for customers to and from the bus stops. As part of the evaluation of BCT service, a review of existing route alignments was conducted to identify areas lacking sidewalk access to bus stops. This analysis does not include sidewalks leading from neighborhoods to the sidewalk connected to the bus stop. Segments of routes without sidewalks along the route alignment are summarized in Table 16 below.

Table 16. Routes that lack sidewalks

Route	Segment
20	Floranada Road (NE 45 th Street), from NE 18 th Street to N Federal Highway
23	NW 4 th Street towards the Pembroke Lakes Mall
23	SW 16 th Street from Griffin Road to Stirling Road
34	NW 39 th Street
48	Century Boulevard
Dania Beach West	From SW 31 st Avenue to SW 53 rd Court to Anglers Ave
Davie Green	Reese Road
Pompano Beach Red	N Palm Aire Drive
Hillsboro Beach	Hillsboro Mile

TRANSIT ACCESS, EGRESS, AND MANEUVERABILITY

BCT operates bus routes to and through several transit centers, terminals, and major destinations throughout Broward County. These facilities provide EOL locations for operational efficiency (as turnaround locations), opportunities for off street customer transfers between BCT bus routes and community circulator routes, access to surrounding activity center development, and restroom access for BCT bus operators. Each facility varies in size (e.g., number of bus bays), access / egress, internal and external maneuverability, and pedestrian / bicycle access.

Transit Centers & Terminals

Broward Central Terminal

Broward Central Terminal is on the north side of Broward Boulevard between NW 1st Avenue and the FEC Railroad. All BCT bus routes in the immediate area serve this facility, entering from Broward Boulevard or NW 1st Ave and traveling through the terminal from south to north. All routes exit the terminal on NW 2nd Street except routes 6 and 9, which exit directly onto NW 1st Avenue southbound. Route 81 exits the terminal onto NW 2nd Street then turns south on NW 1st Avenue. There is one terminal routing pattern that draws some concern. For Routes 11, 14 and 31, buses exit the terminal onto NW 2nd Street, turn left on NW 1st Avenue and then turn left (westbound) onto NW 4th Street. The left turn westbound onto NW 4th Street is an unsignalized left turn that presents safety concerns. Traveling east from the terminal on NE 2nd Street north on North Andrews Avenue, then west on NW 4th Street eliminates this safety concern. However, this alternative route alignment does add two traffic signals with left turns and estimated 4-6 minutes to the route travel time.

West Regional Terminal

West Regional Terminal is about three quarters of a mile west of University Drive and about 1 mile northwest of the Broward Mall bus stop. This facility serves as an anchor transit center for west Broward County. All routes serving this facility traverse the local streets in a manner using signalized intersections for making left turns (e.g., NW 84th Avenue and Broward Boulevard). The facility is on Courthouse Road, a low-traffic street for most of the day, allowing bus traffic to flow unimpeded.

Northeast Transit Center

Northeast Transit Center is on the southwest corner of Martin Luther King Junior Boulevard and Dixie Highway. Bus access to the facility is from Dixie Highway (right turns into the facility) and the exit is onto Martin Luther King Junior Boulevard. Some concerns were expressed by bus operators that there is a sight line issue while exiting the transit center turning left on Martin Luther King Junior Boulevard. A potential safety concern also exists with the Route 42 westbound turning left from Dixie Highway into the transit center. This is an unsignalized left turn that presents a difficult left turn given southbound traffic volumes and right turns from Martin Luther King Junior Boulevard southbound onto Dixie Highway southbound.

Lauderhill Transit Center

Lauderhill Transit Center is on S.R. 7 between NW 12th Street and NW 16th Street at the Lauderhill Mall. There is signalized egress directly to S.R. 7. Access to the transit center is provided immediately south of the signal. All buses travel in a clockwise motion through the transit center. There are no identified safety concerns with access to and egress from the facility. Some concern was expressed by bus operators regarding a tight turning movement for 42-foot buses into the northernmost bus lane, particularly when a bus is parked in the westernmost bay.

Major Destinations

Pompano Citi Centre

Pompano Citi Centre is located at the southwest quadrant of the intersection of Copans Road and U.S 1. BCT Routes 10, 11 and 83 serve this location, however, stop locations are only located along the streets adjacent to the development. Routes 11 and 83 use the Pompano Square ring road to turn around the bus at this EOL. Both routes use the bus pull in bay on US 1/Federal Highway just south of East Copans Road as the EOL. This location does not present safety concerns as it is located outside of the travel lane. Route 10 serves this location via stops located along Federal Highway.

Broward Mall

Broward Mall has two bus stop locations, one outside the Regal Cinema served by Route 88, and the second near the mall food court entrance, served by Routes 12 and 22. Route alignments to each stop use mall roadways that do not have adjacent parking with clear paths from the mall ring road to the mall entrances and back to the ring road. No safety issues were identified at this location.

Pembroke Lakes Mall

Pembroke Lakes Mall has a transit facility adjacent to the northwest corner of the mall. BCT Routes 5, 7, 8, 16, and 23 serve this stop location. There do not appear to be any safety issues at this location as bus paths follow paths designed without adjacent parking. It is important to note BCT buses do stage in the parking area north of the stop location. This does present some safety concerns as the buses are more susceptible to interaction with cars within the parking area.

Miramar Town Center

Miramar Town Center transit stop is in the parking structure in the middle of the Town Center. BCT Routes 5 and 28 serve this location. Although the street network within the Town Center is narrow with cars parked along the curbs, there does not appear to be any safety issues with access and egress from the transit center.

Young Circle

Young Circle, located in Hollywood, is served by BCT Routes 1, 4, 7, 8, 9, and 101. There are three bus stop locations within the area served by different routes. The stop located on North 17th Avenue, behind Young Circle Shopping Plaza, is served by Route 7 and 9. The stop located on Tyler Street at Young Circle, is served by Routes 4 and 8. The third stop, located on the east side of Young Circle (in front of the Walgreens) is served by Routes 1 and 101. None of the three stop locations offer enough space to accommodate all routes serving Young Circle and do not offer long-term solutions for a transit stop on Young Circle. There are not any significant safety issues with these three stop locations, however all three present some visibility challenges with automobile traffic surrounding the stops. There is a need to find a long-term solution for a transit center in the immediate area that all routes can serve and provide connections between them and the surrounding Community Shuttle routes.

Park & Ride Facilities

Davie Park & Ride

The Davie Park and Ride is at the southeast quadrant of Davie Road and I-595. This facility is served by BCT Route 9 and 595 Express Route 114. Route 9 and southbound 114 serve the stop on the north side of the park and ride, and Route 114 northbound serves the stop on the south side. Neither bus stop location presents safety issues. Route 9 does not serve the park and ride directly on its southbound alignment but serves a stop on Davie Road near the park and ride.

Miramar Park & Ride

The Miramar Park and Ride is along a power easement between Pembroke Road and Miramar Boulevard. Bus access is provided from Hiatus Road. BCT 95 Express Routes 108 and 109 serve this facility. There are no safety concerns with the bus operations through this facility.

Miramar Regional Park & Ride

The Miramar Regional Park and Ride is in the southwestern area of the Miramar Regional Park in the northeast quadrant of Miramar Parkway and SW 172nd Avenue. This park and ride facility is served by BCT Route 7 and 95 Express Route 106 via a bus pull out bay bus stop along SW 172 Avenue. There are no safety concerns with the bus operations through this facility.

C.B. Smith Park & Ride

The C.B. Smith Park and Ride is adjacent to C.B. Smith Park in the northwest quadrant of Pines Boulevard and North Flamingo Road. The park and ride are served by BCT Route 7 and 95 Express Route 109 from a streetside bus stop with pull out bay located along Pines Boulevard. There are no safety concerns with the streetside bus bay stop location. Future opportunities should be identified to link this park and ride to I-75 express service and revisions to the park and ride to allow buses to safely turnaround within the facility to allow layover and assist in ensuring reverse trip on-time departures.

FLA Live Arena Park & Ride

The FLA Live Arena Park and Ride is at the arena parking lot's southern end. Signalized access is provided from NW 136th Avenue. BCT 595 Express Route 110 and 114 serve the facility. Upon entering the parking lot, BCT buses travel to the back side of the parking lot and follow the perimeter of the lot to the pick-up location. There is only a minor safety concern regarding the southernmost portion of the parking lot alignment that travels through a segment with angled parking. This presents a potential for cars backing out of parking spaces into the path of the bus. It does not present a significant concern with the existing parking volumes at this location but may in the future.

Regional Transit Connections

Palm Tran – Sandalfoot

BCT Route 19 provides connections to the Palm Tran Routes 91 and 92 at a bus stop on S.R. 7 immediately south of SW Sandalfoot Boulevard. This stop is in a right turn lane, also marked on the pavement as a bus stop. There are clear dash lines on the pavement to reflect the bus egresses from the stop southbound on S.R. 7. Restroom facilities are available at an adjacent Publix. Although not an ideal stop for transfer connections, it does perform this function with limited safety concerns. Opportunities for an off-street transfer facility are recommended.

Palm Tran – Camino Real

BCT Route 10 provides connections to Palm Tran Route 1, 92 and 94 at a dedicated bus pull out lane along the south side of East Camino Real near downtown Boca Raton. Restroom facilities are available at an adjacent Publix. There are no safety concerns with this location.

MDT – Aventura Mall

BCT Routes 1, 28 and 101 provide connections to Miami-Dade Transit (MDT) Routes 3, 9/9A, 95, 100, 183, 199, 203 and the Brightline Shuttle route. Restroom facilities are available and there are no safety concerns with this location.

MDT Golden Glades

The Golden Glades Park n Ride is located along S.R. 7 in the apex of US. 441 and S.R. (State Road) 9, with pedestrian connections to the Golden Glades Tri Rail Station. BCT Routes 18 and 441 provide connections to MDT Routes 75, 77 and 95. Restroom facilities are available and there are no safety concerns with this location.

TRANSIT CENTER CAPACITY ANALYSIS

Transit Center capacity is determined by the number of buses that pass through / utilize the facility as a mid-route or EOL terminus during peak hour operations. Bus bay capacity varies and is dependent on how long each bus dwells (known as recovery time or layover) in the bus bay before departing the facility. Bus routes with longer layover time at the bus bay, result in a lower number of buses that can pass through the facility during the peak hour. Bus route length strongly influences the amount of layover time assigned at each EOL location. Longer routes have longer layover time at EOLs, thus transit centers served by longer routes have less bus throughput capacity in the peak hour.

Transit center capacity can be measured in a range from a maximum capacity to a minimum capacity. These capacity bookends assume the number of buses that utilize a bus bay during the peak hour. For example, a route operating at 15-minute frequency with 10-minute layover on each trip would result in 4 bus trips using a bus bay within the peak hour. A route operating at 30-minute frequency with 25-minute layover on each trip would result in 2 bus trips using a bus bay within the peak hour. For this analysis, we have assumed 4 buses per bay / peak hour as the maximum, 2 buses per bay / peak hour as the minimum, and 3 buses per bay / peak hour as the average.

Transit Center capacity can vary between service changes because of changes in service frequency and layover time for each route in the facility. As BCT continues to advance bus route running time adjustment to maintain a high level of OTP, layover times will continue to change for those routes with running time adjustments. These changes may also result in changes to bus bay assignments at BCT transit center facilities.

Broward Central Terminal

Broward Central Terminal contains 18 independent arrival and departure sawtooth bus bays, not including Aisle D bus bays that are used for other purposes. As of March 2024, 17 bus bays are utilized by 15 bus routes, summarized in Table 17. Routes 11 and 40 operate through the facility using a bus bay for each direction of travel, while the remaining 13 routes utilize the facility as an EOL terminus with one bus bay assigned per route.

Assuming all bus bays are available for use during a peak hour of operation, maximum, average, and minimum facility capacity is listed below.

- Maximum facility capacity at 4 buses x 18 bus bays = 72 buses / hour

- Average facility capacity at 3 buses x 18 bus bays = 54 buses / hour
- Minimum facility capacity at 2 buses x 18 bus bays = 36 buses / hour

As of March 2024, BCT operates a maximum of 38 peak hour buses through the Broward Central Terminal. Based on average facility capacity, the terminal is about 70% utilized. Although facility capacity can vary based on route service frequencies and layover times, this facility does have capacity for future service expansion.

Table 17. Routes Serving Broward Central Terminal

Route (direction)	Weekday Peak Frequency (minutes)	Weekday Maximum Buses / Peak Hour
1	23	3
US 1 Breeze	29	3
6	51	2
9	55	1
10	30	3
11 East	52	2
11 West	52	2
14	27	2-3
20	50	1-2
22	22	3
30	30	2
31	33	2
40 East	27	2
40 West	27	2
50	33	2
60	33	2
81	33	2
Total		36-38

Northeast Transit Center

The Northeast Transit Center contains 5 independent arrival and departure sawtooth bus bays within the facility and a linear bus bay adjacent to the facility on Martin Luther King Jr. Boulevard with a capacity of at least two buses. As of March 2024, all bus bays are utilized by the 4 bus routes in Table 18. All routes operate through the facility using a bus bay or street side bus bay for each direction of travel.

Assuming all bus bays are available for use during a peak hour of operation, maximum, average, and minimum facility capacity is listed below.

- Maximum facility capacity at 4 buses x 7 bus bays = 28 buses / hour
- Average facility capacity at 3 buses x 7 bus bays = 21 buses / hour
- Minimum facility capacity at 2 buses x 7 bus bay = 14 buses / hour

As of March 2024, BCT operates a maximum of 16 peak hour buses through the Northeast Transit Center. Based on average facility capacity, the terminal is about 95% utilized. Although facility capacity can vary based

on route service frequencies and layover times, and the Pompano Community Shuttle Bus routes run very infrequently, this facility does have some limited capacity for future service expansion.

Table 18. Routes Serving Northeast Transit Center

Route (direction)	Weekday Peak Frequency (minutes)	Weekday Maximum Buses / Peak Hour
20 North	50	1-2
20 South (on MLK)	50	1-2
42 East (on MLK)	52	2
42 West	52	2
50 North	33	2
50 South	33	2
60 North	33	2
60 South (on MLK)	33	2
Pompano Community Shuttle Bus (Orange, Blue, Green, and Red)	60	4
Total		18-20

West Regional Terminal

The West Regional Terminal contains 6 bus bays within the facility and an informal bus stop adjacent to the facility on Courthouse Road for bus layovers. As of March 2024, at least four bus bays are utilized by the 4 bus routes in Table 19, with a separate BCT route and the Davie Community Shuttle serving the on-street stop. All routes operate through the facility using an assigned bus bay or street side bus bay.

Assuming all bus bays are available for use during a peak hour of operation, including the streetside bus stop, maximum, average, and minimum facility capacity is listed below.

- Maximum facility capacity at 4 buses x 7 bus bays = 28 buses / hour
- Average facility capacity at 3 buses x 7 bus bays = 21 buses / hour
- Minimum facility capacity at 2 buses x 7 bus bay = 14 buses / hour

As of March 2024, BCT operates a maximum of 18 peak hour buses through the West Regional Terminal. Based on average facility capacity, the terminal is about 86% utilized. Although facility capacity can vary based on route service frequencies and layover times, this facility does have some minimal capacity for future service expansion.

Table 19. Routes Serving West Regional Terminal

Route (direction)	Weekday Peak Frequency (minutes)	Weekday Maximum Buses / Peak Hour
2 North	24	3
2 South	24	3
22 East	22	3
22 West	22	3
30 (on Courthouse Road)	30	2
81	33	2
88 North	50	1
88 South	50	1
Total		18

Lauderhill Transit Center

The Lauderhill Transit Center contains 10 independent arrival and departure sawtooth bus bays. As of March 2024, all bus bays are utilized by 7 BCT bus routes and Lauderhill community shuttle bus routes. Routes 36 and 81 operate through the facility using a bus bay for each direction of travel, while the remaining 3 BCT routes utilize the facility as an EOL terminus with one bus bay assigned per route.

Assuming all bus bays are available for use during a peak hour of operation, maximum, average, and minimum facility capacity is listed below.

- Maximum facility capacity at 4 buses x 10 bus bays = 40 buses / hour
- Average facility capacity at 3 buses x 10 bus bays = 30 buses / hour
- Minimum facility capacity at 2 buses x 10 bus bays = 20 buses / hour

As of March 2024, BCT operates a maximum of 23 peak hour buses through the Lauderhill Transit Center. Based on average facility capacity, the terminal is about 77% utilized. Although facility capacity can vary based on route service frequencies and layover times, this facility does have capacity for future service expansion.

Table 20. Routes Serving Lauderhill Transit Center

Route (direction)	Weekday Peak Frequency (minutes)	Weekday Maximum Buses / Peak Hour
18	19	3
19	21	3
36 East	25	3
36 West	25	3
40	27	2-3
81 East	33	2
81 West	33	2
Lauderhill Community Shuttle 1	60	1
Lauderhill Community Shuttle 5	60	1
Lauderhill Community Shuttle 6	60	1
Lauderhill Community Shuttle 7	60	1
Total		22-23

OBSERVED TRAFFIC CONDITIONS

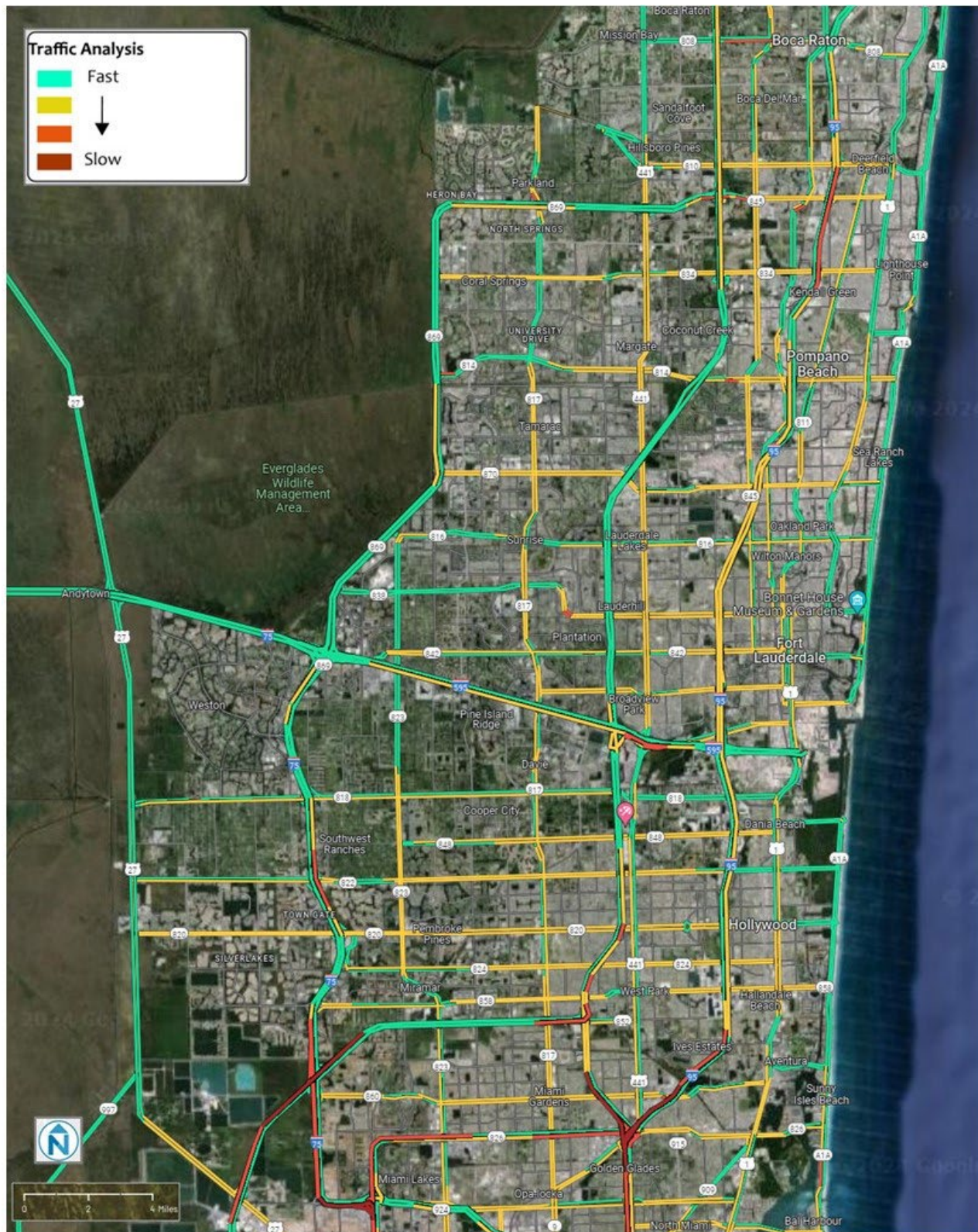
This section presents an analysis of traffic conditions on major roads and arterials in Broward County relevant to BCT. This assessment aims to provide a comprehensive overview of the current traffic flow, identifying potential bottlenecks, congestion points, and areas of concern. An understanding of traffic dynamics provides opportunities to optimize transit routes for enhanced operational efficiency and effectiveness. Three time periods are analyzed: AM peak at 8am, midday at 12pm and, and PM peak at 4 pm. **Figure 47, Figure 48 and Figure 49** show the traffic conditions during AM Peak, Midday and PM Peak, respectively.

The fast flow means fast moving traffic, and this usually indicates that traffic is flowing at or near the posted speed limit. Moderate traffic, which are the segments shown in yellow, suggests that traffic is moving slower than normal but still at a reasonable speed. The segment shown in red indicates slow moving traffic where the traffic is significantly slower than normal, often due to congestion or an incident. Lastly, the dark red shows slow or stopped traffic. This suggests severe congestion or a standstill.

During the morning peak hours, several corridors experience moderate traffic, including US 441, I-95, Commercial Boulevard, I-595, and the Sawgrass Expressway. However, certain segments face slower-moving traffic, notably I-95 between Hillsboro Boulevard and Sample Road in Deerfield Beach, and S.R 869 between US 441 and I-95 in Deerfield. Meanwhile, the Florida Turnpike and State Road A1A maintain a free-flowing traffic pattern.

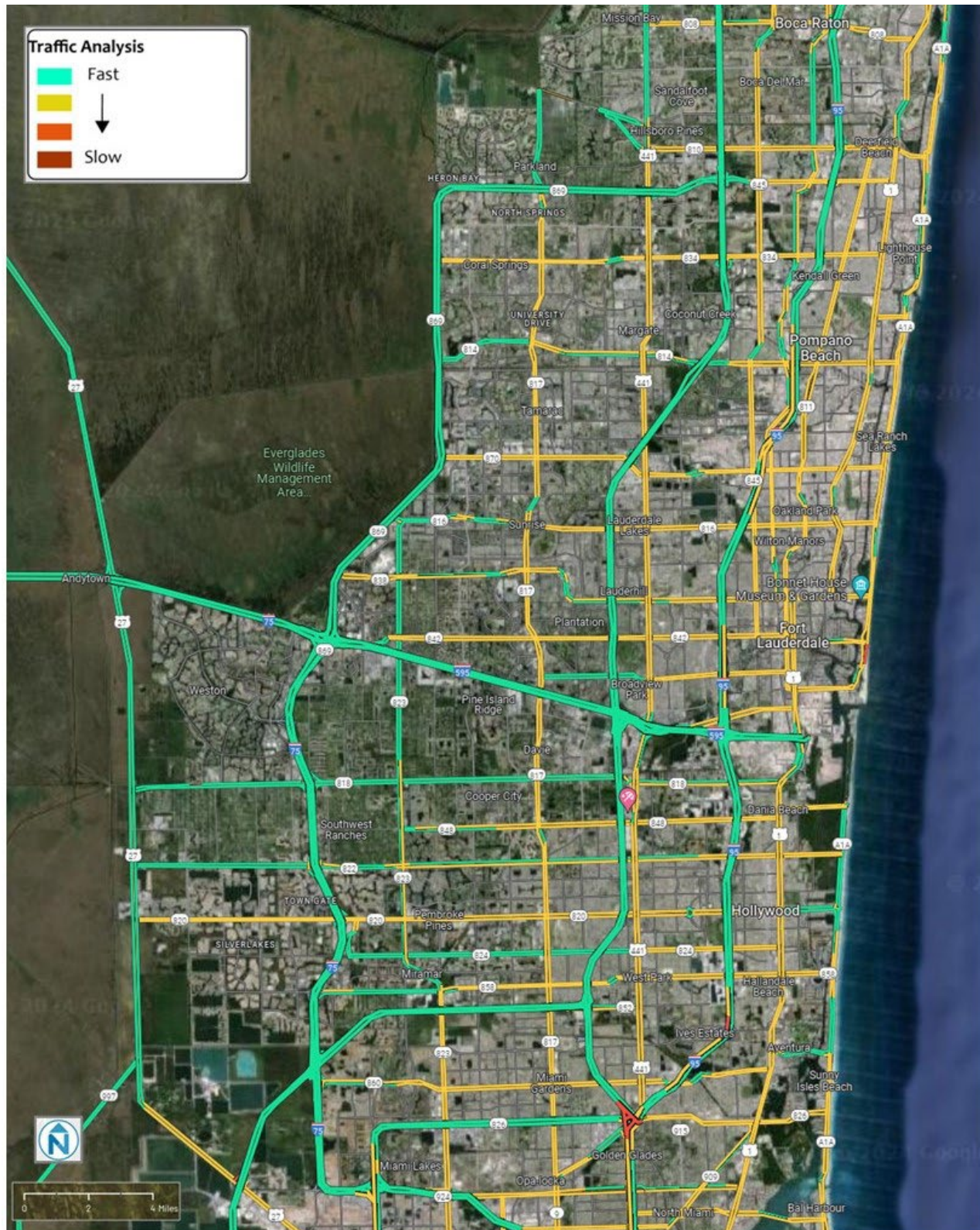
In the midday period, the Sawgrass Expressway, Florida Turnpike, and South I-95 continue to offer free-flowing traffic, while all other segments of the road network experience moderate traffic. During PM peak, notable areas with slower-moving traffic include I-95 between Hillsboro Boulevard and Sample Road in Deerfield Beach, South Fort Lauderdale Beach Boulevard, and Southeast 17th Street in Fort Lauderdale. Like AM peak, the Sawgrass Expressway, Florida Turnpike, and South I-95 maintain a free-flowing traffic pattern.

Figure 47. AM Peak Traffic Condition



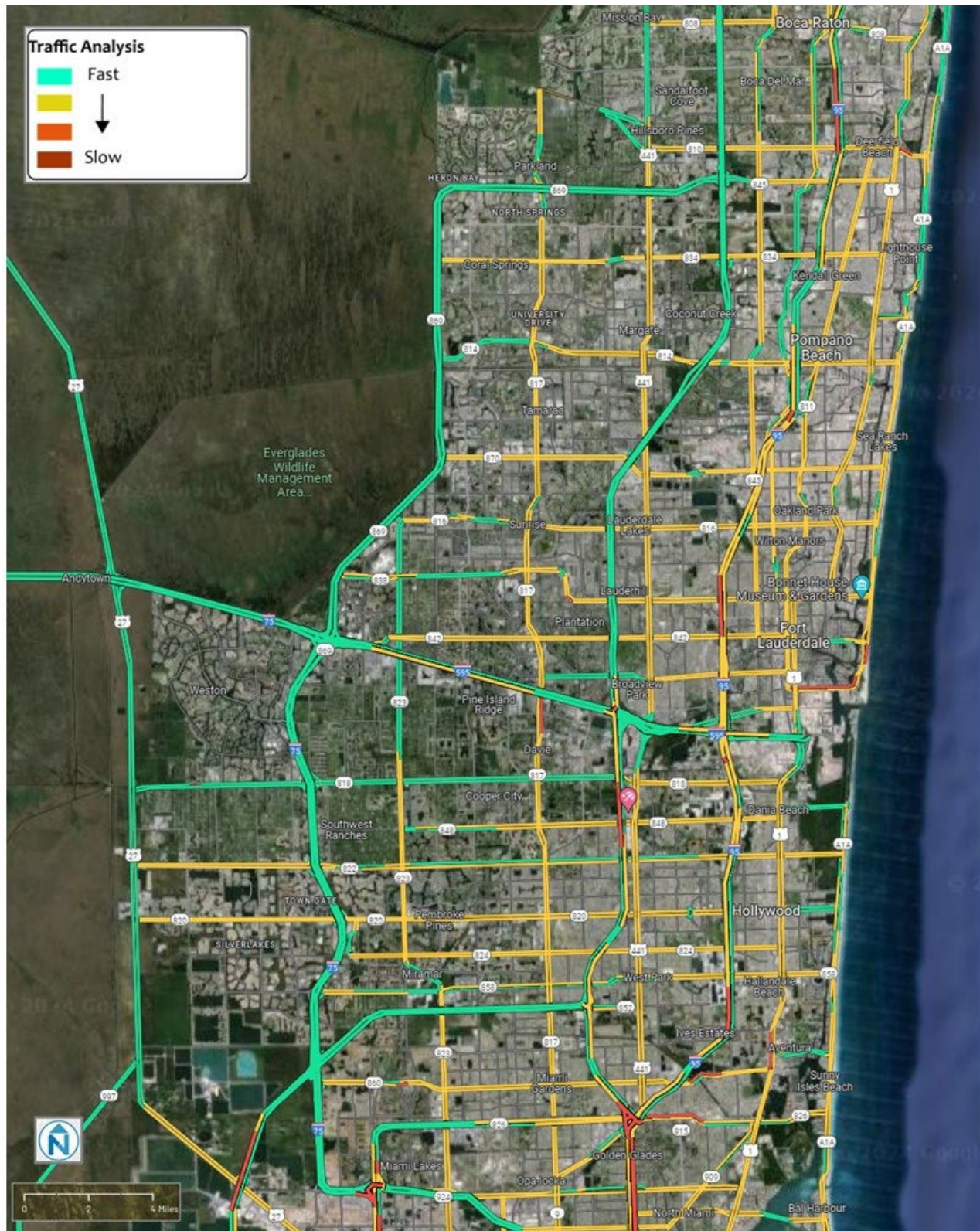
Source: GoogleMaps Historical dataset (Wednesday at 8am)

Figure 48. Midday Traffic Condition



Source: GoogleMaps Historical dataset (Wednesday at 12pm)

Figure 49. PM Peak Traffic Condition



Source: GoogleMaps Historical dataset (Wednesday at 4pm)

5 APPENDIX

OPERATING STATISTICS

Table 21. Weekday Operating Statistics

Route	Span of Service	Peak Vehicles	Peak Headway	Speed (MPH)	One-Way Trips	Revenue Hours	Revenue Miles
1	4:53 AM - 12:48 XAM	8	23	13	94	129.2	1,425.10
2	5:00 AM - 1:12 XAM	17	24	13	98	209.8	2,420.10
4	5:15 AM - 11:25 PM	4	40	15	54	66	825
5	5:36 AM - 10:25 PM	4	46	13	42	57.8	661.9
6	5:03 AM - 12:01 AM	4	51	13	46	69.6	812.2
7	4:56 AM - 11:33 PM	9	28	14	79	110.5	1,236.90
8	6:40 AM - 10:53 PM	3	43	17	43	45.2	576.1
9	5:23 AM - 10:20 PM	4	55	14	39	64.7	801.8
10	5:05 AM - 10:09 AM	7	30	16	76	106.8	1,371.80
11	4:48 AM - 12:21 AM	5	52	13	45	91	1,070.00
12	4:50 AM - 11:42 PM	5	40	17	59	90.4	1,215.00
14	4:44 AM - 12:19 AM	7	27	14	86	113.9	1,314.40
15	5:50 AM - 10:09 AM / 2:50 PM - 7:09 PM	2	65		16	16.9	253.8
16	5:25 AM - 11:02 PM	3	46	18	46	50.7	722.6
18	5:10 AM - 12:56 AM	11	19	14	107	151.6	1,727.90
19	4:34 AM - 1:28 AM	9	21	13	109	148.1	1,620.80
20	4:55 AM - 9:50 PM	3	50	15	39	47.7	552.2
22	4:50 AM - 12:05 XAM	10	22	15	94	112.1	1,320.00
23	6:10 AM - 10:20 AM / 3:10 PM - 7:40 PM	3	44		21	22.1	395.4
28	5:00 AM - 1:18 XAM	8	32	15	80	148.9	1,889.50
30	6:00 AM - 10:54 PM	4	30	15	65	62.3	659.2
31	5:25 AM - 12:22 XAM	6	33	15	66	103.4	1,283.40
34	5:00 AM - 11:01 PM	7	23	14	75	82.4	993.4
36	5:00 AM - 12:41 XAM	9	25	11	93	157.5	1,594.70
40	5:30 AM - 11:03 PM	7	27	12	71	96.6	961
42	5:13 AM - 11:03 PM	3	52	13	45	51.5	573.4
48	5:30 AM - 9:24 PM	3	35	15	54	46.2	520.8
50	5:00 AM - 11:29 PM	6	33	12	69	101.3	1,035.50
55	4:51 AM - 11:39 PM	5	36	17	65	87.5	1,195.40
56	6:30 AM - 7:07 PM	2	45		33	24.5	249
60	5:15 AM - 11:29 PM	6	33	14	67	97	1,121.80
62	4:53 AM - 11:54 PM	7	33	16	68	121.6	1,680.00
72	4:45 AM - 1:27 XAM	10	20	13	111	164	1,761.20
81	4:35 AM - 12:21 XAM	8	33	14	69	121	1,432.50
83	5:38 AM - 9:37 PM	5	46	17	43	46.1	623.9
88	5:10 AM - 11:38 PM	5	50	18	42	51.2	709.9
101	4:55 AM - 9:27 PM	6	29	15	73	77.4	936.3
106	5:10 AM - 9:19 AM / 3:10 PM - 9:09 PM	6	28	27	32	35.6	804.3
108	5:20 AM - 8:50 AM / 3:05 PM - 8:43 PM	6	26	23	29	30.5	589.6
109	5:30 AM - 9:36 AM / 3:20 PM - 8:04 PM	8	30	19	20	29.3	534.6
110	5:10 AM - 9:26 AM / 3:00 PM - 7:50 PM	6	30	30	16	23.7	665.2
114	5:00 AM - 9:20 AM / 3:15 PM - 9:08 PM	8	25	33	31	40.3	1,163.10
441	4:51 AM - 9:26 PM	8	32	15	62	119.8	1,608.90

Source: Route Statistics Report (October 2023)

Lower  Higher

Table 22. Saturday Operating Statistics

Route	Span of Service	Peak Vehicles	Peak Headway	Speed (MPH)	One-Way Trips	Revenue Hours	Revenue Miles
1	5:00 AM - 12:48 XAM	8	22	13.88	94	128.2	1,446.80
2	5:00 AM - 12:47 XAM	8	34	14.87	68	135.7	1,754.30
4	6:00 AM - 11:25 PM	3	56	15.7	43	50.8	653.2
5	6:45 AM - 10:06 PM	3	49	14.22	37	43.7	501.8
6	5:20 AM - 11:24 PM	3	60	13.88	37	50.6	646.2
7	5:00 AM - 11:28 PM	8	30	15.07	72	94.9	1,141.10
8	6:40 AM - 9:46 PM	3	42	18.06	42	43.1	563.8
9	5:50 AM - 10:46 PM	4	47	16.25	42	63.1	872.2
10	5:10 AM - 11:33 PM	6	31	16.32	71	97	1,280.90
11	4:50 AM - 11:58 PM	5	50	13.76	48	90.3	1,113.80
12	5:04 AM - 11:37 PM	4	48	17.08	47	69	978.6
14	5:12 AM - 11:23 PM	4	40	14.25	56	69.5	850.1
16	6:05 AM - 10:36 PM	3	45	19.07	43	46.6	675.4
18	5:10 AM - 12:34 XAM	7	25	14.55	87	115.5	1,406.10
19	5:01 AM - 12:33 XAM	9	19	13.06	96	129.4	1,422.10
20	5:50 AM - 9:22 PM	3	50	14.72	36	44.2	509.9
22	5:10 AM - 11:49 PM	10	30	16.07	58	73.8	974.9
28	5:25 AM - 12:40 XAM	7	32	15.65	72	125.8	1,700.20
30	6:00 AM - 10:54 PM	3	33	16.66	60	46.8	608
31	5:26 AM - 12:05 XAM	6	30	17.04	63	86.6	1,196.70
34	5:40 AM - 10:45 PM	3	43	15.59	46	47.7	609.9
36	5:26 AM - 12:17 XAM	7	30	12.12	71	114.3	1,220.50
40	5:30 AM - 11:01 PM	6	30	12.79	66	87.2	899.4
42	5:20 AM - 10:46 PM	3	46	14.29	45	50.4	573.4
48	6:05 AM - 9:21 PM	3	35	16.72	52	44.2	501
50	5:00 AM - 10:55 PM	4	40	14.6	52	68.3	780.3
55	5:40 AM - 11:39 PM	5	30	19.2	67	82.6	1,248.20
60	5:19 AM - 11:24 PM	4	40	14.81	53	68.6	886.1
62	5:57 AM - 11:23 PM	7	30	16.56	66	111.6	1,606.80
72	5:00 AM - 12:51 XAM	10	18	13.54	107	152.4	1,715.60
81	5:05 AM - 11:58 PM	6	36	14.47	64	107.2	1,329.40
83	6:12 AM - 8:48 PM	2	60	18.85	30	29.1	435.8
88	6:30 AM - 11:04 PM	3	48	18.53	39	46.1	659.6

Source: Route Statistics Report (October 2023)

Lower  Higher

Table 23. Sunday Operating Statistics

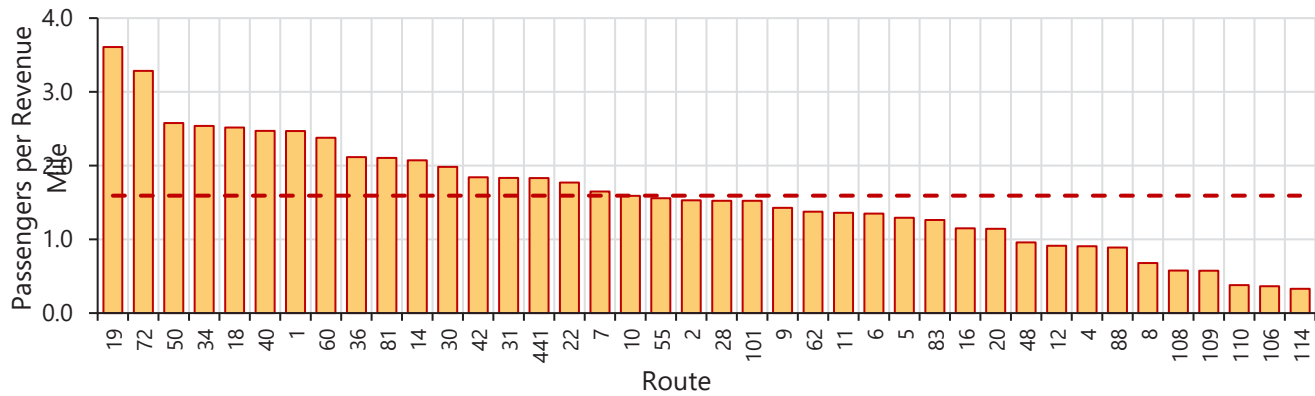
Route	Span of Service	Peak Vehicles	Peak Headway	Speed (MPH)	One-Way Trips	Revenue Hours	Revenue Miles
1	5:46 AM - 10:43 PM	6	30	13.82	65	90	1,000.20
2	6:40 AM - 10:42 PM	5	51	15.22	41	76.8	1,030.10
4	7:45 AM - 10:44 PM	3	50	15.41	35	42.4	537.9
5	8:00 AM - 8:53 PM	2	62	16.51	26	25.7	352.2
6	8:20 AM - 10:04 PM	3	57	14.54	28	36.9	490.1
7	8:37 AM - 9:25 PM	5	28	15.68	47	57.3	754.6
8	7:05 AM - 9:42 PM	3	42	15.81	40	41.6	536.9
9	8:30 AM - 8:12 PM	3	60	16.49	22	32.3	469.8
10	8:05 AM - 10:23 PM	4	45	16.55	37	52	675.5
11	6:55 AM - 10:07 PM	5	51	13.26	36	70.6	840.7
12	6:15 AM - 10:30 PM	4	46	16.28	41	60	835.6
14	7:41 AM - 9:05 PM	3	53	13.94	30	37.9	459.7
16	7:05 AM - 10:09 PM	3	45	19.02	39	42.9	612.6
18	6:00 AM - 12:03 XAM	5	32	15.29	67	84.4	1,084.40
19	5:37 AM - 12:31 XAM	8	19	14.68	90	109.5	1,342.00
20	9:35 AM - 8:06 PM	3	50	14.79	24	29	339.9
22	7:30 AM - 9:51 PM	7	30	17.05	50	59.4	844
28	7:45 AM - 9:47 PM	5	43	16.14	37	63.5	882.3
30	9:30 AM - 7:23 PM	2	46	17.96	26	19.7	265.8
31	6:30 AM - 11:01 PM	4	40	17.82	47	59.3	863.5
34	7:55 AM - 8:50 PM	3	41	16.47	35	35.2	465.1
36	6:42 AM - 10:13 PM	7	30	11.87	60	97.6	1,013.10
40	6:40 AM - 8:27 PM	4	40	13.12	40	50.9	533.5
42	8:38 AM - 8:38 PM	2	63	15.38	24	23.8	301.4
50	7:38 AM - 9:30 PM	3	50	14.37	32	39.2	480.2
55	7:00 AM - 10:38 PM	4	38	20	50	59.1	919.5
60	9:00 AM - 9:39 PM	3	60	14.66	24	34.3	393.2
62	6:40 AM - 10:48 PM	6	33	17.43	55	88.8	1,363.70
72	7:17 AM - 10:11 PM	8	21	13.95	74	99.3	1,180.70
81	7:45 AM - 10:31 PM	4	52	14.68	33	54.1	687
83	9:00 AM - 7:48 PM	2	60	18.97	22	21.5	322.2
88	6:50 AM - 10:16 PM	3	48	18.65	38	44.3	643.1

Source: Route Statistics Report (October 2023)

Lower  Higher

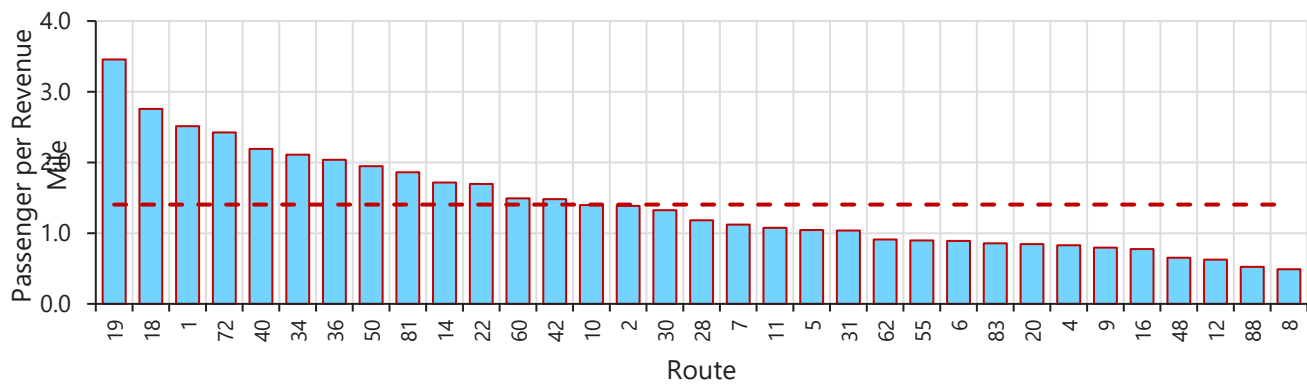
RIDERSHIP PER REVENUE MILE

Figure 50. Weekday Passengers per Revenue Mile



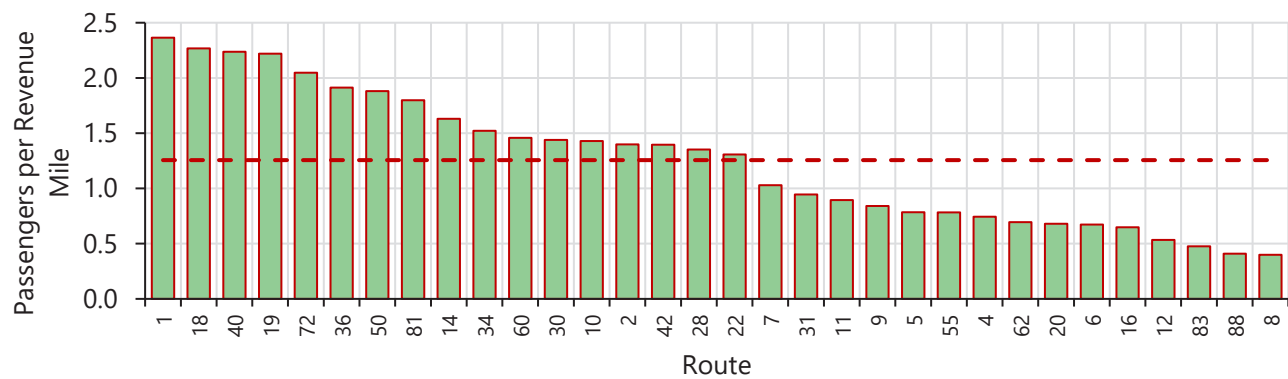
Source: BCT Monthly Ridership Report (October 2023)

Figure 51. Saturday Passengers per Revenue Mile



Source: BCT Monthly Ridership Report (October 2023)

Figure 52. Sunday Passengers per Revenue Mile



Source: BCT Monthly Ridership Report (October 2023)

PRODUCTIVITY BY TIME OF DAY

Table 24. Average Load by Route by Hour

HOUR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ROUTE	EARLY AM		AM PEAK			MIDDAY			AFTERNOON			PM PEAK			EVENING			NIGHT			
REGULAR																					
1	3	10	17	15	14	12	13	14	13	13	17	17	19	16	11	11	12	12	10	7	
2		9	12	11	9	8	9	8	9	8	11	11	11	9	7	6	5	4	4	3	2
4		2	3	4	4	3	2	3	4	4	4	5	5	5	3	2	2	2	2		
5		9	9	9	8	6	5	6	4	5	6	8	7	9	5	4	3	1			
6		8	11	9	7	7	4	6	8	7	8	8	13	7	7	4	3	2	0	0	
7	5	6	14	13	8	8	7	7	7	7	12	13	13	11	9	4	4	3	2		
8			7	4	3	3	2	2	3	2	4	5	4	3	2	2	1	1	1		
9		6	10	8	6	5	7	6	6	7	9	8	12	9	5	4	3	4			
10		7	14	13	12	11	10	10	9	12	11	16	11	12	10	8	6	5	5	4	
11	4	7	9	9	7	5	6	5	6	9	8	13	10	7	5	5	3	3	2	2	
12	0	3	5	5	5	4	4	4	3	4	5	6	7	4	3	3	1	2	2		
14	8	13	17	13	12	9	9	9	11	11	11	14	15	15	9	6	4	4	3	3	
15		2	5	2	3	1					3	2		2	1						
16		5	10	9	6	5	3	4	4	4	6	8	9	8	5	4	2	1	2		
18		19	20	18	13	12	11	11	11	12	15	15	18	15	13	9	11	11	10	5	5
19	8	16	21	19	16	15	13	16	18	18	17	20	25	21	14	10	11	11	7	4	3
20	5	5	6	7	5	5	5	5	5	4	6	6	7	6	5	4	2	2			
22	8	8	9	11	11	9	15	12	10	11	11	13	12	16	10	5	7	7	4	3	
23			4	5	5	3						5	5	5	5						
28		11	15	14	11	8	9	9	10	11	12	14	15	16	10	5	6	3	3	2	
30			11	12	7	7	7	7	6	7	11	9	12	9	8	6	4	3	5		
31		13	12	11	9	7	7	8	9	13	11	12	12	10	7	4	4	3	3	4	
34		12	15	8	6	7	7	7	9	9	11	11	11	9	8	7	5	5	4		
36		8	13	9	8	8	7	8	9	10	13	13	14	12	7	5	5	6	4	7	
40		17	16	11	11	9	8	8	10	11	10	15	15	13	8	6	5	7	4		
42		9	10	8	6	6	5	6	6	8	9	11	13	10	7	4	4	3	2		
48		3	4	5	4	3	3	3	3	3	5	5	5	4	3	2	2				
50		16	17	16	11	9	9	10	11	12	13	17	17	14	10	8	5	5	4		
55	3	6	10	12	7	6	6	6	6	7	8	11	9	8	6	3	3	3	3		
56			2	2	3	2	3	3	3	4	3	4	3	2	1						
60		12	14	11	7	8	9	11	12	13	12	16	14	11	8	4	4	3	3		
62	7	7	10	10	6	5	4	5	6	7	7	8	9	7	6	4	3	2	2		
72	13	13	17	15	13	13	14	14	13	15	16	18	19	17	12	8	8	9	9	5	2
81	13	11	11	11	11	8	8	10	10	12	10	14	14	13	8	7	5	6	7	9	
83		8	9	7	6	4	4	4	4	4	6	7	7	8	5	4	2				
88		1	7	5	5	4	3	4	4	4	6	5	7	5	4	3	4	3	3		
BREEZE																					
101	3	10	15	13	9	7	6	8	7	9	12	15	14	14	11	7	7				
441	20	22	23	15	13	8	10	10	11	14	13	20	19	18	12	7					
EXPRESS																					
106		13	9	4	3							14	13	6	5	5	1				
108		17	15	11								17	11	9	4	3	5				
109		8	8	6	5								13	10	6						
110		5	8	4								6	9	8	4						
114		15	11	5	8							21	14	5	4	7	3				

Source: APC dataset (August 2023 to January 2024)

Lower  Higher

WEEKDAY SERVICE EFFICIENCY

Table 25. Route Directness and Stop-Spacing

Route ID	Actual Distance (miles)	Straight line distance	Actual to Straight Line Ratio	Number of Stops	Average Stop Spacing (miles)
1	15.39	11.41	1.35	126	0.25
2	26.45	23.09	1.15	237	0.23
4	15.34	5.54	2.77	151	0.21
5	13.55	10.38	1.31	122	0.23
6	18.33	10.3	1.78	191	0.19
7	21.17	17.95	1.18	154	0.28
8	13.35	10.35	1.29	116	0.23
9	21.29	7.81	2.73	201	0.21
10	18.49	16.21	1.14	189	0.2
11	24.12	7.53	3.2	263	0.18
12	21.09	10	2.11	187	0.23
14	14.94	13.46	1.11	138	0.22
15	15.86	6.24	2.54	173	0.19
16	15.72	10.46	1.5	111	0.29
18	16.04	15.31	1.05	146	0.22
19	14.09	13.05	1.08	125	0.23
20	14.17	10.7	1.32	152	0.19
22	17.42	11.39	1.53	140	0.25
23	18.83	9.72	1.94	101	0.38
28	23.59	14.27	1.65	177	0.27
30	10.23	7.18	1.42	89	0.24
31	19.46	13.76	1.41	166	0.24
34	13.27	11.91	1.11	113	0.24
36	17.35	13.81	1.26	144	0.24
40	13.71	5.5	2.49	148	0.19
42	12.74	11.82	1.08	103	0.25
48	9.87	7.84	1.26	75	0.27
50	15.02	13.35	1.12	155	0.2
55	16.52	11.61	1.42	157	0.21
56	7.55	2.19	3.45	104	0.15
60	16.79	9.16	1.83	165	0.21
62	24.79	10.91	2.27	212	0.24
72	16.04	14.22	1.13	152	0.21
81	21	7.42	2.83	207	0.2
83	14.66	11.86	1.24	121	0.25
88	16.93	12.63	1.34	133	0.26
101	12.83	11.35	1.13	26	1.07
106	25.27	17.35	1.46	11	5.62
108	17.86	14.96	1.19	11	3.97
109	24.88	18.23	1.36	20	2.76
110	39.86	26.91	1.48	18	4.98
114	36.13	25.23	1.43	11	8.03
441	26.5	24.63	1.08	54	1.02

Lower  Higher

Table 26. Weekday Service Efficiency Metrics

Route	Miles / Hour	Layover / Revenue Hours	Revenue Hours / Total Hours	Service Miles / Total Miles
1	13	18%	94%	91%
2	13	12%	93%	86%
4	15	18%	98%	96%
5	13	15%	95%	89%
6	13	8%	97%	96%
7	14	21%	90%	83%
8	17	24%	96%	94%
9	14	14%	96%	95%
10	16	18%	95%	91%
11	13	13%	97%	94%
12	17	19%	93%	83%
14	14	15%	97%	93%
15		10%	79%	
16	18	20%	97%	95%
18	14	16%	94%	88%
19	13	15%	96%	91%
20	15	20%	97%	94%
22	15	21%	92%	83%
23		9%	76%	
28	15	13%	94%	87%
30	15	30%	96%	91%
31	15	17%	97%	94%
34	14	14%	92%	87%
36	11	11%	93%	83%
40	12	16%	92%	82%
42	13	15%	96%	92%
48	15	27%	96%	92%
50	12	18%	96%	89%
55	17	18%	95%	91%
56		16%	93%	
60	14	16%	97%	93%
62	16	12%	96%	93%
72	13	15%	94%	86%
81	14	14%	94%	86%
83	17	19%	93%	91%
88	18	22%	90%	84%
101	15	21%	94%	91%
106	27	17%	70%	63%
108	23	16%	70%	62%
109	19	4%	61%	50%
110	30	5%	58%	49%
114	33	12%	64%	56%
441	15	13%	93%	82%

Source: Route Statistics Report (October 2023)

Lower  Higher

Table 27. Saturday Service Efficiency Metrics

Route	Miles / Hour	Layover / Revenue Hours	Revenue Hours / Total Hours	Service Miles / Total Miles
1	14	19%	96%	92%
2	15	13%	94%	86%
4	16	18%	98%	97%
5	14	19%	95%	89%
6	14	8%	98%	97%
7	15	20%	93%	85%
8	18	28%	96%	93%
9	16	15%	97%	95%
10	16	19%	96%	92%
11	14	10%	96%	93%
12	17	17%	94%	86%
14	14	14%	97%	92%
16	19	24%	93%	89%
18	15	16%	96%	90%
19	13	16%	96%	90%
20	15	22%	95%	89%
22	16	18%	86%	75%
28	16	14%	95%	88%
30	17	22%	96%	92%
31	17	19%	96%	91%
34	16	18%	96%	93%
36	12	12%	94%	84%
40	13	19%	94%	85%
42	14	20%	96%	92%
48	17	32%	96%	92%
50	15	22%	96%	90%
55	19	21%	94%	91%
60	15	13%	97%	93%
62	17	13%	96%	93%
72	14	17%	93%	85%
81	14	14%	95%	89%
83	19	21%	96%	94%
88	19	23%	95%	90%

Source: Route Statistics Report (October 2023)

Lower  Higher

Table 28. Sunday Service Efficiency Metrics

Route	Miles / Hour	Layover / Revenue Hours	Revenue Hours / Total Hours	Service Miles / Total Miles
1	14	20%	96%	92%
2	15	12%	95%	90%
4	15	18%	97%	96%
5	17	17%	94%	90%
6	15	9%	96%	95%
7	16	16%	94%	90%
8	16	18%	96%	93%
9	16	12%	95%	93%
10	17	21%	94%	89%
11	13	10%	96%	92%
12	16	14%	93%	83%
14	14	13%	96%	90%
16	19	25%	96%	93%
18	15	16%	96%	91%
19	15	16%	96%	91%
20	15	21%	95%	88%
22	17	17%	91%	82%
28	16	14%	92%	83%
30	18	25%	94%	89%
31	18	18%	95%	90%
34	16	20%	94%	90%
36	12	13%	93%	82%
40	13	20%	94%	84%
42	15	18%	94%	91%
50	14	15%	96%	89%
55	20	22%	94%	90%
60	15	22%	96%	92%
62	17	12%	95%	93%
72	14	15%	92%	83%
81	15	14%	93%	85%
83	19	21%	94%	92%
88	19	22%	93%	88%

Source: Route Statistics Report (October 2023)

Lower  Higher

RIDERSHIP AND POPULATION SERVED

Table 29. Ridership per Population

Route	Ridership/population	Ridership/Jobs	Ridership/low-income	Ridership/minority population	Ridership/zero vehicle households
Coconut Creek N	0.03	0.08	0.19	0.06	0.06
Coconut Creek S	0.06	0.15	0.32	0.11	2.22
Coral Springs Blue	0.06	0.19	0.26	0.08	1.98
Coral Springs Green	0.06	0.20	0.37	0.09	2.83
Dania Beach Route 1 East	0.08	0.16	0.24	0.12	1.44
Dania Beach West	0.08	0.15	0.25	0.14	2.56
Davie Blue	0.04	0.09	0.22	0.08	6.14
Davie Green	0.02	0.04	0.07	0.02	0.89
Davie SFEC	0.11	0.20	0.40	0.18	6.37
Deerfield Beach 1	0.06	0.14	0.20	0.11	0.66
Deerfield Beach 2	0.07	0.21	0.22	0.10	1.73
FTL-TMA Beach Link	0.34	0.31	3.53	1.44	4.96
FTL-TMA Downtown Link	0.14	0.07	0.68	0.30	6.13
FTL-TMA Las Olas Link	0.06	0.03	0.43	0.20	1.48
FTL-TMA Neighborhood Link	0.10	0.14	0.27	0.12	2.34
Hallandale Beach 1	0.13	0.49	0.43	0.26	4.74
Hallandale Beach 2	0.14	0.35	0.50	0.29	1.94
Hallandale Beach 3	0.12	0.29	0.36	0.15	2.44
Hallandale Beach 4	0.15	0.44	0.43	0.19	2.51
Hillsboro Beach	0.01	0.04	0.09	0.05	0.69
Lauderdale Lakes N/S & E/W	0.15	0.89	0.41	0.16	2.85
Lauderhill Route 1	0.09	0.77	0.24	0.10	1.89
Lauderhill Route 2	0.12	1.42	0.29	0.13	2.84
Lauderhill Route 3	0.16	0.81	0.54	0.18	4.00
Lauderhill Route 4	0.13	0.86	0.64	0.16	1.84
Lauderhill Route 5	0.13	1.16	0.35	0.14	3.51
Lauderhill Route 6	0.23	0.83	0.60	0.24	1.97
Lauderhill Route 7	0.10	0.27	0.28	0.10	3.55
Lighthouse Point	0.03	0.10	0.24	0.10	1.43
Margate Route A	0.07	0.26	0.37	0.10	6.13
Margate Route C	0.08	0.32	0.39	0.12	3.34
Margate Route D	0.06	0.23	0.26	0.08	1.15
Miramar Green	0.02	0.12	0.10	0.02	1.62
Miramar Orange	0.00	0.02	0.03	0.00	0.29
Miramar Red	0.02	0.11	0.15	0.02	1.01
North Lauderdale Route 1/West Loop	0.04	0.25	0.13	0.04	1.26
North Lauderdale Route 2/East Loop	0.03	0.19	0.11	0.03	1.34
NW Community Link	0.14	0.27	0.36	0.17	2.43
Pembroke Pines Blue East	0.02	0.05	0.10	0.03	0.92
Pembroke Pines Blue West	0.03	0.08	0.12	0.04	0.60
Pembroke Pines Gold Eastbound	0.27	0.55	0.98	0.33	3.47
Pembroke Pines Gold Westbound	0.18	0.69	0.77	0.22	1.25
Pembroke Pines Green	0.11	0.57	1.27	0.14	40.94
Pompano Beach Blue	0.83	0.52	3.53	1.43	1.83
Pompano Beach Green	0.06	0.21	0.27	0.18	14.14
Pompano Beach Orange	0.02	0.07	0.08	0.03	0.93
Pompano Beach Red	0.10	0.25	0.33	0.14	1.54
Tamarac Red	0.08	0.42	0.29	0.09	2.73

Source: BCT Monthly Ridership Report (October 2023); American Community Survey (2022 5-Year Estimates)

Lower



Higher