

Memorandum



Date: February 20, 2025

To: Honorable Chairman Anthony Rodriguez and Members, Board of County Commissioners Agenda Item No. 2(B)(1)
March 18, 2025

From: Daniella Levine Cava 

Subject: Status Report on the Implementation of the Revised Better Bus Network and Implementation of a Plan to Eliminate Overcrowding on Metrobus 836 Express – Directive No. 240521 and Directive No. 240824

Executive Summary

On April 2, 2024, the Board of County Commissioners (Board) adopted Resolution No. R-279-24, sponsored by Commissioner Juan Carlos Bermudez, directing the Administration to provide a status update of the Better Bus Network (BBN) implementation. Similarly, on July 2, 2024, the Board adopted Resolution No. R-620-24, sponsored by Commissioner Juan Carlos Bermudez, directing the Administration to create and implement a plan to eliminate overcrowding on Metrobus 836 Express (Route 836).

Launched in November 2023, BBN was a comprehensive redesign of Miami-Dade County's bus network to improve service reliability, frequency, efficiency, and accessibility. The BBN redesign has led to significant increases to ridership, on-time performance, and reduced travel times, and is currently on track to surpass the performance metrics of Houston's best practice bus redesign. Furthermore, the network's overall efficiency has improved due to the redesign, with a 14% increase in productivity and a 27% decrease in subsidy per passenger, which measures the operating subsidy provided per passenger transported. These route modifications have also removed duplication with municipal services resulting in an increased ridership for their trolleys and on-demand transportation solutions.

The new network was designed with an historic amount of public engagement in coordination with Transit Alliance Miami. It includes several key features:

- **Increased frequency:** The number of high-frequency routes increased from 5 to 19, providing more frequent service to riders.
- **Expanded coverage across the day and week:** Midday frequency and weekend service improvements were critical to ensuring a consistent network upon which passengers can rely.
- **Simplified route alignments and transfers:** The realigned grid system is designed to make it easier for riders to transfer between routes.
- **Faster journeys:** Between bus stop consolidation, route realignments and faster transfers, passengers can get to their destinations quicker.

The redesign has propelled the Miami-Dade County Department of Transportation and Public Works (DTPW) to become the 10th largest bus transit system in the nation, based on ridership.

To enhance service coverage and accessibility, the County expanded the BBN by growing the MetroConnect on-demand transit service, launching the new fixed-route MetroLink program, and introducing a temporary Uber voucher program. These initiatives, tailored to passenger demand, have led to significant growth, particularly MetroConnect, which has seen a ridership increase of over 100%. By optimizing the number of routes and focusing high-frequency service where demand is strongest, while

¹Free fares were implemented from the launch through the end of that year to allow for a transitional period for both passengers and operators to acquaint themselves with the new network and to attract new riders. As a result, ridership surged disproportionately in November and December 2023. Therefore, the analysis in this report concentrates on metrics from January to June 2024 to provide a more accurate reflection of ongoing performance.

offering alternatives like MetroConnect for lower-demand areas, the County has achieved new efficiencies, resulting in increases in both productivity and ridership.

The BBN marks a major milestone in the County's transit system, reflecting the strong collaboration between DTPW, the community, and transit stakeholders. Community engagement has been a cornerstone of the BBN's development and implementation. DTPW conducted public information sessions and municipal workshops to gather feedback and address specific concerns. As the bus network evolves, DTPW remains committed to providing efficient, accessible, and reliable transportation services for all.

Ridership

Ridership is a key metric for assessing any transit system's performance. Typically, a new network requires at least a year to establish a stable passenger base. While the initial data provides a glimpse into the network's performance, the first two months of fare-free service saw predictably high ridership due to the free fares. Looking at the normalized ridership from January (when fares resumed) through June, the weekday ridership is up 5% in total compared to the previous year, with Saturday up 12% and 8% on Sunday. By comparison, Houston's bus network redesign from 2015 is often cited as one of the best performing, and their ridership increased 7% at the end of the first year. Miami-Dade is on track to surpass this, experiencing an 8% increase in less than a year's implementation.

Below is a comparative look at ridership data for FY 2023 and FY 2024. Figure 1 shows a post-fare resumption in January, revealing continuous significant improvement in weekday ridership, with increases of up to 16% in April compared to the previous year.

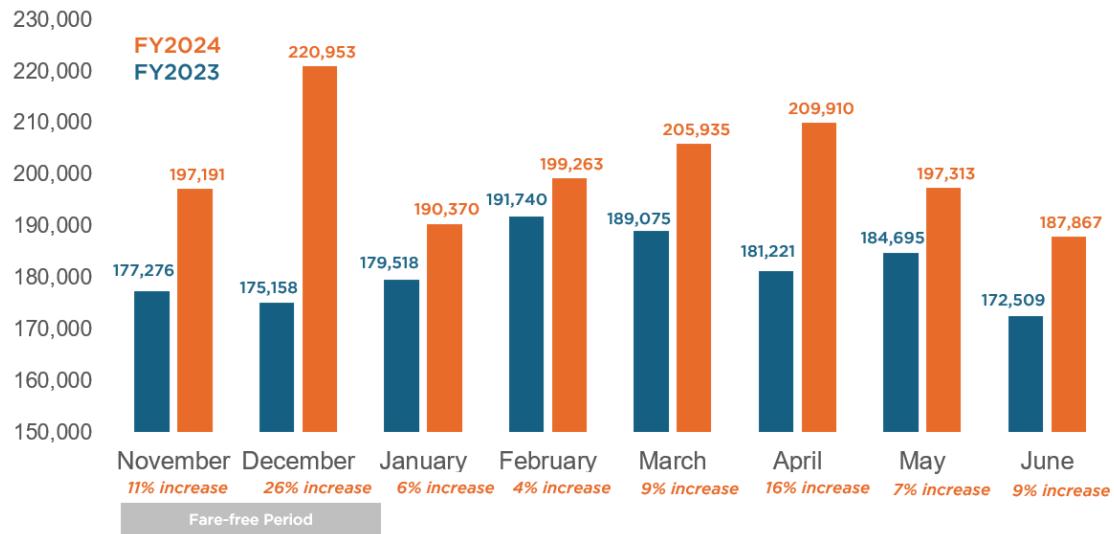


Figure 1. Year over Year Comparison of Weekday Ridership

Saturday ridership has experienced even more substantial growth, consistently outperforming the previous month reaching a peak of 21% in April. Figure 2 depicts the substantial growth in Saturday ridership is a testament to one of the BBN's core adjustments: consistent high-frequency service throughout the week.

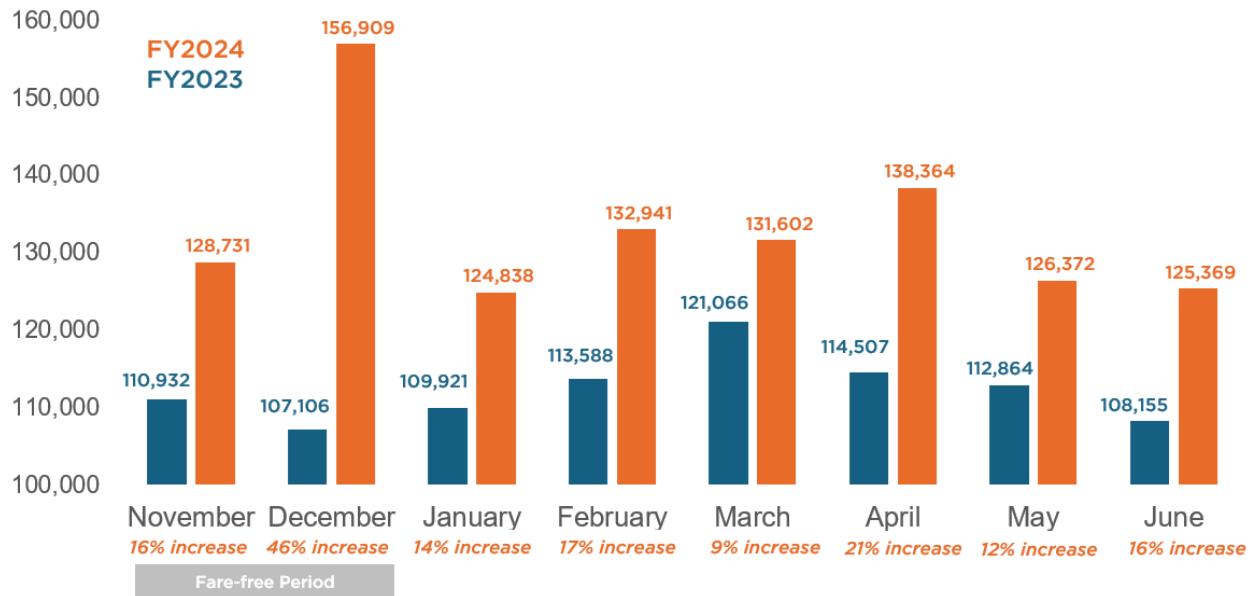


Figure 2. Year over Year Comparison of Saturday Ridership

Sunday ridership has increased at a more gradual pace, Figure 3 shows June a 6% improvement. Before the BBN implementation, bus ridership had increased by approximately 4% over pre-COVID levels. Direct route comparisons between pre- and post-BBN data will be misleading due to the substantial route alignment changes implemented. These adjustments make it difficult to accurately assess the BBN's impact on specific routes and therefore the entire network is evaluated here.

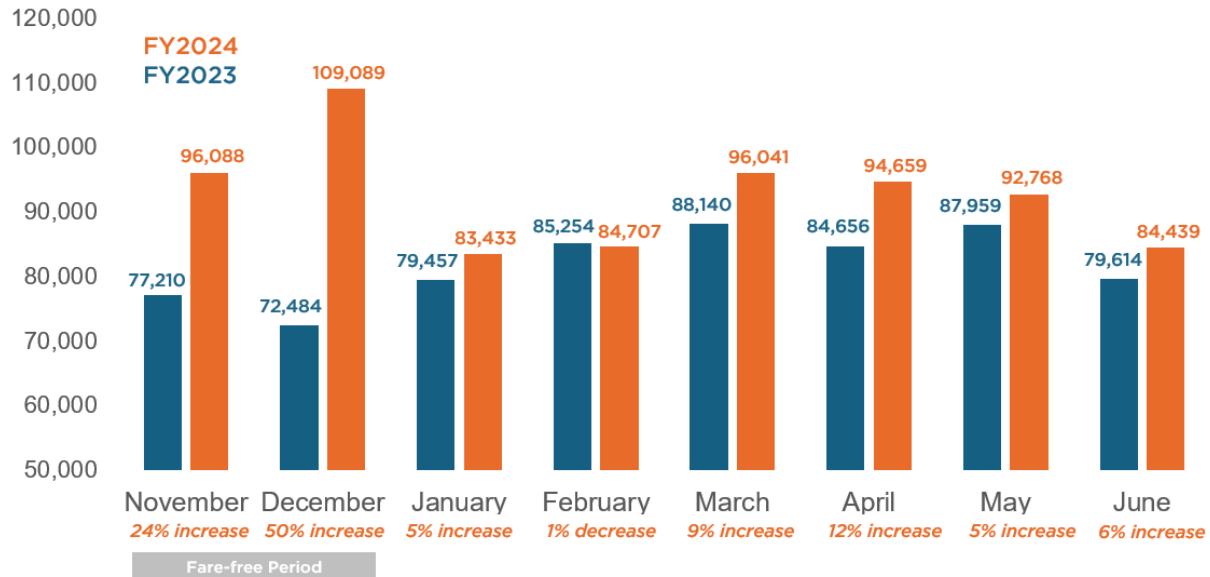


Figure 3. Year over Year Comparison of Sunday Ridership

Productivity and Subsidy by Route

Route productivity and subsidy are crucial metrics for assessing how well service aligns with demand, and the efficiency of resource utilization. As defined by DTPW's adopted service standards, these metrics are calculated as follows:

- Passengers per revenue hour - Measures the number of passengers carried per hour of service operation.
- Net cost (subsidy) per passenger - Measures the operating subsidy provided per passenger transported.

Overall, the number of routes decreased by 25% and area served by 17%, while the average productivity of all routes increased by 14% from 21 to 24 passengers per revenue hour – reflecting the positive impact of the increased ridership. The service standards stipulate a minimum requirement of 15 passengers per revenue hour to sustain a fixed-route service. Table 1 below demonstrates a significant reduction in the number of routes operating below this threshold, from 28 pre-BBN to only 10 in the new network. This represents a 64% decrease.

As illustrated in the ridership figures in pages two and three, new routes and networks typically require at least 12 months for ridership to stabilize. Routes that consistently fall short of the minimum productivity standard will be closely monitored and evaluated for potential adjustments or discontinuation.

	Pre-BBN (October 2023)	Post-BBN (April 2024)	Percentage Difference
Number of Routes	92	69	-25%
Average Productivity (Passengers per Revenue hour)	21	24	14%
# Routes Below Min Productivity Standard	28	10	-64%
Average Subsidy Per Passenger	\$8.90	\$6.50	-27%
Weekday Route Miles	1,175	975	-17%

Table 1. Summary of Productivity/Efficiency Metrics

Figure 4 on page five, shows that there are only two routes above a \$15 subsidy per passenger in the new network compared to 10 in the BBN, an 80% reduction. The outlier in the old network, at \$88.25 per passenger trip, was Route 254, the Brownsville Circulator. This route was eliminated as it duplicates or is within a quarter mile of existing DTPW and City of Miami service, and was the least productive route carrying only five people every weekday. Staff is in discussions with the City of Miami to realign its nearby service to better serve the local community.

3.

The Westchester and Sweetwater circulators, Routes 82 and 212 respectively, are good examples of productivity efficiencies and enhanced mobility options gained with the restructuring and utilization of mobility alternatives. These routes were very mature, operating for decades, and carried approximately 60 and 20 passengers a day respectively, serving a combined population of 36,000 within a quarter mile of the bus stops. They operated with subsidies of roughly \$24 and \$21 per passenger, respectively. Both routes were discontinued as part of the BBN, and a new MetroConnect zone covered the route alignments and a larger area with a population of over 184,000 residents. This new zone is currently operating at a subsidy of \$19 per passenger, with a daily ridership of 140—nearly double that of the two routes it replaced. Additionally, it offers extended service hours, providing greater access to residents, all achieved in less than a year of implementation.

Establishing a new service typically takes a year, so the Administration expects ridership to continue to grow and that the cost per passenger decreases over the coming months.

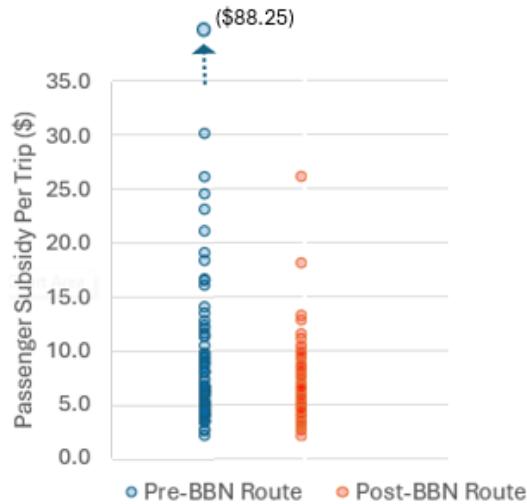


Figure 4. Passenger Subsidy Per Trip by Route Pre- and Post BBN

On-Time Performance (OTP)

On-time performance is a critical indicator of service reliability, reflecting the consistency of bus arrivals. DTPW's target rate for on-time performance is 78%, but post-COVID, actual performance has averaged in the high 60%'s due to various factors, including traffic congestion, bridge closures, major events, and other unforeseen circumstances. These factors contribute to the variability of travel times, leading to fluctuations for example between 30 minutes and an hour for the same trip on different days. Schedulers analyze actual bus trip data to determine average travel times and create schedules that optimize resource utilization while aligning with real-world conditions.

Since the implementation of the BBN, on-time performance across all bus routes has consistently improved, with increases ranging from one to nearly four percentage points compared to the previous year, as illustrated in the following graph.

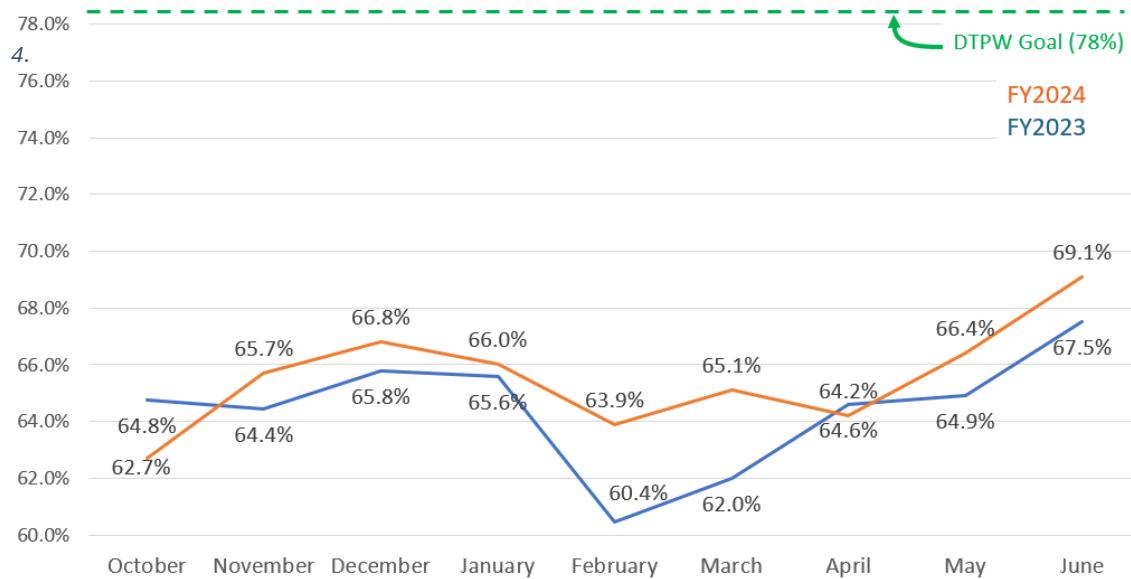


Figure 5. Year over Year Comparison of On-Time Performance (OTP)

Schedule adjustments made on April 29, 2024, and July 22, 2024 have further enhanced on-time performance, particularly at the route level. For instance, Route 100, the highest ridership route from the mainland to Miami Beach, has experienced a 30% improvement in on-time performance due to multiple schedule adjustments since its launch.

DTPW staff will continue to monitor route performance, gather feedback from passengers and operators, and make necessary schedule adjustments to optimize service reliability and efficiency.

Travel Time Savings

A fundamental principle of the new network was to expedite travel times through the following strategies:

- Consolidating bus stops: Optimizing stop spacing to minimize unnecessary delays.
- Realigning routes: Streamlining routes for greater efficiency.
- Increasing midday frequency: Enhancing transfer options for passengers.

These strategic changes have yielded substantial travel time reductions for key journeys:

- Miami Beach to Government Center: Passengers on Route 100 have experienced a 20-minute round-trip time reduction compared to the previous Routes S and 120. This improvement benefits over 7,000 daily commuters, saving a collective 2,000 hours.
- Dadeland North to Dolphin Mall: Midday travelers on Routes 7 and 87 have realized a 37-minute round-trip time reduction due to increased service frequency.
- Doral to Florida International University: Passengers on Routes 11 and 87 have saved 32 minutes round-trip during midday hours due to enhanced frequency.

Feedback and Community Input

A key component of the ongoing monitoring and improvement process involves gathering, analyzing, and categorizing public feedback regarding the new network. From October 2023 to July 2024, DTPW received over 5,500 comments from more than 4,200 individuals through various channels, including 311 calls, emails, direct communication with Commissioner/Mayor's Office staff, public meetings, and an online survey.

To gain a deeper understanding of public concerns, staff carefully categorized these comments. The summary below outlines the key themes that emerged. Each comment received a thoughtful response, and several were instrumental in informing service adjustments for subsequent network configurations.

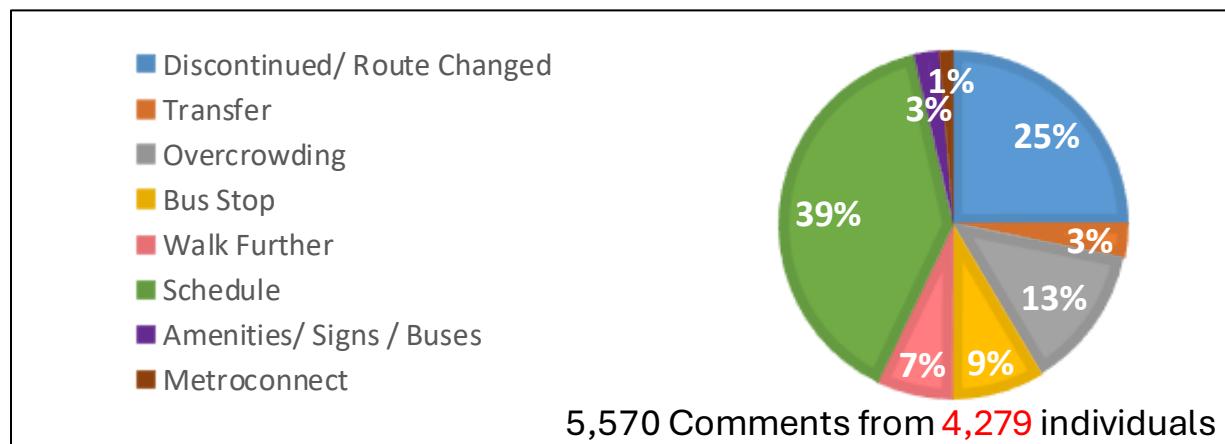


Figure 6. Total Feedback from October 2023 through July 2024

Schedule-related complaints constituted the largest category, accounting for nearly 40% of all feedback. Service discontinuations or route changes were cited in approximately 25% of comments, while overcrowding was a concern for 13% of respondents. Other issues, such as bus stop locations, longer walking distances, transfers, amenities, and MetroConnect, each accounted for less than 10% of the total comments. Furthermore, overcrowding complaints increased during this period, likely due to missed trips causing subsequent buses to carry a heavier passenger load.

Although "schedule" is the most frequently cited issue, many comments specifically address instances of missed trips, indicating operational challenges rather than dissatisfaction with scheduled arrival times. The following chart illustrates a surge in schedule-related complaints between January and June, coinciding with a period of heightened operational issues, resulting in higher-than-normal missed trips. This directly impacts public perception of the schedule.

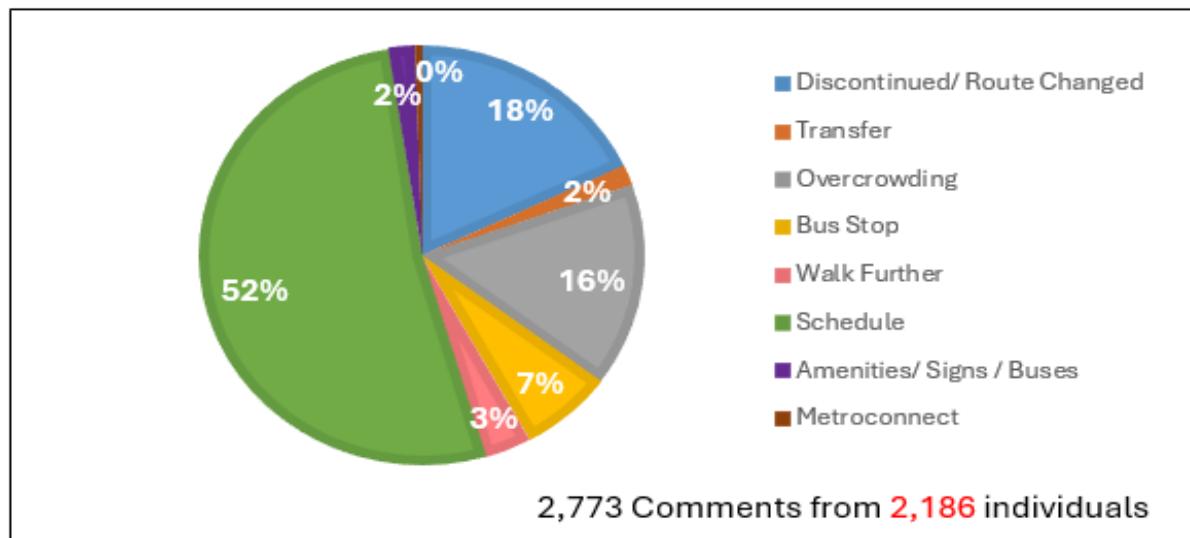


Figure 7. Total Feedback from October 2023 through July 2024

Figure 8 below shows the numbers of comments received broken down by month. Here we can see a clear drop in comments received by May 2024 and resuming to pre-BBN comment levels in June.

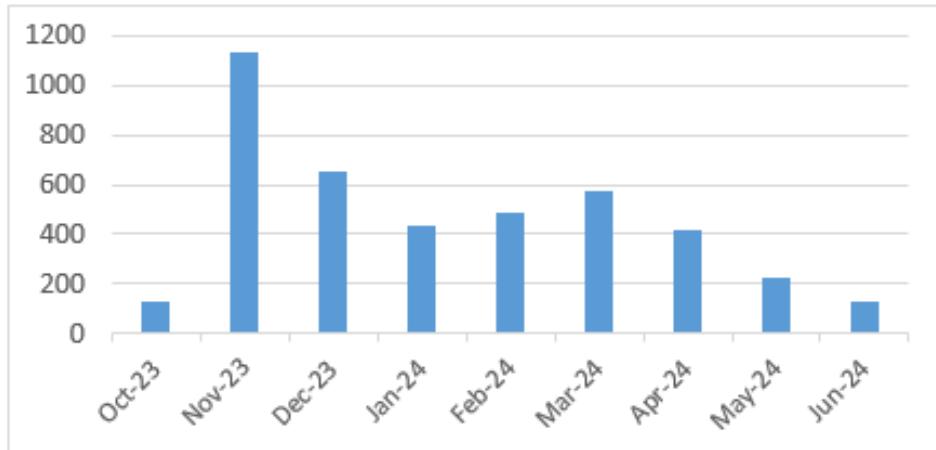


Figure 8. Bus Service Comments Received by Monthly Totals

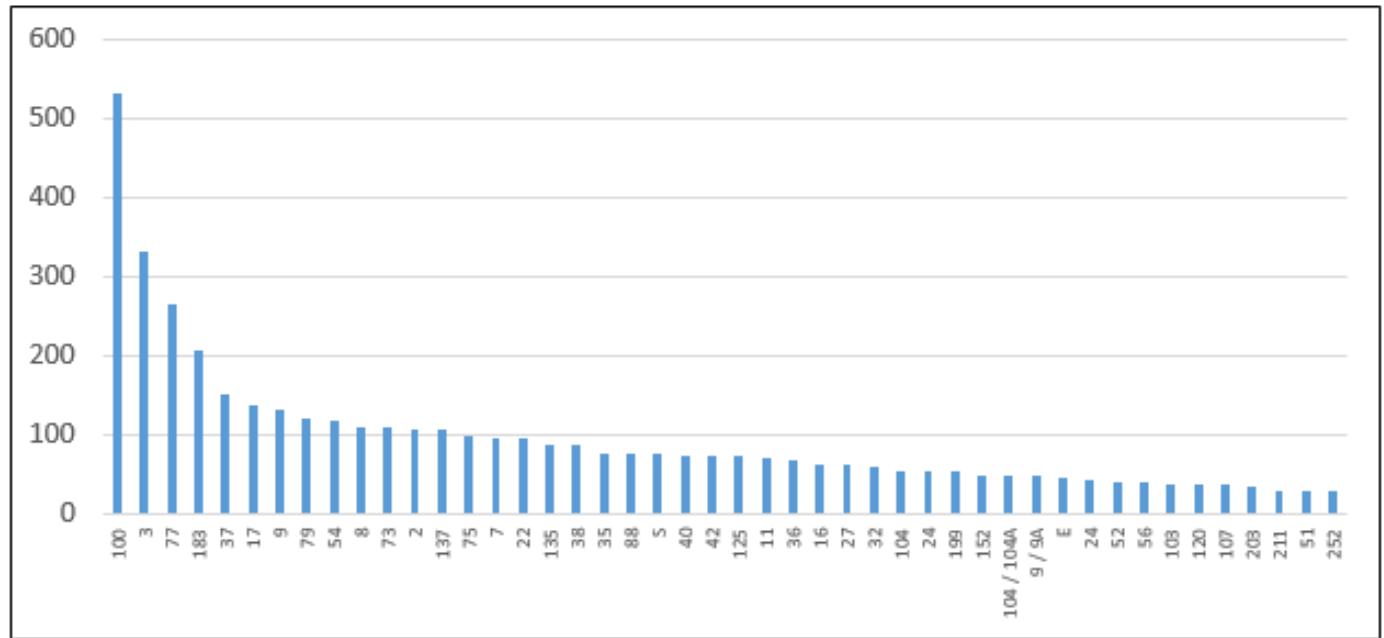


Figure 9. Gross Number of Comments by Route October 2023 through July 2024

Figure 9 above shows the number of comments received by route for those routes receiving 30 or more comments between the launch and July 2024. Route 100 alone received 10% of all comments with the top four routes comprising nearly a quarter of all comments received. This roughly aligns with ridership numbers as Routes 100 and 77 account for 15% of total passengers.

Another way to look at the comments is as a ratio by ridership. This allows staff to gauge where there are major concerns with a route carrying fewer passengers, but a large proportion of those riders have submitted comments.

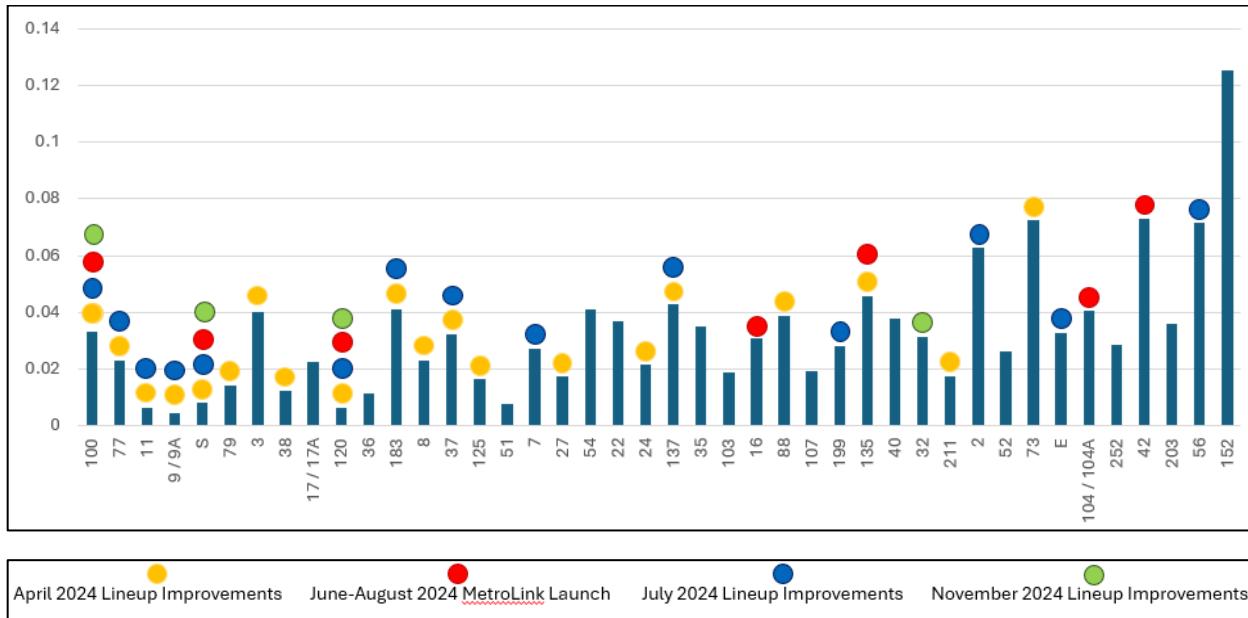


Figure 10. Ratio of Comments (Oct 2023-Jul 2024) to Ridership and Improvements

Figure 10 above shows the ratio of comments to ridership and improvements from October 2023 to July 2024. Routes 152, 42, 56 and 73 are clearly routes where many passengers have concerns:

- Route 56 comments primarily focused on how the new route detoured passengers going east along 56th St to Douglas Road instead of University Metrorail. Based on the feedback staff reversed that change as part of the July 2024 lineup changes.
- Route 152 previously connected 152 Street directly to Dadeland South but was shortened at the TransitWay as part of BBN, creating a forced transfer to continue to Dadeland South. This route was contracted out due to operator shortages as part of the changes. These are both large changes to the route and many of the passengers have expressed concerns. However, there are no immediate solutions due to the operator shortage, and the forthcoming Bus Rapid Transit will force all local bus routes to transfer per the agreement with the Florida Department of Transportation (FDOT).
- Route 73 comments related mainly to reliability. Staff adjusted the schedule to help with reliability as part of the July lineup, and the on-time performance went from an average of 66% on weekdays to 68%, and staff continues to monitor and adjust.
- Route 42 served 42nd Ave and was eliminated due to nearby service on Route 37 and Ponce de Leon Coral Gables service south of the airport, and Route 32 in the north. Despite the low ridership, staff noted the northern section had larger distances with geographical barriers, and so implemented a new MetroLink service effective June 24, 2024, which addressed many comments on Route 42.

Furthermore, Figure 10 shows staff implemented improvements at each lineup opportunity to the routes causing the most passenger concerns. In addition to passenger feedback, service planning and scheduling staff regularly hold operator forums at the division level, after a lineup, allowing staff to hear directly from operators on any challenges they face. They keep track of what can be improved for the following lineup, what is not feasible and what needs more research. Staff then established a feedback mechanism showing operators at the lineup pick how they will address the feedback with subsequent lineups.

It is important to highlight that the service undergoes continuous improvement at each lineup. Staff plans based on service monitoring and operator/passenger feedback, but the whole process from the initial planning stage to final implementation takes six months, due to the intricate scheduling required for over 1,000 operators and the collective bargaining agreement process for picking the work. Updated scheduling

software (anticipated by the end of 2025) will help compress this timeline by a couple of weeks, but unfortunately it is impossible to make immediate changes to the DTPW operated service.

Revenues

Despite significant increases in ridership, revenue figures have remained relatively flat since the beginning of the year, with a year-over-year difference of less than 1% on average for the first six months.

Several factors contribute to the discrepancy between ridership and revenue:

- **Free fare programs:** Increased participation in free fare programs (such as Golden Passports) impact revenue.
- **Reduced fare media:** Increased usage of options like daily fare capping can lower revenue.

These factors collectively influence the relationship between ridership and revenue.

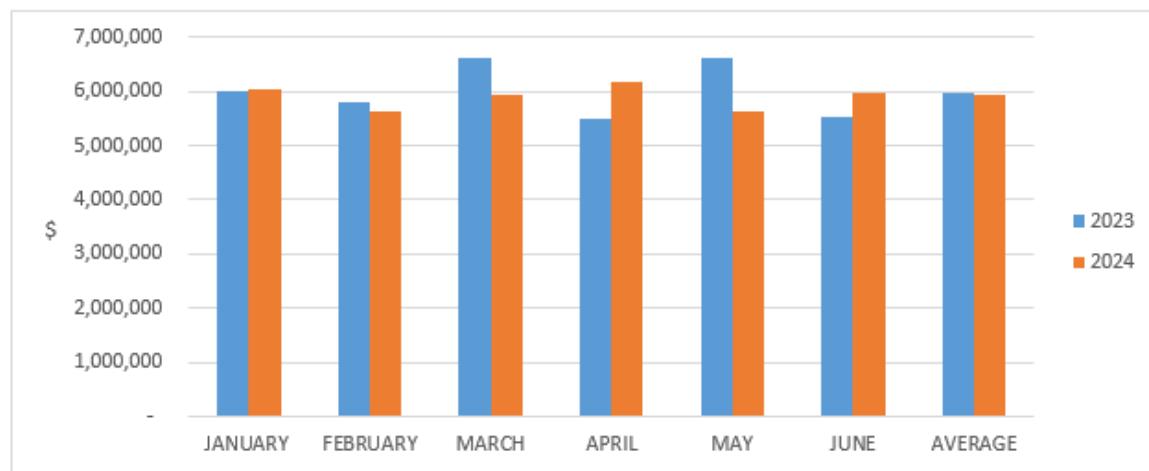


Figure 11. Year over Year Comparison of Fare Revenues

Figures 12, 13, and 14 below provide a deeper analysis of fare sales data reveals intriguing trends in cash versus pass purchases. The accompanying graphs demonstrate a 24% year-over-year decline in cash fare payments, while pass sales have increased by 3%. Pass sales include fare media that enable fare capping and weekly/monthly passes, providing passengers with the flexibility to make multiple trips without additional charges.

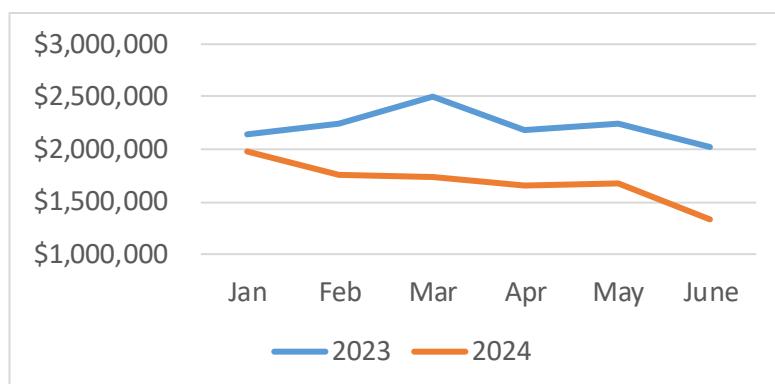


Figure 12. Year over Year Cash Revenues

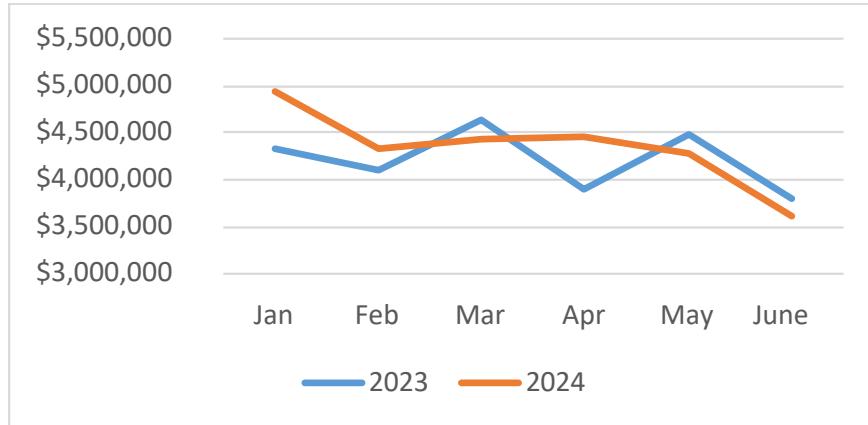


Figure 13. Year over Year Sales Revenue

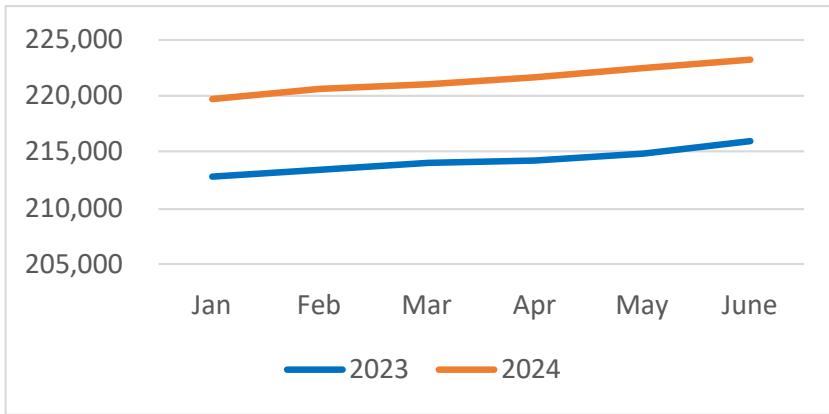


Figure 14. Free Pass Enrollment

Enrollment in free fare programs has risen by 3% to 4% year over year, representing an increase of over 7,000 passes per month compared to the previous year. While ridership growth has been approximately double that of weekday figures, other factors may contribute to the observed differences in revenue. Transfer numbers, passenger counting methodologies, farebox maintenance levels, and operator procedures are all variables that could account for the difference. However, the increase in pass sales and free fare media is likely the most significant factor contributing to the discrepancy.

Operator Incidents

Directive No. 240521 requested reporting incidents pre- and post-implementation. Figure 15 below shows the number of incidents against operators. As the data involved very few numbers of incidents, and ridership has increased, it is hard to determine meaningful differences pre- and post-implementation.

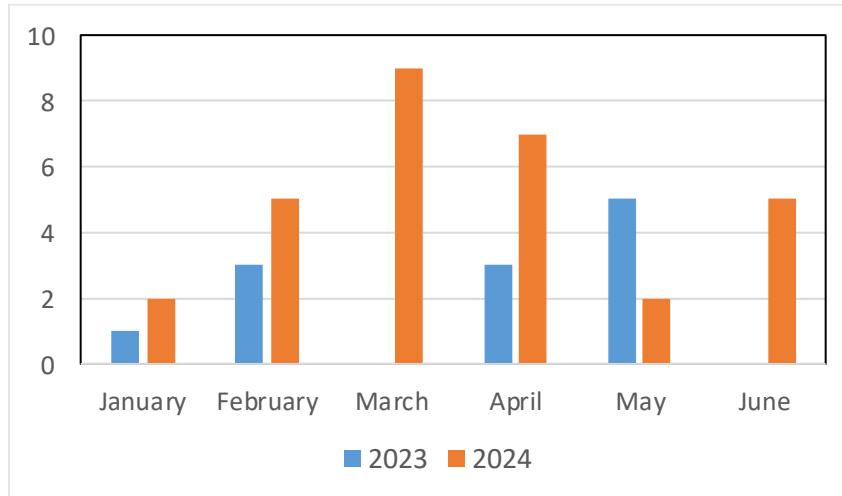


Figure 15. Year over Year number of incidents against bus operators

Filling in the Gaps

Prior to the launch, public comments highlighted concerns about the new network in specific areas of the County. In response, staff implemented the following additional outreach and mobility solutions to address these service gaps:

1. **MetroConnect Expansion:** Tailored existing zones and created a new one to bridge mobility gaps.
2. **Uber Voucher Program:** Provided vouchers along key segments of discontinued routes.
3. **Municipal Service Realignment:** Conducted workshops with municipal staff to discuss more efficient local mobility solutions.
4. **MetroLink Launch:** Introduced a new type of fixed-route service along segments of discontinued routes as a demonstration project.
5. **Transit Connections Launch:** Established a dedicated team for community engagement and outreach.

MetroConnect Expansion

In October 2023, the County's on-demand transit program, GoConnect, was rebranded as MetroConnect and expanded from four zones to 11. This expansion aimed to complement the implementation of the BBN and South Dade Bus Rapid Transit (BRT), addressing transit gaps in areas with limited or no service coverage, particularly in the northern and southern regions of the County.

Since the program's expansion and the BBN's launch, MetroConnect has experienced a significant and sustained increase in demand. Figure 16 illustrates the average number of weekday rides served by MetroConnect per month before and after the BBN implementation.

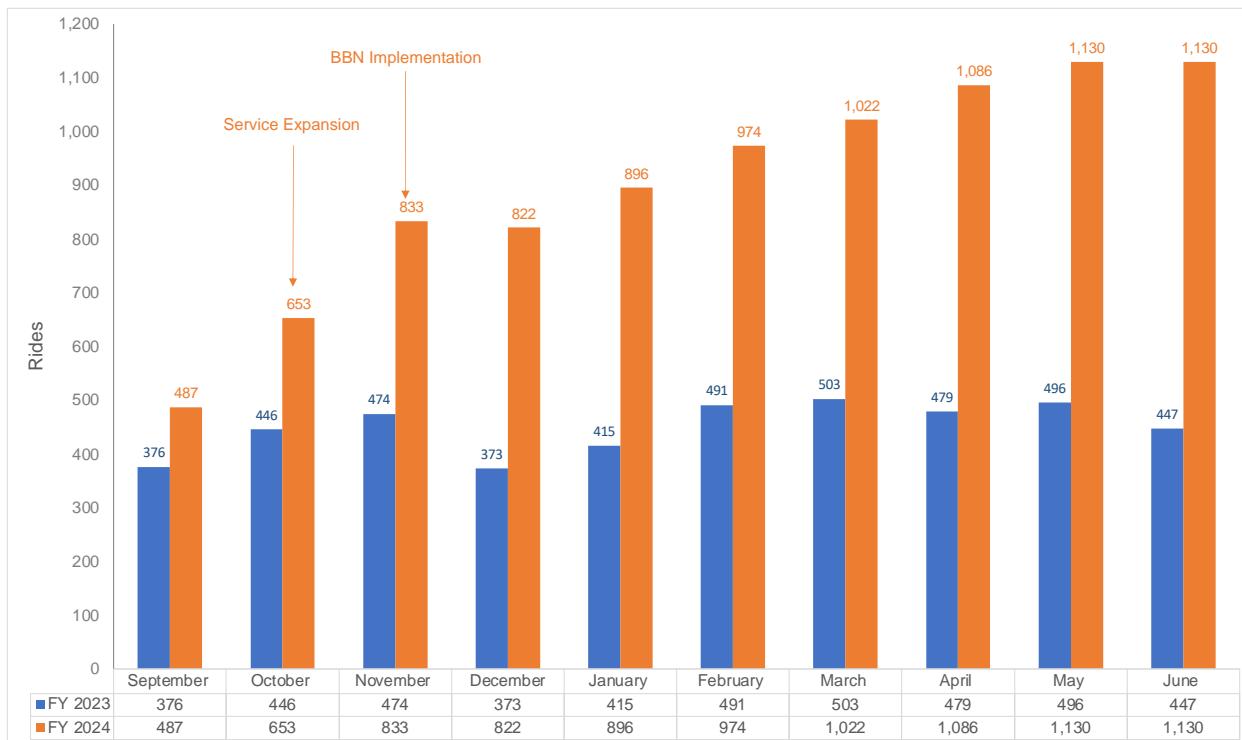


Figure 16. Average weekday rides served by MetroConnect before- and-after-BBN.

Ridership increased by a substantial 34% during the first month of expansion, rising from 487 rides in September 2023 to 653 rides in October 2023. Following the BBN's implementation in November 2023, MetroConnect ridership experienced a further 73% increase, reaching over 1,100 weekday rides in June. Compared to the previous year, before the BBN implementation, ridership has grown by over 100%. This substantial increase in ridership underscores the program's high utilization and strong community support.

Cost per Ride

The cost per ride for the MetroConnect program is calculated as the cost for each revenue hour divided by the total number of trips completed by revenue hour. As indicated in Figure 17, the average cost for a MetroConnect trip has come down from \$19.23 in January 2024 to \$17.12 in September 2024.

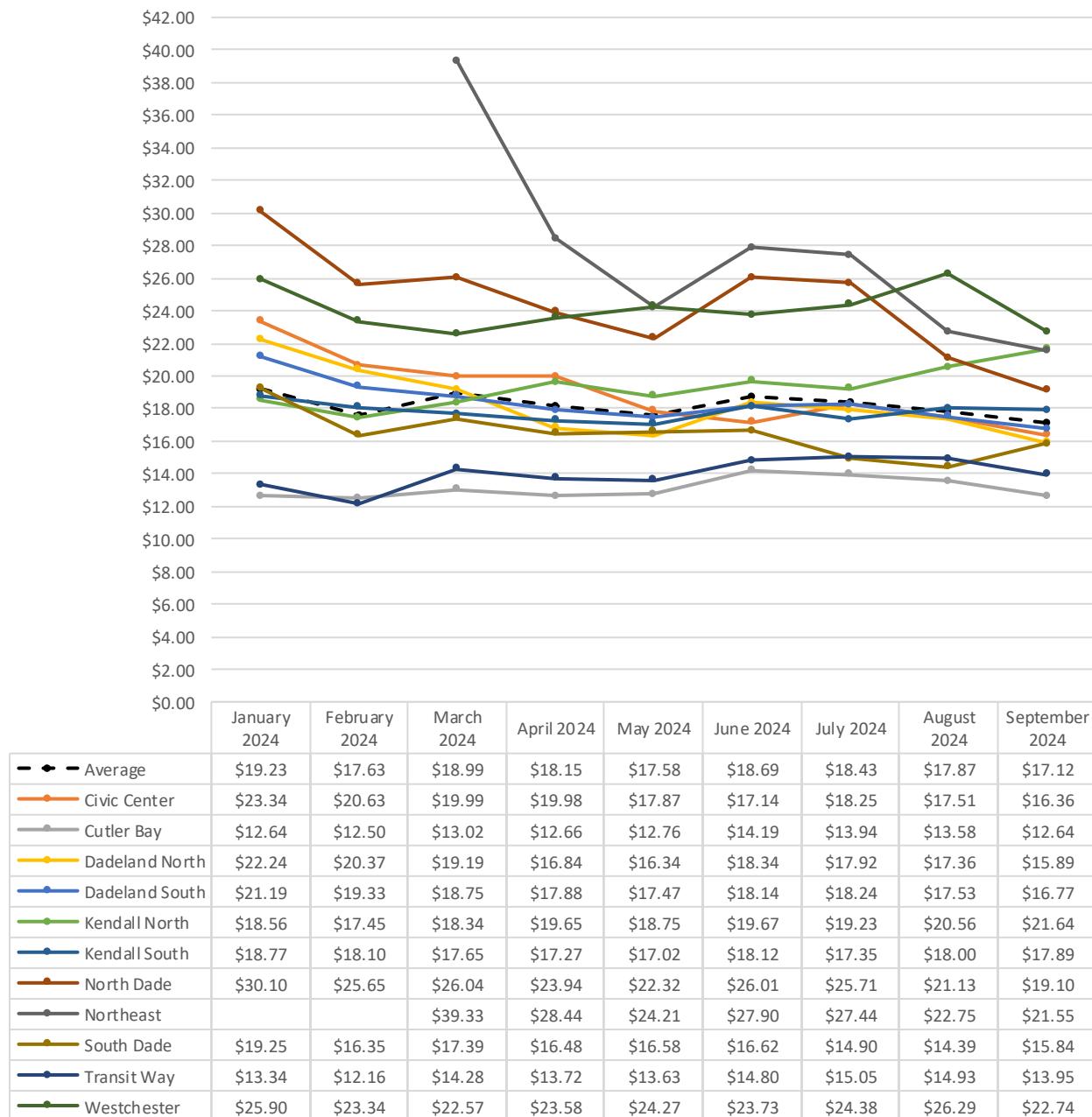


Figure 17. Cost per Trip by Service Zone

Looking at the information by each service zone, there are a range of costs from \$12 to \$30 per trip, except for the first few months for the Northeast zone which saw costs of over \$40 per trip.

The costs per trip experienced in the MetroConnect program is aligned with the national average subsidy of a microtransit ride of \$20 to \$30 per ride. Currently there are several zones operating under \$20 per trip. As the program continues to mature, it is expected for these costs to decrease further.

Uber Voucher Program

To assist riders affected by Metrobus service changes due to the BBN implementation, Miami-Dade County partnered with Uber to offer transportation vouchers in specific areas.

The "BBN Uber Voucher Program" launched in December 2023, operating seven days a week from 6 a.m. to 10 p.m., mirroring the previous operating hours of discontinued bus routes. This temporary solution was made available only in areas where bus service was removed, and no other transit option existed within half a mile. Trips were limited to the six designated routes, with a 500-foot buffer, and must align with a specific route. The program covered up to \$25.00 per ride, with an average cost of \$9.40.

This short-term program was introduced as a bridge until permanent solutions were introduced. Specifically, some modifications to bus routes and the addition of the MetroLink program. In June, the voucher program exceeded expectations, providing an average of 716 rides daily, surpassing the anticipated 150 weekday rides. Ridership increased by 58% in June compared to May, demonstrating strong community support.

Municipal Service Realignment

Staff held workshops with key municipalities to work on complementary municipal trolley and on-demand service redesigns. As a result, Sunny Isles Beach, North Miami, North Miami Beach and Opa-Locka municipal staff and elected boards are considering and implementing changes developed with County staff. The City of Sunny Isles Beach moved its route change through its commission, while North Miami Beach is undergoing a review of all service with consultant support. DTPW staff presented at each of these municipal commissions to provide updates on the new network and support for the municipal service changes. Staff continues to work closely with municipalities to provide technical planning assistance, and support for changes through their legislative bodies. This includes updating interlocal agreements (ILAs) with the municipality where relevant. An example of this is the City of Miami Beach, where staff worked with them to develop a new fixed route as part of their trolley network and DTPW is subsidizing its operations. Their revised ILA is due to come before the Board in 2025.

The original BBN plan proposed significant changes to municipal services to eliminate inefficiencies and redundancies along major corridors. However, due to the disruptions caused by COVID-19, DTPW was unable to fully implement these changes as municipalities faced service cuts and funding uncertainty. Instead, DTPW focused on integrating elements of the network realignment that addressed overlapping municipal services. The latest data from the Citizens' Independent Transportation Trust (CITT) reveals a 6% increase in ridership across all municipal services during the first quarter of 2024. This growth further demonstrates the enhanced efficiency and effectiveness of the new network throughout the County's transportation system.

MetroLink Launch

The MetroLink program, launched in June, is a demonstration program designed to address service gaps. Utilizing smaller 15-passenger vans to cater to lower-demand areas, MetroLink is operated by three contracted service providers through a competitive solicitation process. The program currently operates on six routes throughout the County.

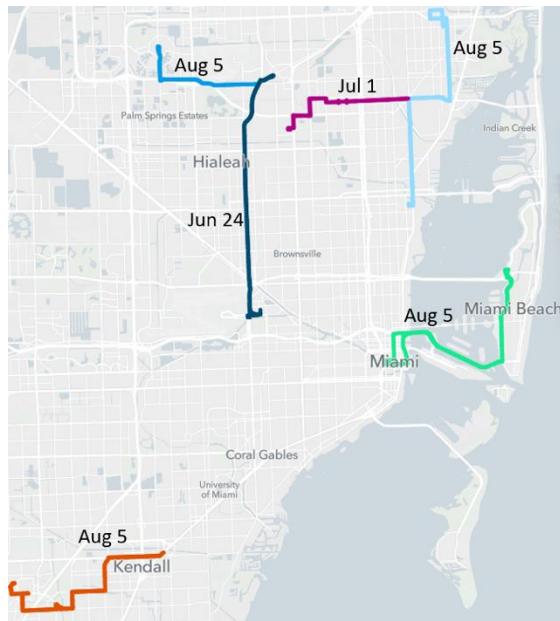


Figure 18. Metrolink Route alignments and launch dates

DTPW will continue to analyze performance data to determine the future of these routes, considering potential transitions to other transit or mobility solutions. The first route scheduled for transition is Alton Road, which will be incorporated into the regular DTPW-operated fixed-route service network as Route 101 in November.

TransitConnections Launch

Multiple public meetings were held as listening sessions to best understand the concerns of the community. These were held in Sunny Isles, North Miami Beach and Opa-Locka between November 2023 and January 2024. Transit Connections emerged from these meetings, and is designed to increase public awareness and engagement about the County's vast public transit services, such as:

- Free and reduced fare programs
- Financial hardship assistance
- Special Transportation Service (STS)
- First-and-last mile options
- Lost and found
- Safety and security
- Community outreach presentation requests
- Service complaints
- Guaranteed Ride Home Program
- Special performances and appearances at stations and terminals with DTPW's renowned chorale ensemble, Transit Expressions
- Trip-planning assistance

TransitConnections also touches on the DTPW's SHIFT305 initiative, an action plan that is improving Miami-Dade County's public transportation through even safer, cleaner, more efficient and connected programs and services. TransitConnections aims to garner interest from the private sector, local universities, and non-profits to collaborate with DTPW on innovative mobility solutions. Through this engagement initiative, the department is better positioned to inform and empower Miami-Dade County's residents and visitors to enjoy safe and reliable public transportation options.

Route 836

Resolution No. R-620-24 calls for addressing overcrowding on Route 836. Earlier this year, operational issues with a lack of operators led to missed morning trips, causing passengers to board subsequent trips, resulting in overcrowding. The graph below shows the "max max load" (the highest number of passengers on any given day), which exceeded 50 passengers per trip—above the seated capacity of 38 and our load standards. However, the graph also presents the average max load per trip, peaking at 30 passengers on the 7:10 am trip, which is below the bus's seated capacity. This indicates that overcrowding was not a persistent issue, but rather occurred on a few days in February due to missed trips. Operations staff now ensure that all Route 836 trips run as scheduled, and the data shows no ongoing overcrowding concerns.

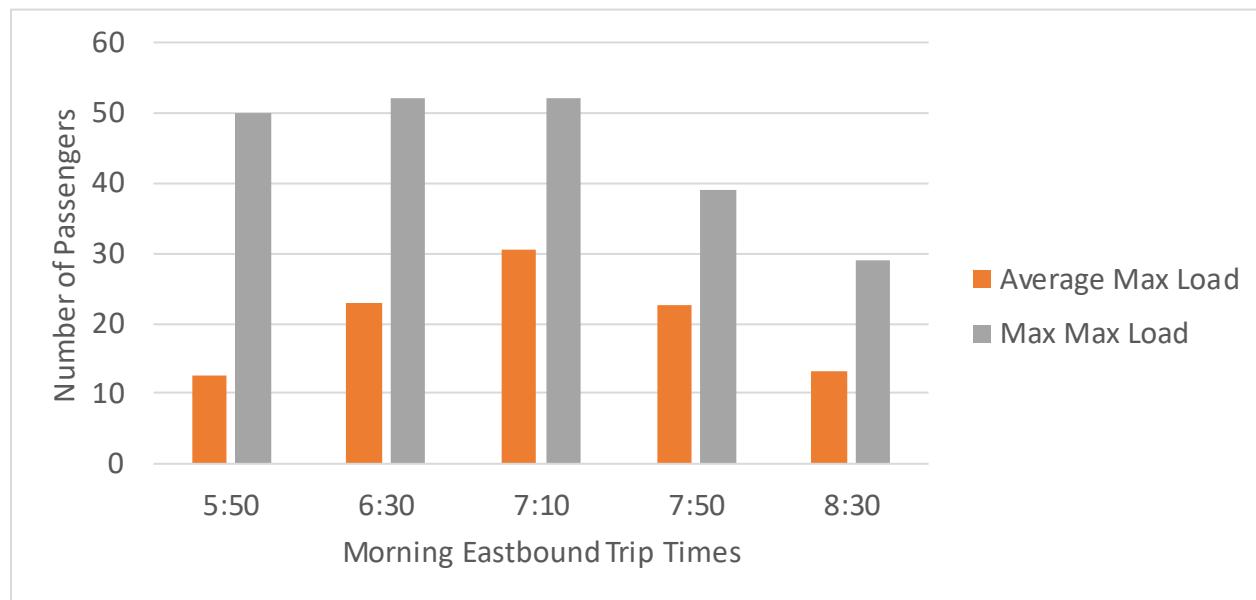


Figure 19. Route 836 Average Max and Max Max Load by Morning Eastbound Trip (January -July 2024)

Pursuant to Ordinance No. 14-65, this report will be placed on the next available Board meeting agenda. Should you require additional information, please contact Josiel Ferrer-Diaz, Interim DTPW Director and CEO at (786) 469-5406.

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Yinka Majekodunmi, Commission Auditor
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