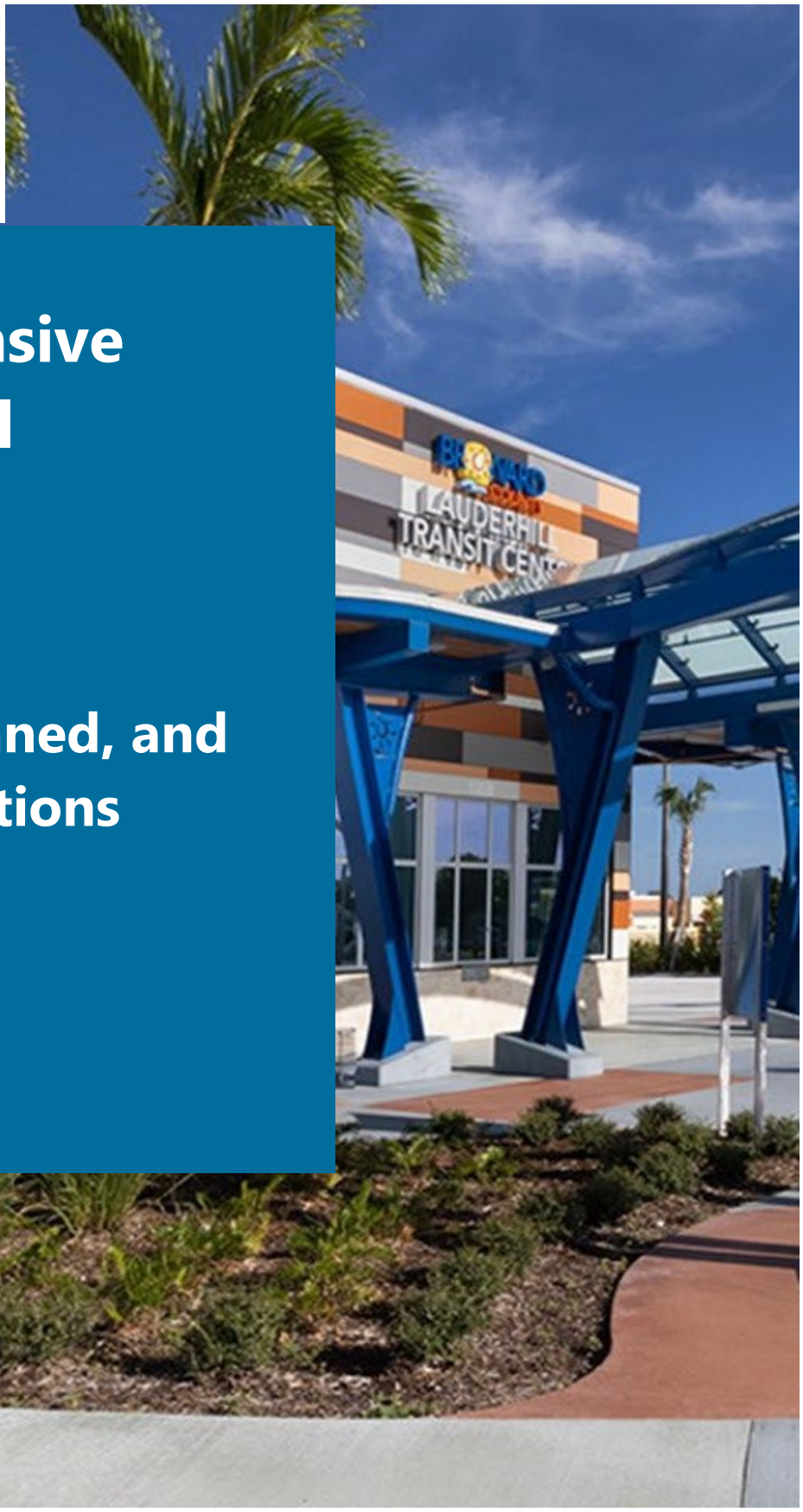
BROWARD COUNTY Transit



Comprehensive Operational Analysis

DRAFT

Existing, Planned, and Future Conditions

October 2023

NELSON NYGAARD

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1 INTRODUCTION

Significant changes have transpired over the last few years that will change the direction and design of public transit service in Broward County for decades to come. The county continues to experience significant population and job growth, resulting in the need for a new direction and solutions to how people move around the county. Forward thinking decisions by Broward County leadership and the public to initiate and pass the one cent, 30-year, Penny Transportation Surtax, named the Mobility Advancement Program (MAP), will forever change mobility options within Broward County.

Broward County Transit (BCT) completed their Premium Mobility Plan, or PREMO, that define a program of premium transit projects to meet the needs of the county and achieves the objects set forth by MAP. The pipeline of projects generated from this program will ensure continued success in providing high quality transit services to county residents. The Broward County Board of County Commissioners approved the program of PREMO projects, on June 13, 2023.

It is within this context of growth and opportunity that BCT is completing a Comprehensive Operational Analysis (COA) Study. This effort will modernize the transit network to align with new and emerging travel patterns, expand existing and future mobility modes, incorporate new service delivery models, and integrate with the planned PREMO Network into phased transit plans for the near, mid, and long-term. The first step in this process is to review and document BCT's network and service area through an Existing, Planned, and Future Conditions report.

WHAT IS THE EXISTING, PLANNED, AND FUTURE CONDITIONS REPORT?

Transformative changes to a transit system must be based on data that highlights the opportunities for improvement. In addition, any changes should complement previous planning work and reflect the values of the local communities that BCT serves. The Existing, Planned, and Future Conditions Report is developed to create an understanding of characteristics of BCT's service area, BCT's network of mobility services, and all relevant studies, reports, and plans pertaining to BCT and Broward County. The analysis in this report therefore provides context and background for the CAO|SO Study to build from. Specifically, the Existing, Planned, and Future Conditions Report investigates:

- Population and employment densities throughout the county, and important characteristics of the population
- Trends in population growth and economic activity as well as forecasts for future year population and employment
- Key geographical communities throughout the county that represent the best opportunities for ridership growth
- Trends in overall transit service provided including how transit demand has changed in the recent past

- Current and planned services such as PREMO and how the coverage of these services matches the demographic and economic data investigated.

The Existing, Planned, and Future Conditions Report is an initial step to understanding BCT services and the Broward County service area. Companion reports (Evaluation of Existing Services, Mobility Needs and Market Assessment, and Service Standard Recommendations) provide greater detail and analysis on the services and needs of the BCT network and community. These analyses, combined with input from BCT staff, stakeholders, existing riders, and potential riders will help identify unmet needs and opportunities and guide the recommendations for service modifications.

KEY FINDINGS

The Existing, Planned, and Future Conditions Report addresses opportunities to improve transit in Broward County. Some of the most significant key findings are summarized here. Additional detail and context can be found in subsequent sections of the report.

- Broward County is a very diverse community, with racial and ethnic diversity that is only matched by a handful of places nationally, and travel behaviors unique to the area.
- The population growth in South Florida has historically been quite robust, but recent trends suggest this may be slowing as developable land shrinks. Forecasts for 2045 show additional population gains, but mostly in areas which are already well-developed, creating higher density. Higher density developments are more likely to produce higher transit ridership.
- South Florida is experiencing record-low unemployment, creating an environment favoring employees and those seeking work. While certainly a positive story, this condition creates challenges for employers filling work. Removing mobility barriers for the workforce becomes even more imperative.
- The current bus network provides a strong level of coverage to virtually all the areas with population or job densities that are supportive of fixed-route public transit. Service coverage is only the most basic element, and future COA work (Mobility Needs and Market Assessment) will evaluate how well that service provides mobility.
- The PREMO Network will also provide strong coverage to almost all those communities where transit usage is most likely to be strong. Many of the key communities in the county will be served by more than one PREMO service. Upcoming COA tasks will evaluate popular trip patterns in relation to where these routes go to identify potential gaps, ultimately informing recommendations for transit service supporting the PREMO Network.

NEXT STEPS FOR THIS INFORMATION

The Existing, Planned, and Future Conditions Report sets the stage for the next several tasks of the COA. The report identifies key focus communities that are most favorable for strong transit usage based on population

characteristics. In future tasks, the most prevalent travel patterns from these communities (both transit riders and non-riders alike) will be identified and compared to the current and planned PREMO Networks. These common trips will be simulated and compared to other modes to evaluate where in the transit network strategic adjustments can create mobility gains.

Future tasks will build on the system-wide performance information from this report by evaluating service by route, by segment, and by stop. Identifying key travel markets, how well the current service responds to these key markets, and how well each service performs are the most important baseline information for creating and evaluating alternative near-, mid- and long-term transit networks.

REPORT STRUCTURE

This report is organized into following sections:

Existing Demographics: This section presents the population estimates and reviews demographics of Broward County. Demographics have been examined with emphasis on populations who are historically underserved such as low-income and minority populations.

Transit Propensity: This presents an index demonstrating the degree of likelihood of different demographic groups to use transit with geographic distribution. Additionally, select areas in the county with the highest likelihood to use transit are identified and travel patterns from these areas will be an emphasis in later tasks of the COA.

Existing and Planned Transit Service: This section presents an overview of the existing transit system in the county with emphasis on different types of services that are available to the users, customer amenities, and ridership trends. Further, this section touches base with the future development plans of the county in regard to the transit services.

Future Land Use: This section discusses the future land use plans of the county with emphasis on the medium to high density residential areas and regional activity centers.

Key Take-a-Ways from Other Planning Documents: This section presents an overview and key findings from other planning documents relevant to Broward County.

Additional information is available in a series of Appendices for reference and additional detail:

Appendix A: Transit Propensity Definitions and Weights

Appendix B: Points of Interest

Appendix C: Demographics within catchment area of fixed route system

Appendix D: Demographics within catchment area of community shuttles

2 EXISTING DEMOGRAPHICS & EMPLOYMENT

This section presents a broader description of the demographics and employment in Broward County, including the distribution of people and jobs within the county and comparisons between the county and the state of Florida. Additional information is provided on key demographic groups known to need and use transit service more frequently such as low-income population, minority population, unemployed individuals, and households with zero vehicles.

2.1 POPULATION

Why is this important?

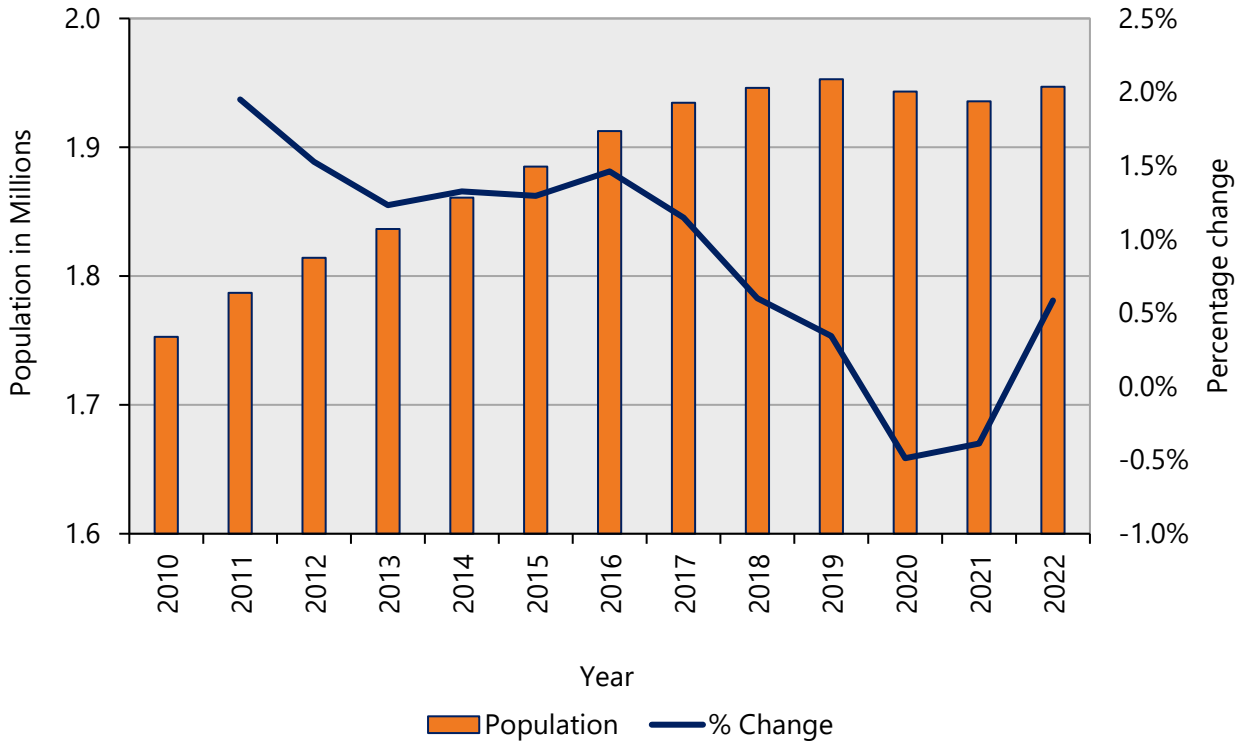
The size and distribution of the population will help us in understanding the potential ridership demand for transit services in the service area to prioritize areas for transit coverage, ensuring that services are accessible to a significant portion of the population.

Existing Population

Population density is a key factor in the effectiveness and utilization of transit services. A higher population density in an area creates more potential riders and therefore supports higher service levels. Conversely, lower population density in an area translates to fewer potential riders, supporting lower service levels or alternative transit options.

Figure 1 shows the population profile of Broward County from 2010 to 2022. Although population grew between 2010 and 2019, the annual rate of increase declined over this period. Years 2020 and 2021 show the first consecutive annual declines in Broward County population over this period, with annual population declining 0.5% and 0.4% respectively. Between 2021 and 2022, population resumed its growth projection with an increase of 0.6%, though the most recent population estimate remains lower than 2019.

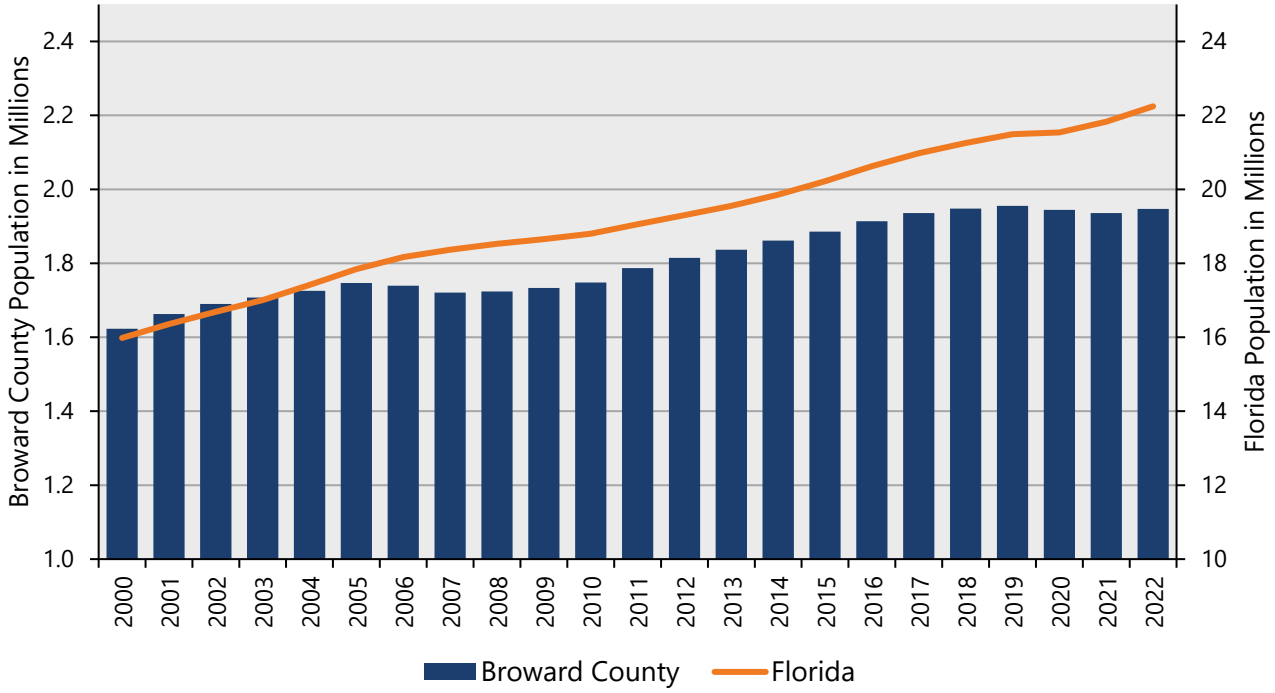
Figure 1. Broward County Population Estimates



Source: US Census Population Estimates

Figure 2 shows how the population increases over time in Broward County compares to the state of Florida. The graphic shows that the plateauing of population in the county is similar to what occurred between 2005 and 2008 in Broward County, immediately following Hurricane Wilma in 2005 and concurrent with the housing crisis of that time. It is possible the recent stall in population may similarly be temporary, and population growth may resume during the next decade. What is clear is that even over the long term, the growth in the county does not match the growth in the state as a whole, likely due to less remaining developable land and the higher housing costs in South Florida.

Figure 2. Broward County And Florida Comparison of Population Change



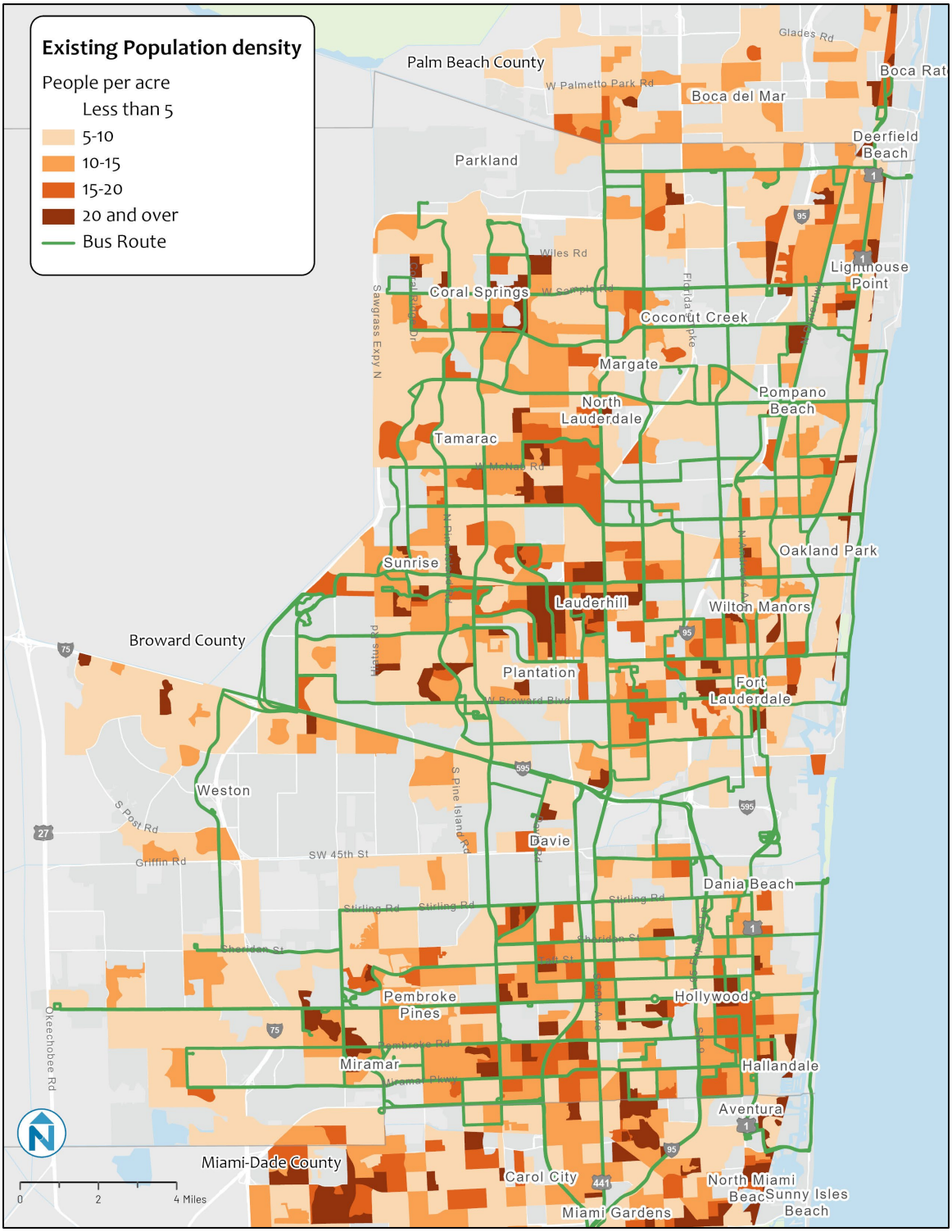
Source: US Census counts for 2000, 2010, and 2020; US Census Bureau Intercensal Estimates for all others

Figure 3 shows the distribution of population in Broward County. Population density is a key driver in determining areas for transit service to focus. Areas with high population densities include Lauderhill, Lauderdale Lakes, Sunrise, North Lauderdale, and the southern part of the county (Hollywood and eastern part of Miramar). Lauderhill has the largest concentration of high-density population and is also served by numerous transit routes including Routes 18, 19, 36, 40, 72, and 81, and the U.S. 441 Breeze.

Other areas with high density include areas of Fort Lauderdale, northwest of downtown with service by multiple routes, due to its proximity to Broward Central Terminal; North Lauderdale served by Routes 19, 55, 62 and the U.S. 441 Breeze; and the southern part of the county, along and south of Pines Boulevard/Hollywood Boulevard. This latter area is served most often by east-west services such as Routes 5, 7, and 28 which cross most of the populated area, along with north-south routes along major cross streets.

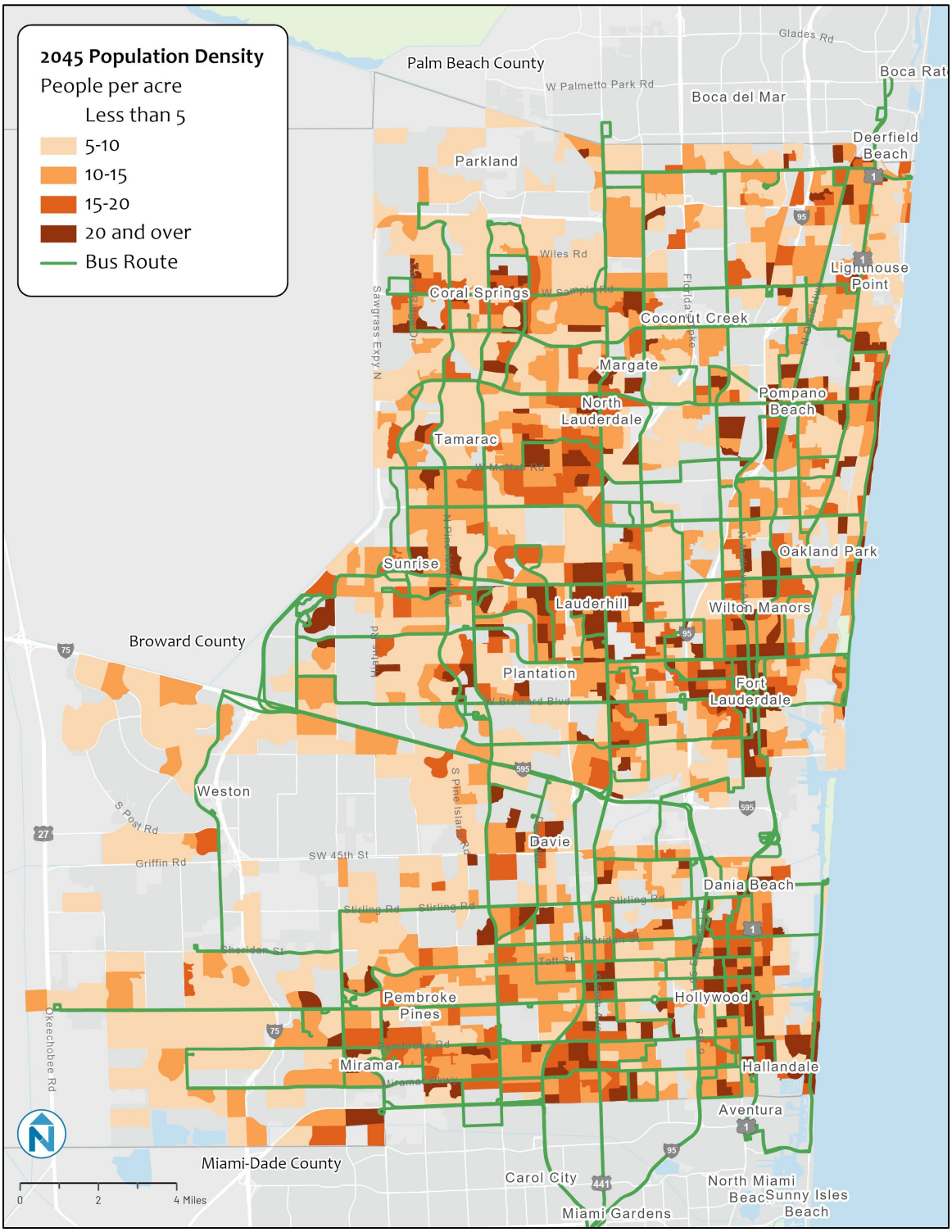
Figures 4 and 5 show 2045 projected population according to the Southeast Florida Regional Planning Model (SERPM), along with the population forecast growth from 2015-2045. Locations for higher projected population growth are central Fort Lauderdale, Pompano Beach, Deerfield Beach, and Oakland Park; the U.S. 1 corridor through Dania Beach, Hollywood, and Hallandale Beach; the area near Sawgrass Mills Mall; and nearly the entire U.S. 441 corridor. In each case, the existing transit service features multiple routes, and in most cases Breeze service.

Figure 3. Existing Population Density



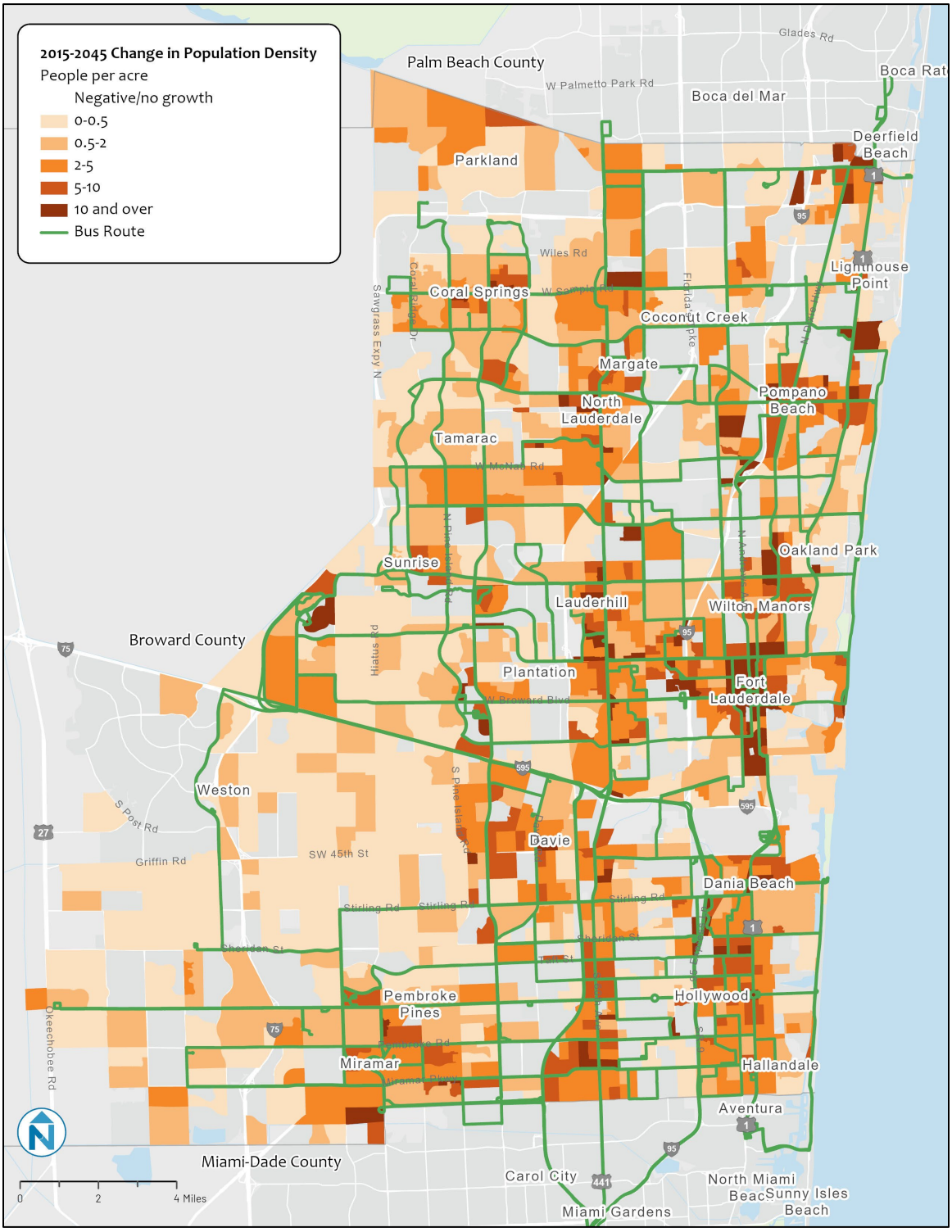
Source: American Community Survey, 5-year data, 2021

Figure 4. Future Population Density



Source: Southeast Florida Regional Planning Model (SERPM)

Figure 5. Change in Population Density



Source: Southeast Florida Regional Planning Model (SERPM)

What does this tell us?

- After years of consistent growth, the population of Broward County and Southeast Florida has plateaued in the past five years. Forecasts for future population show continued increases, concentrated in existing well-developed areas such as Downtown Fort Lauderdale, and the U.S. 1 and U.S. 441 corridors.
- The largest existing population centers as well as the areas with highest projected growth are all currently served by BCT, with most areas traversed by multiple routes.

2.2 EMPLOYMENT

Why is this important?

In most communities, the most prevalent trip purpose is people traveling to and returning from work. Work and school trips tend to be regular activities for most individuals and these types of trips have traditionally been where transit has had the most success at capturing travel market share. As such, determining those parts of the communities where jobs are located is important in quantifying the places most likely to be popular trip destinations.

Work locations also represent locations where other trips occur, such as for shopping, dining, or medical purposes. Work trips can serve as a useful proxy for the scale of activity, because as a customer base grows so must its labor force. Measuring employment therefore serves both directly and indirectly as a good means of identifying destinations that tend to be most popular.

Existing Employment

Broward County, along with Miami-Dade County and Palm Beach County, make up the Miami-Fort Lauderdale Metropolitan Area. Most residents in Broward County don't cross county boundaries to work, as 77.3% work within the county, shown in **Figure 6**. Of those who do travel out of the county for work, Miami-Dade County is the most popular destination, attracting 15.2% of Broward County residents who work. Palm Beach County is the work destination for 6.1% of workers who reside in the county. For work trips into the county, there are fewer workers coming into the county from Miami-Dade and Palm Beach Counties than going the other direction; 84.6% of employees in Broward County live in the county, shown in **Figure 7**.

Figure 6. Work County for Broward County Employed Residents

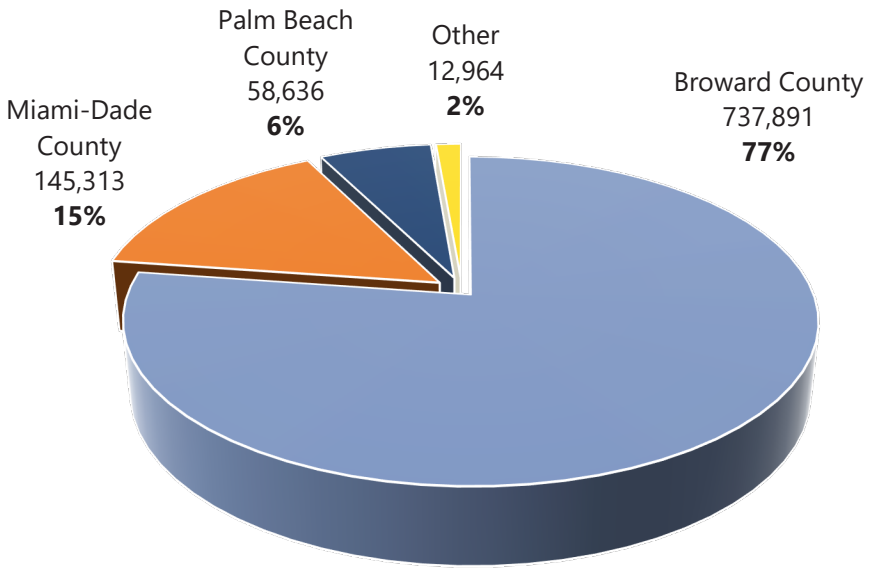
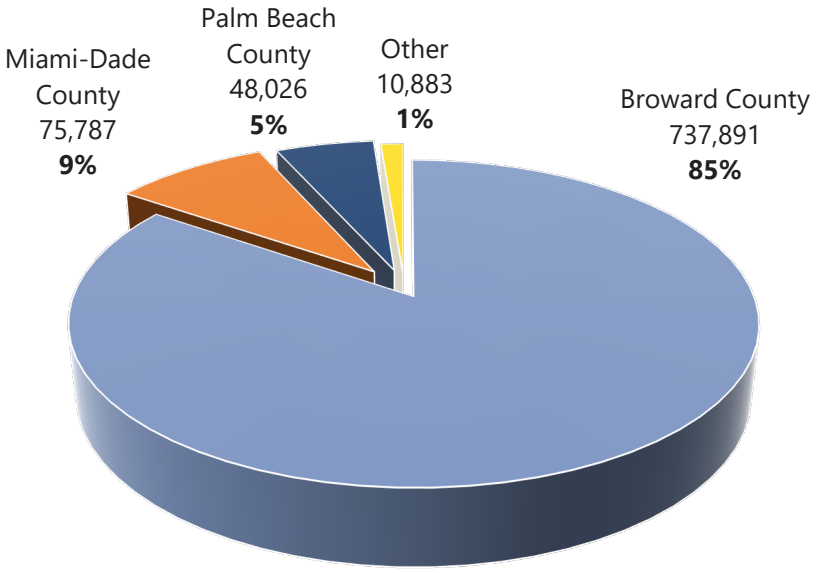


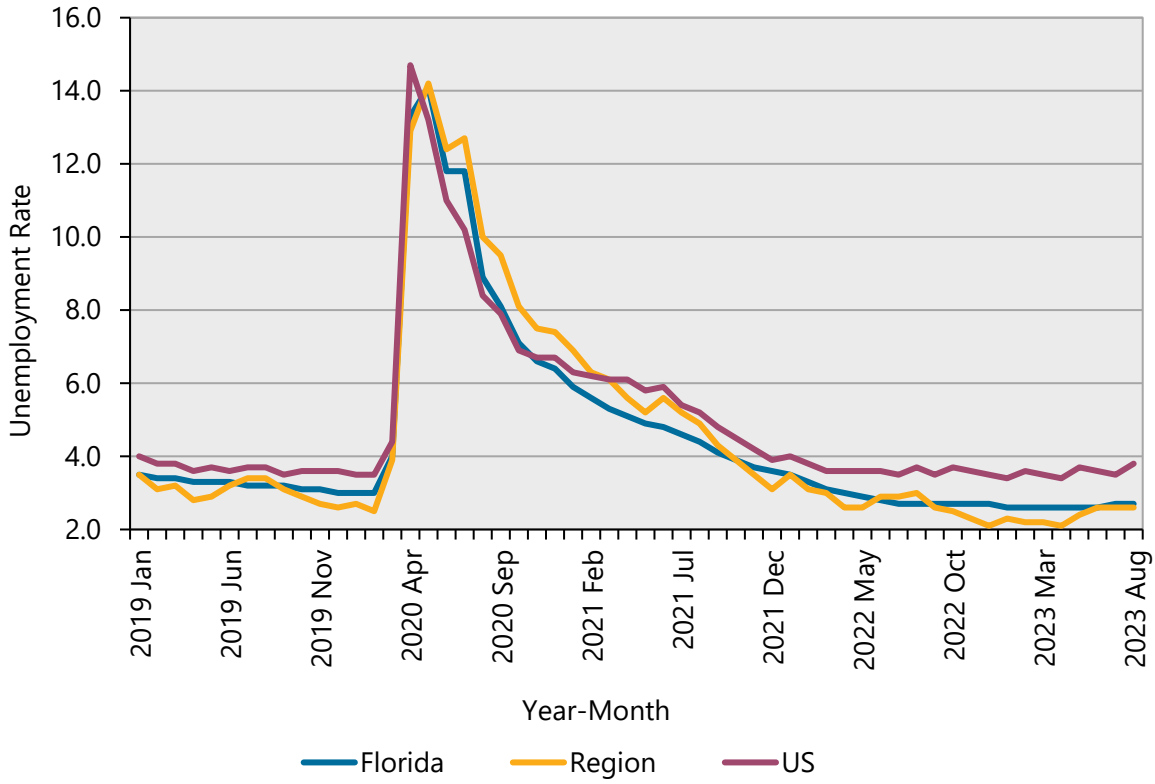
Figure 7. Home County for Workers in Broward County



Source: American Community Survey County-to-County Commute Flows, 2016-20

Figure 8 displays unemployment rates from 2019 through August 2023 for the United States, the state of Florida, and the Miami-Fort Lauderdale-West Palm Beach region. The COVID-19 pandemic effects are clear, as well as the effects of re-opening. From late 2021 to current, labor conditions across the county, state and region have been very favorable for workers with unemployment rates staying below 4% nationally. The rates in the South Florida region have been even tighter, and unemployment is as low as it has been at any time since the Bureau of Labor Statistics (BLS) began publishing local area employment numbers in 1990.

Figure 8. Unemployment Rates for US, Florida, and the Southeast Florida Region



Source: Bureau of Labor Statistics

What does this tell us?

- While there is some commute travel across county lines, the large majority of residents of Broward County work within the county. Commute travel to and from Miami-Dade County is a larger market than to and from Palm Beach County.
- The regional unemployment rate has hit lows in 2023 that are lower than at any time since the data has been available. The tight labor market means many jobs are likely not filled for employers. For the benefit of the regional economy, this increases the need to ensure residents who seek work have strong mobility options to get there.

- The strong labor market has not yet resulted in BCT ridership returning to its pre-COVID levels, suggesting the pandemic recovery for the economy overall has been quicker than the recovery of transit travel. (This is true in many areas of the United States.)
- Transit agencies themselves have labor needs to fill and the regional job market will likely mean continued challenges in filling job vacancies as they occur.

Employment Locations – Existing and Future

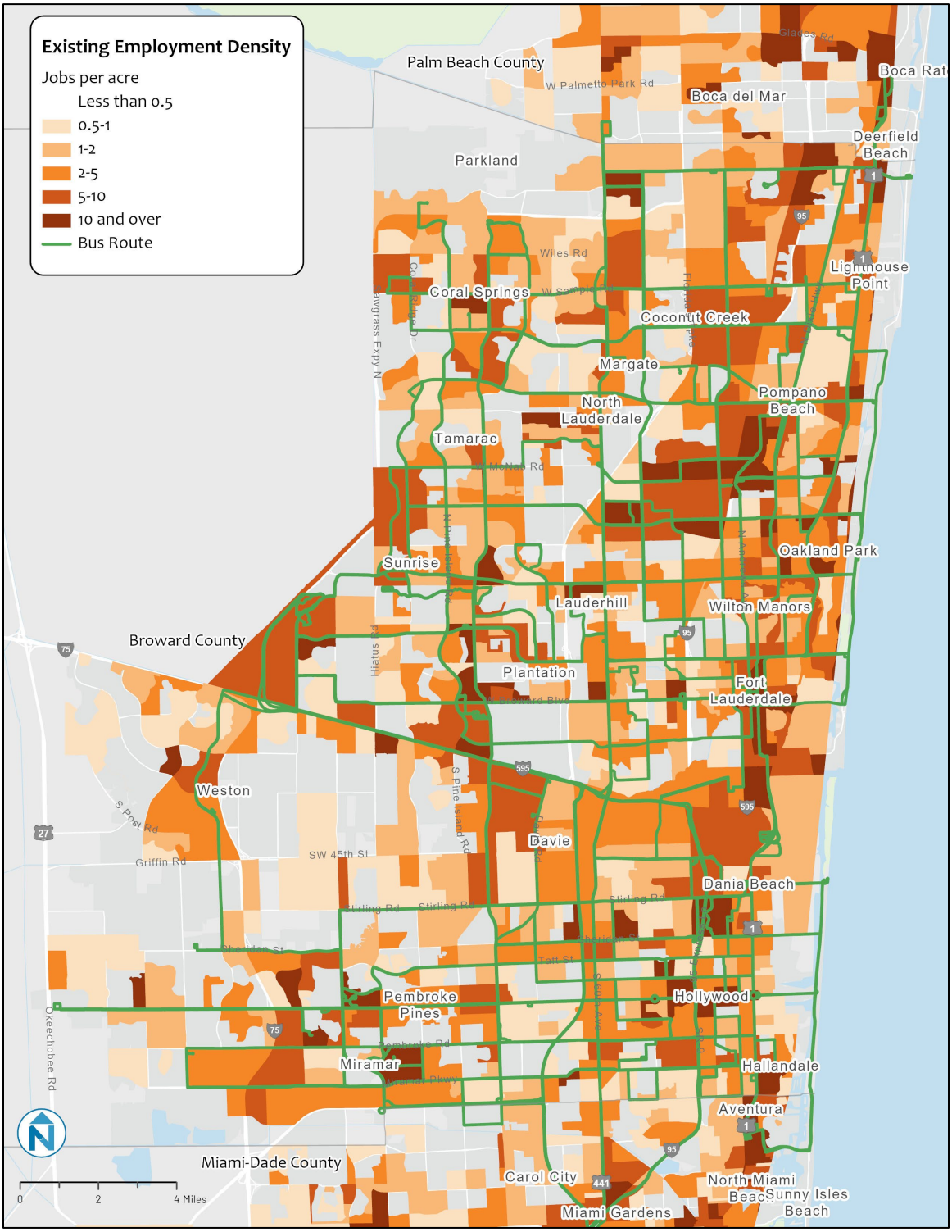
Figure 9 shows the distribution of jobs in Broward County. There are numerous job centers spread throughout the county with many of the largest concentrations being along major corridors such as U.S. 1 (Hallandale Beach, Hollywood, Dania Beach, Fort Lauderdale, Deerfield Beach); Interstate 95 near and south of Pompano Beach; University Boulevard near Interstate 595; Pines Boulevard in Pembroke Pines; and the Sawgrass Expressway (in Parkland, Sunrise, and Weston).

In looking at future employment and expected growth areas (**Figures 10 and 11**), the same trend applies – the largest employment centers are generally located near the major corridors in the county's transportation network. Some of the areas with highest projected job growth rates are Downtown Fort Lauderdale, the areas surrounding Interstate 95 corridor in Pompano Beach, and the Sawgrass Mills mall area.

As the areas of highest employment relate to the existing transit network, the below are several findings:

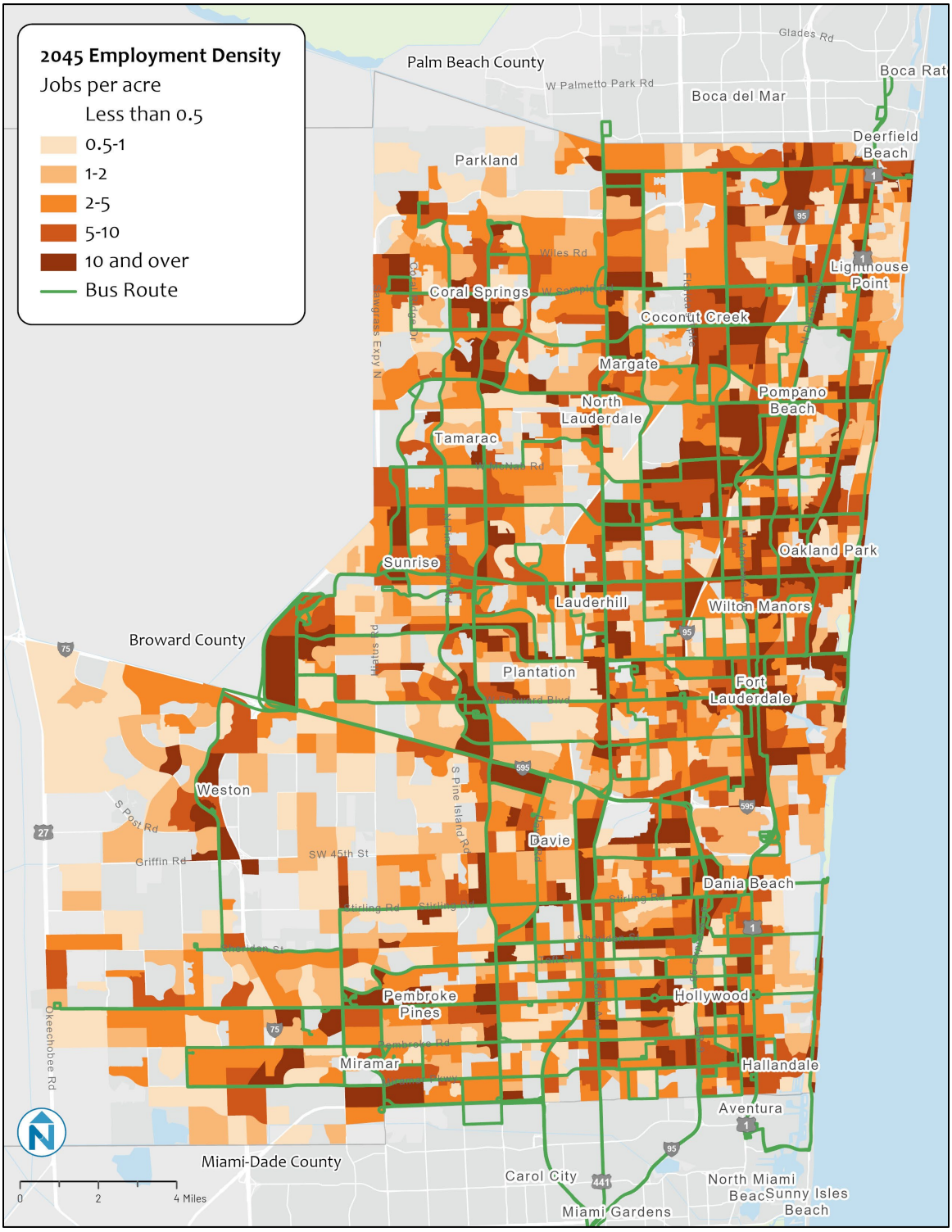
- Route 1 and the U.S. 1 Breeze service connect many of the areas with high job density areas in Southeast Broward County particularly the corridor south from Downtown Fort Lauderdale to the Airport.
- In Pompano Beach, Routes 14, 60, and 62 all serve the area of high employment density near Interstate 95 and Cypress Creek Road.
- Route 48 along Hillsboro Boulevard connects all of the northernmost employment centers. North-south service along Routes 10, 19, and 31 also serve these areas.
- There is service from numerous routes in the area of University Drive north of Interstate 595 near Westfield Broward Mall. Routes 2, 12, 22, 30, and 88 all cross through this area.
- The largest employment centers in the southwestern part of the county in Miramar and Pembroke Pines are mostly served by east-west running routes – Routes 5, 7, and 28. Route 23 connects Pembroke Lakes Mall to areas of the north.
- Some smaller areas of employment along the Interstate 595 corridor between Pine Island Road and Flamingo Road in Davie lack local transit service.

Figure 9. Existing Employment Density



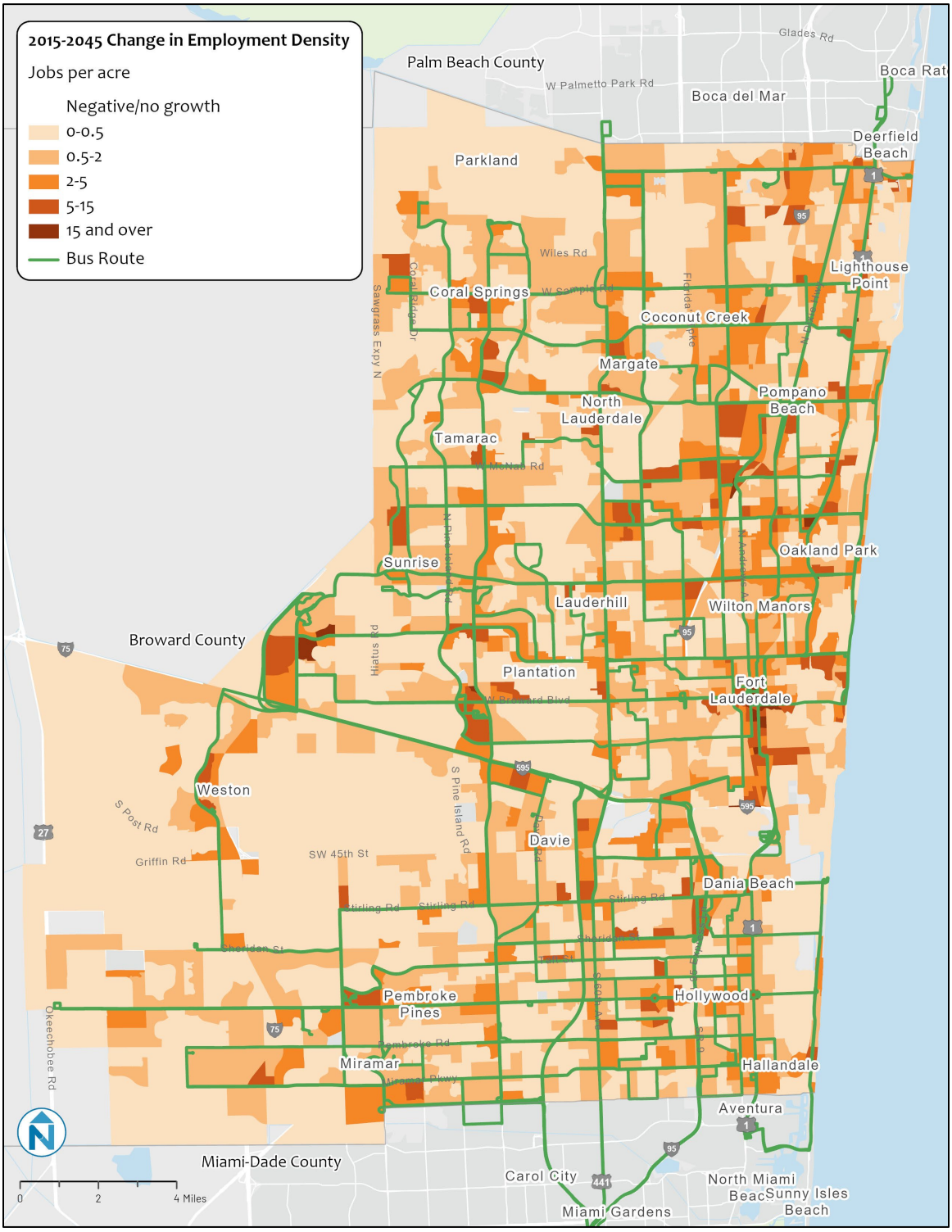
Source: Longitudinal Employer-Household Dynamics, 2020

Figure 10. Future Employment Density



Source: Southeast Florida Regional Planning Model (SERPM)

Figure 11. Change in Employment Density (2015 - 2045)



Source: Southeast Florida Regional Planning Model (SERPM)

What does this tell us?

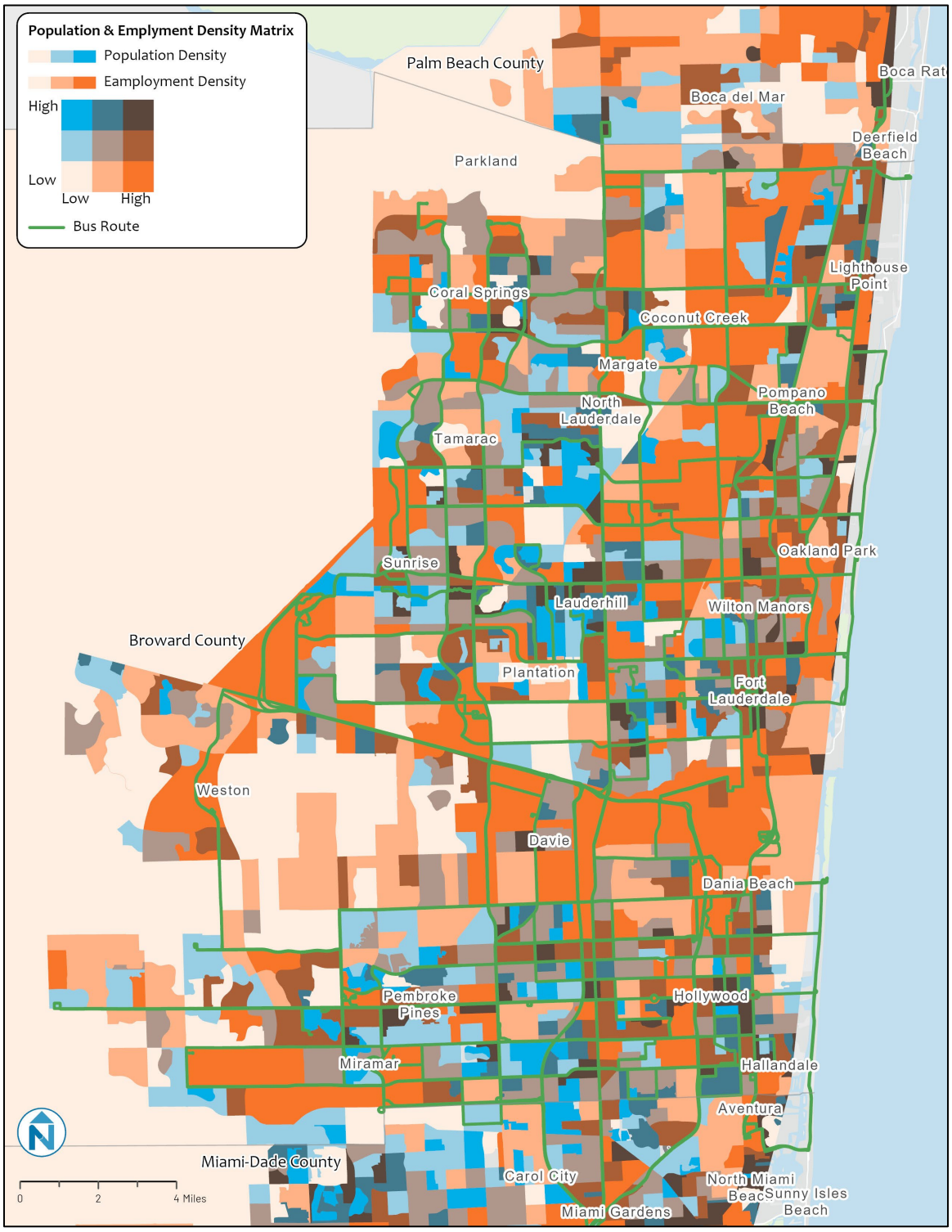
- Employment growth over the next 30 years is expected to be modest in many parts of the county, but several existing employment centers are expected to continue to add jobs, with the highest growth rates near Downtown Fort Lauderdale and near major transportation corridors such as Interstate 95 and the Sawgrass Expressway in the northwest of the County.
- While employment is quite dispersed throughout the county, there are no clear or significant gaps in the bus network with respect to current or future areas of employment concentrations. While the coverage of service is adequate, identifying travel movements for both transit riders and non-riders will be important in assessing mobility into and out of these locations in the Mobility Needs and Market Assessment.
- The gap along Interstate 595 and the fewer north-south connections for Pembroke Pines and Miramar suggests a route along Nob Hill Road or Hiatus Road across the Interstate may be warranted. Trip patterns from these areas will be important in confirming this need.

Population and Employment Density

Figure 12 overlays population and employment. While the specific findings from this map are certain to match those of earlier parts of this document, overlaying these two does help in two important ways. First, where both residences and employment are found in the same locations, the ability for people to access daily needs by means such as walking and bike increases. While on the surface those modes may seem to compete with transit, the modes are compatible and areas that have more people walking and biking also have been shown to generate more transit trips. The darkest areas of the map – places such as Hollywood, Downtown Fort Lauderdale, Lauderhill, and others show high levels of both residences and employment.

This analysis also shows how closely various employment areas are to the population areas that can create the workforce to fill those jobs. This will impact trip distances for work trips, which influences the mix of services appropriate to serve them. For example, the large employment area in Pompano Beach is adjacent to areas west and south with high levels of population density. Conversely, employment areas such as Davie or the Sawgrass Mills Mall area are slightly farther from large population clusters, and therefore likely require longer trip distances for workers to reach.

Figure 12. Population and Employment Density



Source: Longitudinal Employer-Household Dynamics and American Community Survey, 2021

2.3 COMMUNITY CHARACTERISTICS

Why is this important?

Identifying the distribution of the low-income individuals, minority populations, and zero vehicle households is fundamental for planning an effective transit system. These characteristics are known to be common in transit users, and as such, addressing their unique needs and challenges ensures that public transportation services are accessible, well-connected, and enable all members of the community to access essential resources and opportunities.

The consideration of low-income individuals is crucial as these individuals often heavily rely on public transportation as their primary mode of travel due to the high cost of automobiles. Identifying zero-vehicle households is also important, because households without automobiles have fewer transportation options and therefore oftentimes rely on transit for mobility.

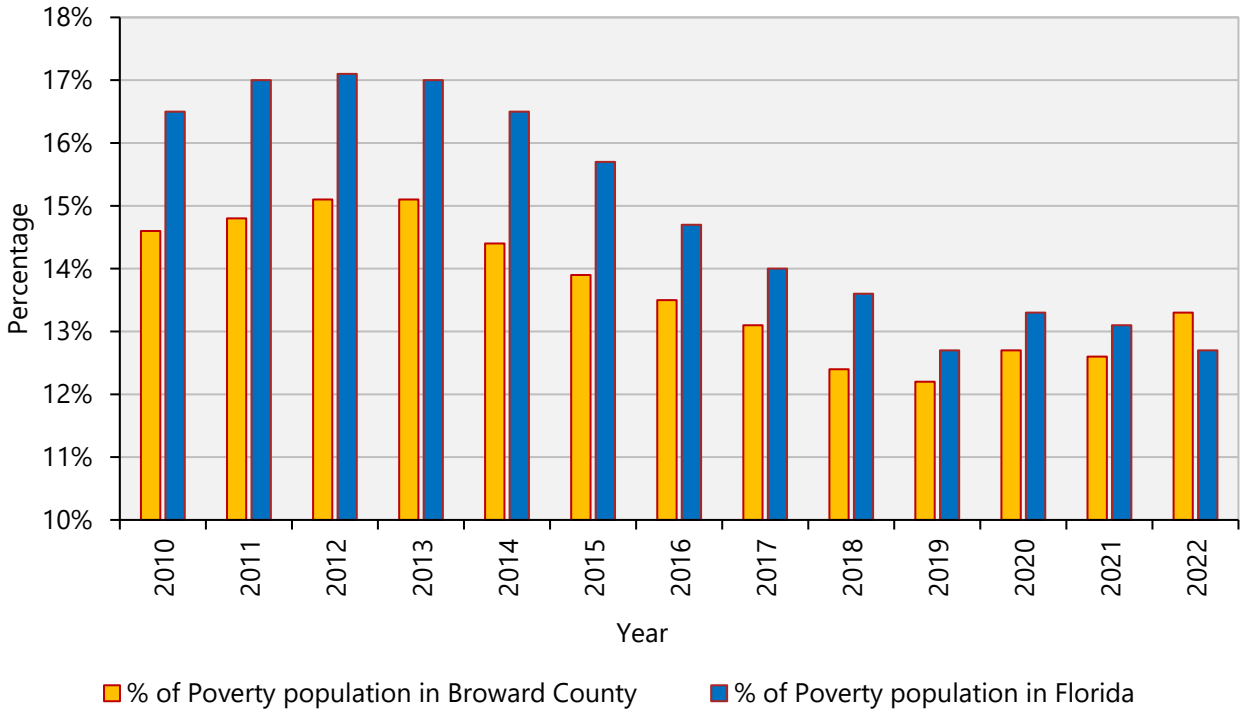
Minority populations, including racial and ethnic minorities, are also integral to transit planning. Often, minority communities face historical disparities in transportation infrastructure investment, which can lead to limited access to opportunities and resources. Identifying where minority populations are concentrated helps rectify these inequities by directing transit improvements to underserved areas. However, it is essential to note that not all minority groups may rely on public transit exclusively, and their transportation needs can vary significantly. In Broward County, for example, while transit market share is much higher among the African American population than other racial groups, the Hispanic population actually uses transit less frequently than the county average.

Low-Income Population

Figure 13 shows the percentages of people living in poverty in Broward County along with the corresponding statewide data for Florida. In 2010, there were 254,040 people living in poverty in Broward County, which accounted for 14.6% of the county's total population. The percentage of the population in poverty fell from 2012 to 2019 before the COVID-19 pandemic but has risen since.

Compared to the state of Florida, the poverty rates in the county were lower than in the state. However, by 2019 the gap had shrunk significantly, and now poverty rates for the state and county are similar.

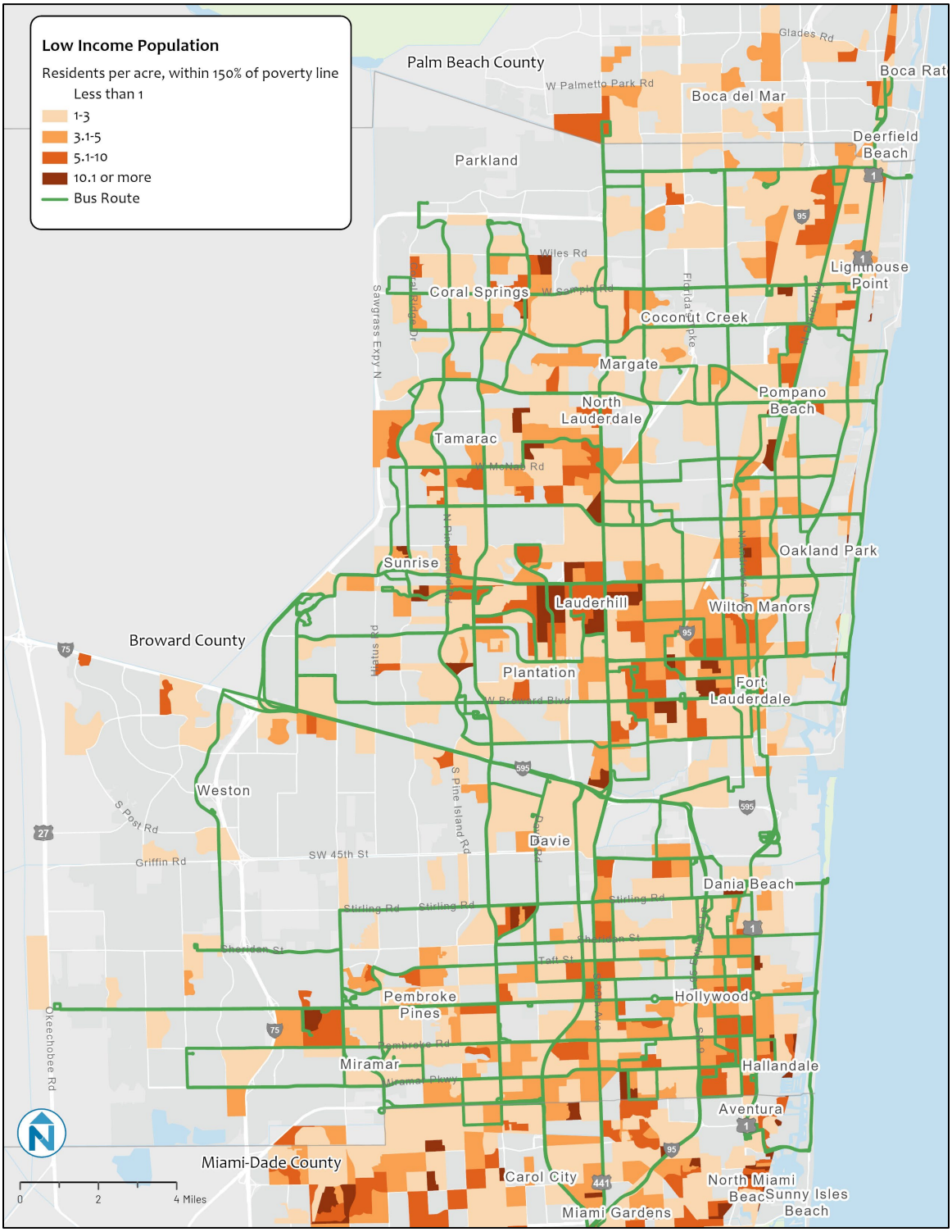
Figure 13. Broward County and Florida Poverty Population



Source: ACS 1-Year Estimates, Poverty Status

Figure 14 shows the distribution of people in Broward County who live below 150% of the federal poverty level. This analysis uses the U.S. Census definitions of poverty based on household size to define and identify low-income individuals. Since disposable income is largely a factor of household size and household income, the census considers household income and the number of members in the household in classifying a household as in poverty or not. A threshold of 150% of the poverty level is chosen here because it typically represents the range of income levels that use transit the most.

Figure 14. Density of Low-Income Population



Source: American Community Survey, 2021

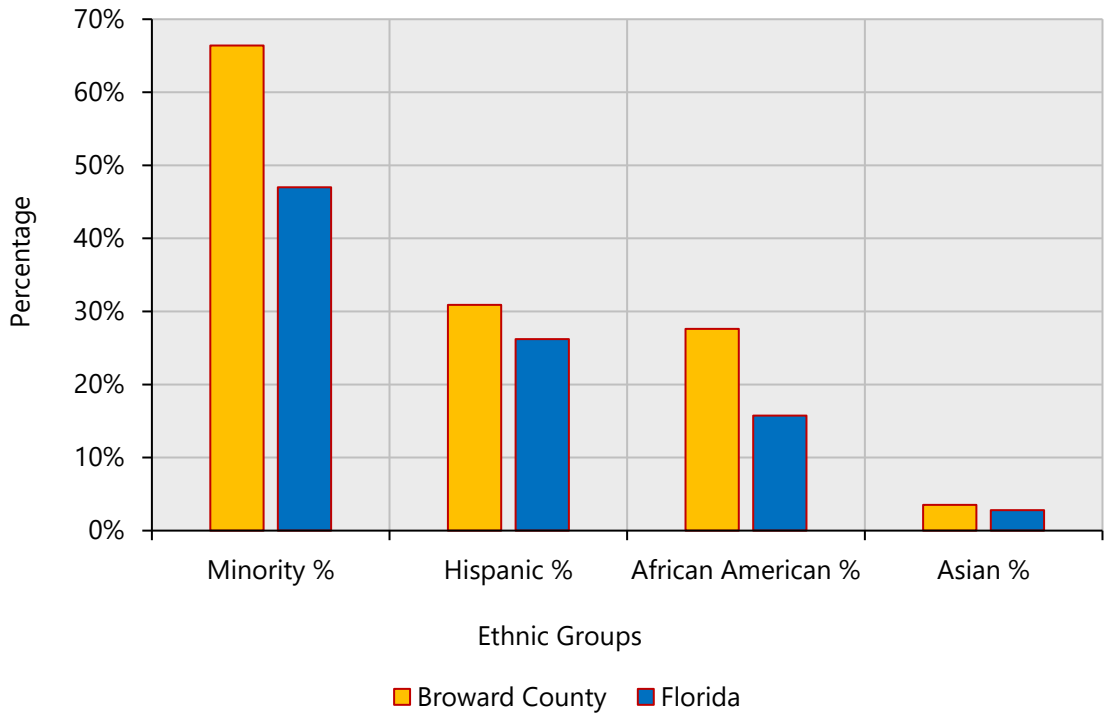
What does this tell us?

- Low-income populations are highly concentrated in Lauderhill, Hollywood, Fort Lauderdale, and Miramar.
- Other areas with a moderate number of low-income households are Deerfield Beach, Coral Springs, and Pembroke Pines.
- Routes 11, 72, and 81 serve some of the densest block groups with low-income residents.

Minority Population

Minority population is defined here as all people who identify their race as something other than white alone, and who are not Hispanic. Most residents of Broward County fit into this category, given the diversity of the population. Indeed, Broward County has the highest Diversity Index of any county in Florida, and no race or ethnic group composes more than 35% of the population.[1] In both Broward County and Florida, the Hispanic population is the largest ethnic group in terms of size, followed by African American and Asian populations.

Figure 15. Minority Population in Broward County and Florida

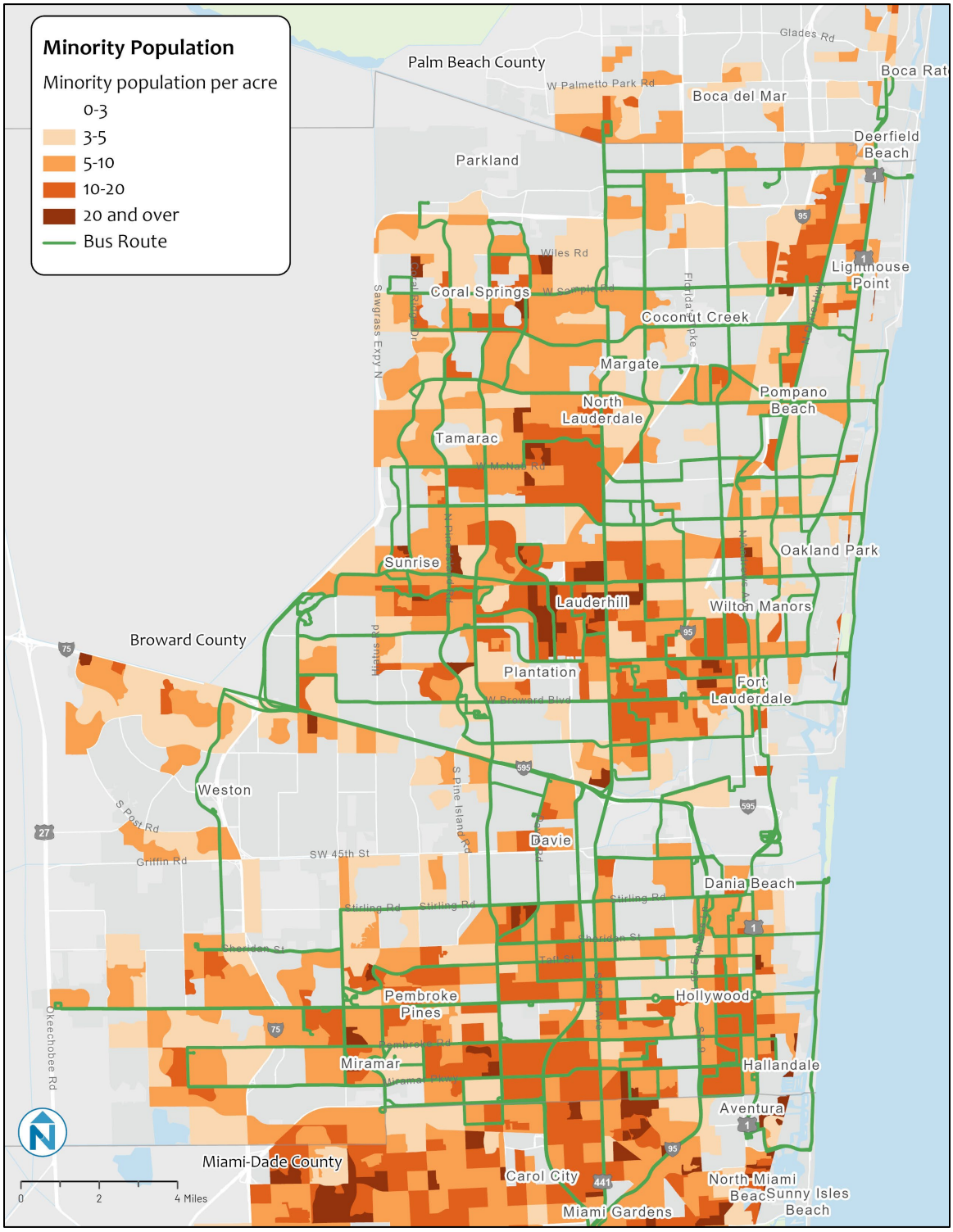


Source: U.S. Census Bureau, 2021 ACS 5-Year Estimates

Figure 16 shows the distribution of the minority group in Broward County, with the transit system. This analysis uses data obtained from the American Community Survey (ACS) for block group in Broward County.

[1] Diversity Index as defined by U.S. Bureau of Census using Census 2020 data for all counties in Florida.

Figure 16. Density of Minority Population



Source: American Community Survey, 2021

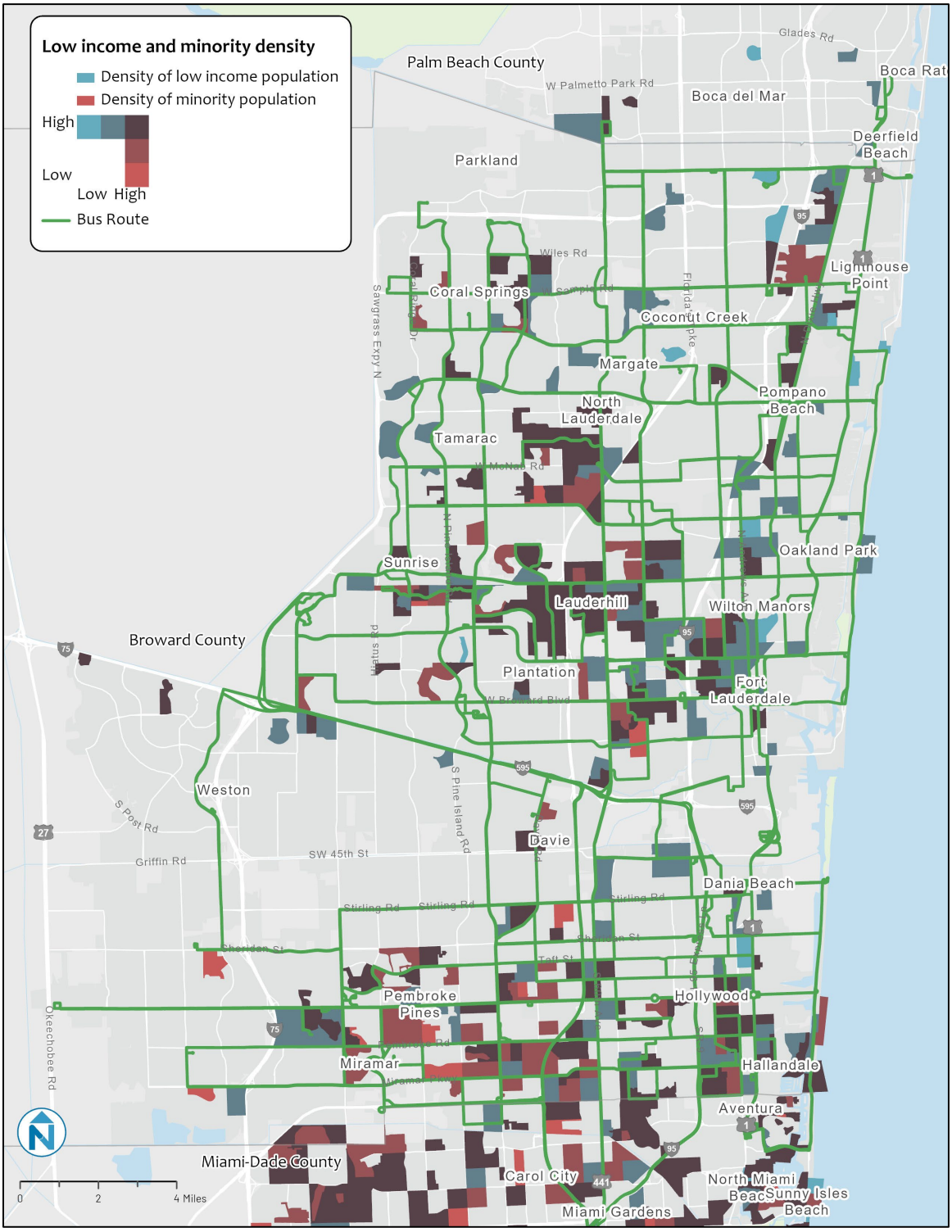
What does this tell us?

- Individual minority populations are concentrated in a few key areas. The locations with the largest proportion of Hispanic populations are in Hollywood, Coral Springs, and Pembroke Pines. The locations with the largest black populations are Lauderhill, Miramar, and Hollywood.
- Collectively, the largest concentrations of minority populations are in the southernmost portions of the county south of Sterling Road and an area along and west of U.S. 441 through Lauderhill, Lauderdale Lakes, and North Lauderdale. These areas are generally well served by transit.

Low Income and Minority Population

The low income and minority density in **Figure 17** is a combined index that identifies areas in the city with a high number of residents who identify as both low income and minority. The identification of minority groups within the low-income population allows for a better understanding of who transit riders are or where potential transit riders are located.

Figure 17. Low Income and Minority Density



Source: American Community Survey, 5-year estimates, 2021

What does this tell us?

- Low-income populations, which frequently overlap with minority communities, can be found in Lauderhill, Lauderdale Lakes, Fort Lauderdale, North Lauderdale, Hallandale Beach, and Hollywood.
- There are no identified gaps in the transit system, with regards to where people who identify as both low income and minority group live.

Zero Vehicle Households

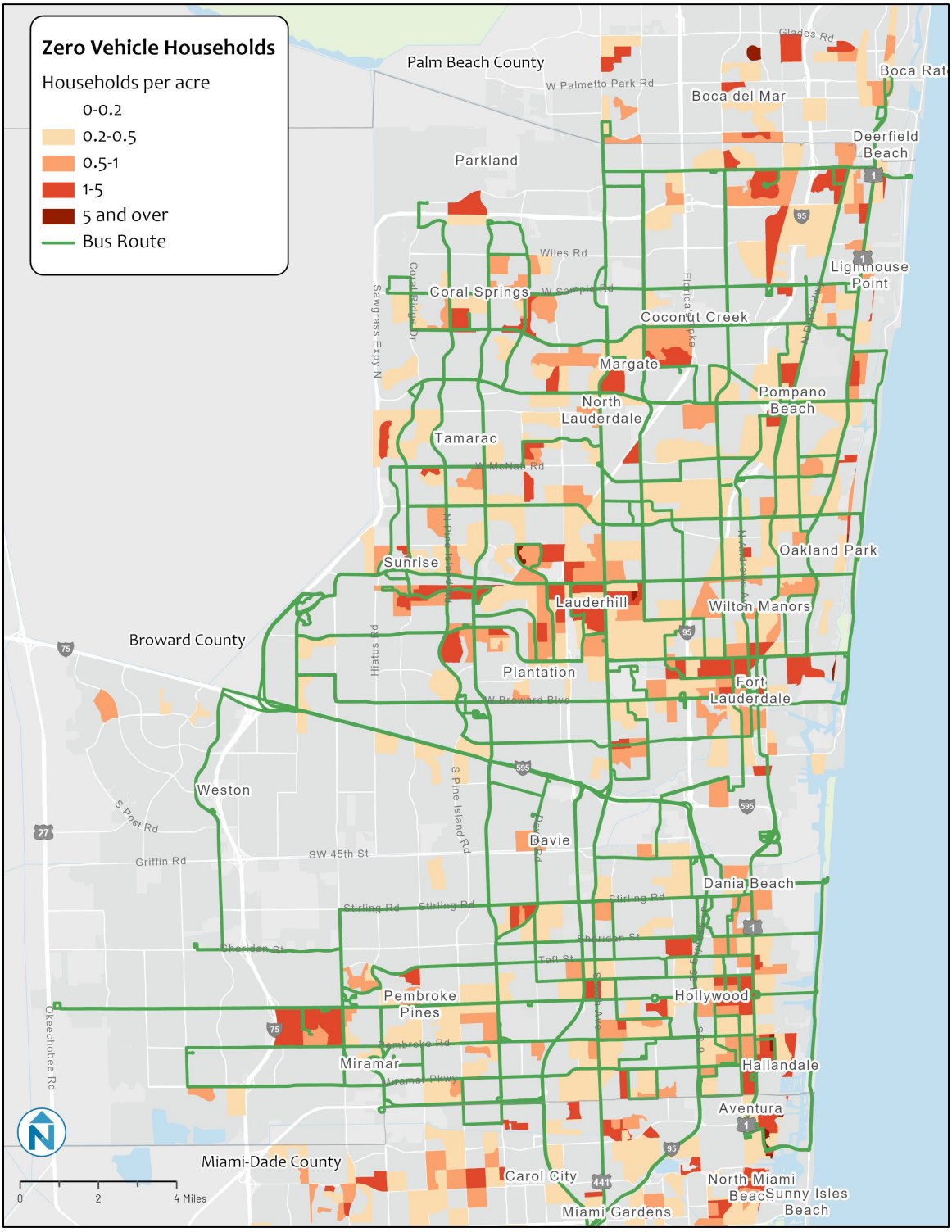
Table 1 provides information on zero vehicle households in Broward County and the state of Florida. Broward County has a higher percentage of zero vehicle households than the state of Florida as a whole, which is not surprising considering it is more urban than most of the state. Given this, Broward County has a larger proportion of its households that may rely on public transportation, due to their lack of access to private vehicles. **Figure 18** shows the distribution of households with access to a personal vehicle in relation to the existing transit system.

Table 1. Broward County and Florida Zero Vehicle Households

Geography	Total Households	Zero vehicle Households	% of Zero Vehicle Households
Broward County	753,084	54,636	7.3%
Florida	8,826,394	527,270	5.0%

Source: 2022 ACS 1-year estimates

Figure 18. Density of Zero Vehicle Household



Source: American Community Survey, 5-year estimates, 2021

What does this tell us?

- The areas of the county with the highest density of zero vehicle households are dispersed but show many of the same distribution patterns seen with low-income population densities. The largest concentration is near Lauderhill, with places like Fort Lauderdale, Hollywood, Pembroke Pines, and Sunrise all having significant concentrations as well.
- There are no apparent service gaps in areas with elevated zero vehicle households. However, Military Trail north of Sample Road and the area near University Drive and the Sawgrass Expressway in Parkland may represent opportunities for improvement.

3 TRANSIT PROPENSITY

Why is this important?

Different demographic groups have a higher propensity to use transit than others. The purpose of a transit propensity analysis is to determine the extent to which certain demographic groups are more or less likely to use transit, and where those groups cluster in Broward County. A Transit Propensity Index (TPI) is calculated to determine markets with the most potential demand for transit services. The TPI is an assignment of how likely certain areas are to produce transit trips based on other household characteristics. Weights for transit propensity are customized based on existing transit commuters in Broward County. In other words, transit propensity is customized to match the transportation choices of the local community.

Transit propensity results are utilized to identify focus communities – known population clusters throughout the county where we are most confident a likely transit market exists. As these areas have higher concentrations of low-income and zero vehicle households in most cases, these focus communities also indicate where transit is most needed as well.

At later stages of our study, we will identify the most prevalent trips patterns that originate from these focus communities and then evaluate how well the current transit service serves those prevalent trips. As alternatives are developed in future stages, one evaluation factor is how well these improve mobility for these focus communities when making the most popular trips.

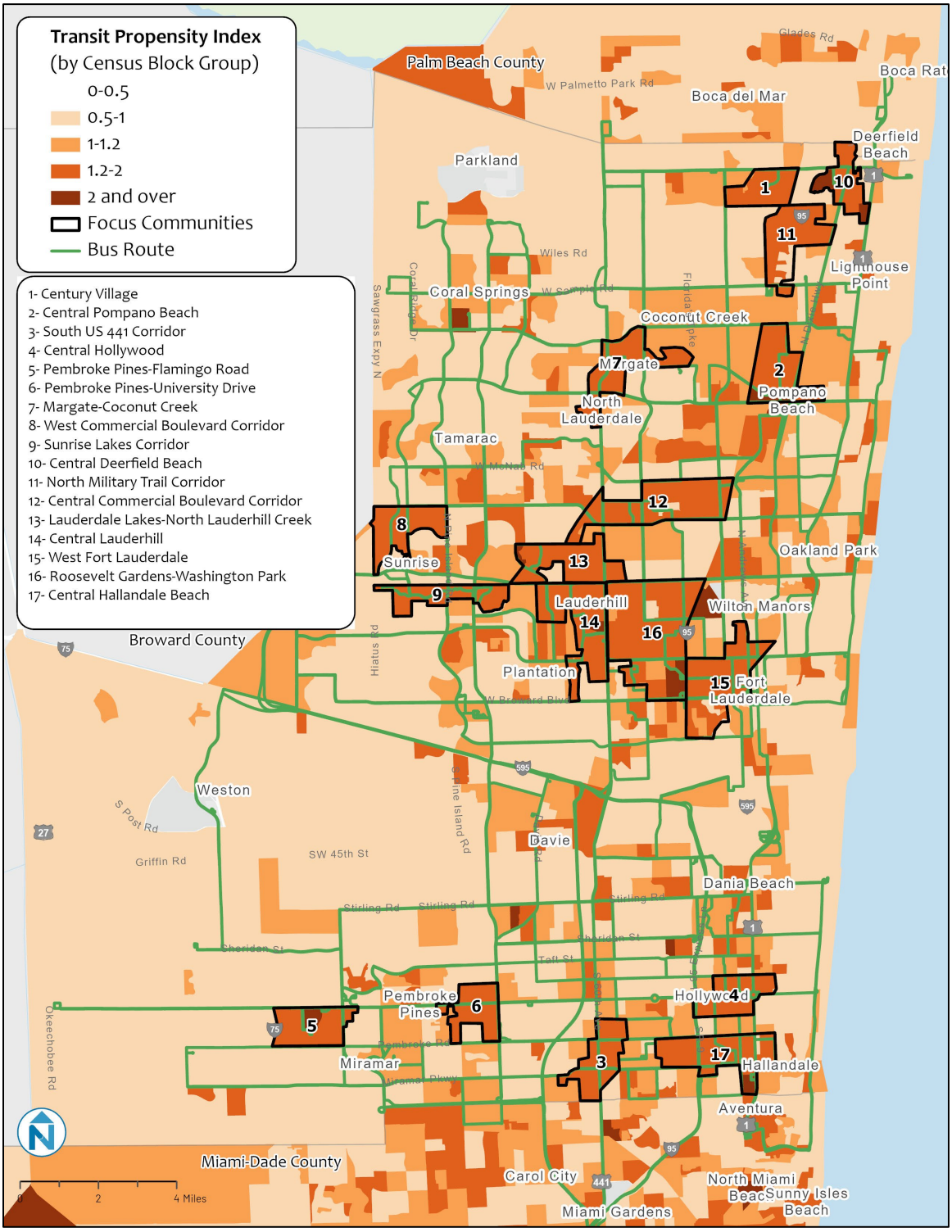
Transit Propensity Index Description

The Transit Propensity Index is a composite score of the density of population, and characteristics such as race, ethnicity, vehicle availability, tenure (whether a household is owned or rented), and income that show a correlation with transit usage in Broward County. Specific values for characteristics are shown in **Appendix A**; a transit propensity score of greater than one indicates a higher propensity than average while a score below one represents a lower propensity to use transit.

Focus Communities

Based on the transit propensity index map presented in **Figure 19**, seventeen areas have been identified as Focus Communities. These areas are compact collections of block groups that exhibit high propensity for transit use, with larger areas split into multiple communities. The demographics of these selected areas are presented in **Table 2**, including the population, employment, percentages of minorities, residents with no access to cars, and those living in poverty.

Figure 19. Transit Propensity Index



Source: Nelson\Nygaard based on American Community Survey, 5-year estimates, 2021

Table 2. Demographics of Focus Communities

Communities	Population	Pop. Density	Jobs	Emp. Density	% of Minorities	% Zero Veh. HH	% of People in Poverty
Century Village	16,262	5.6	2,902	1.0	33%	14.4%	23.7%
Central Pompano Beach	23,561	4.9	18,684	3.9	84.5%	12%	36.6%
South US 441 Corridor	37,535	11	9,705	2.8	88.3%	8.2%	28.8%
Central Hollywood	29,007	10.3	13,938	4.9	65.8%	12%	25.4%
Pembroke Pines-Flamingo Road	24,539	10.4	15,212	6.4	77.7%	17.8%	33.8%
Pembroke Pines-University Drive	25,625	8.3	6,782	2.2	79.7%	6.9%	24.2%
Margate-Coconut Creek	44,022	7.7	17,364	3	57.2%	9.8%	21.1%
West Commercial Boulevard Corridor	27,501	4.7	40,563	7	73.8%	7%	12.7%
Sunrise Lakes Corridor	34,091	12.6	41,111	15.2	76.1%	7.2%	22.8%
Central Deerfield Beach	27,025	9.2	16,287	5.5	63.4%	11.7%	26.6%
North Military Trail Corridor	48,514	8.7	26,453	4.7	65.8%	9.1%	29%
Central Commercial Boulevard Corridor	26,843	5.3	47,020	9.2	79%	9%	28.3%

Communities	Population	Pop. Density	Jobs	Emp. Density	% of Minorities	% Zero Veh. HH	% of People in Poverty
Lauderdale Lakes- North Lauderhill Creek	43,770	9.9	9,381	2.1	86%	12.5%	23.9%
Central Lauderhill	61,640	12	12,809	2.5	91.8%	13.2%	37.5%
West Fort Lauderdale	47,991	11.2	41,538	9.7	70%	9.7%	35%
Rosevelt Gardens-Washington Park	64,333	10	21,167	3.3	92.6%	10.2%	42.4%
Central Hallandale Beach	40,707	10.1	27,381	6.8	74.2%	11.1%	34.5%

Source: American Community Survey, 5-Year Data, 2021 for Population; LEHD, 2020 for Employment

What does this tell us?

- All of these focus communities are served currently by transit routes, and in many cases multiple routes. The North Military Corridor, however, is only served on its southern end by Route 34 and Tri-Rail.
- Out of all the focus communities, the densest ones are Sunrise Lakes Corridor, West Fort Lauderdale, South US 441 Corridor and Pembroke Pines-Flamingo Road with densities over 10 people per acre. These areas are also very high in terms of employment.
- All the selected areas have a minority percentage of above 50% except for Century Village. The areas with the highest number of minorities are Rosevelt Gardens-Washington Park and Central Lauderhill with over 90% of its population being minorities.
- All the selected areas have more than 15% of their population being below the poverty level apart from the West Commercial Corridor area with 12% of people living in poverty. Zero vehicle households in the selected areas are between 12% and 42%.

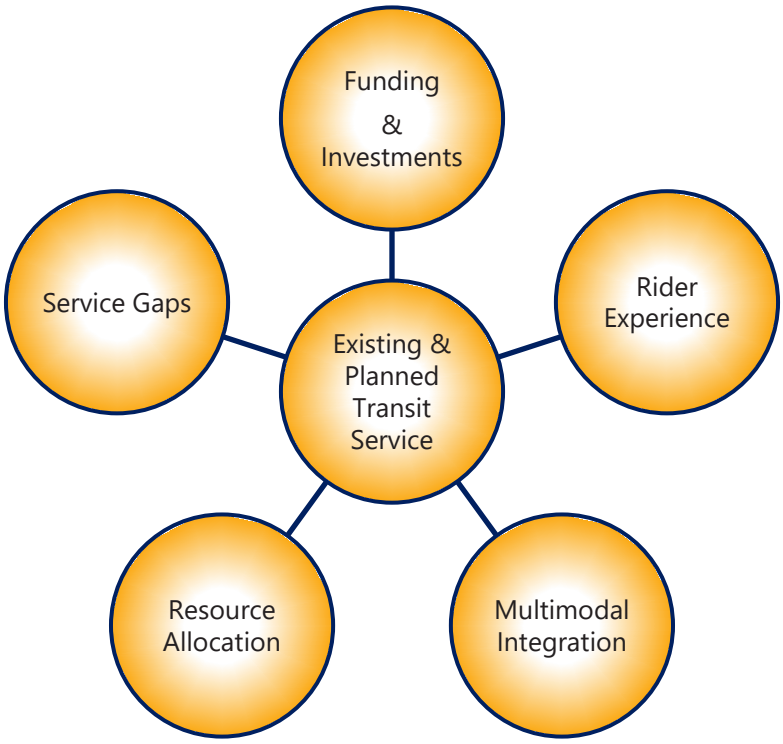
4 EXISTING AND PLANNED TRANSIT SERVICE

4.1 EXISTING TRANSIT SERVICE

Why is this important?

Documenting the existing and planned transit service is one of the fundamental steps in developing service recommendations as part of the COA. It helps in identifying service gaps, resource allocation, multimodal integration, enhancing rider experience and developing a clear understanding of available funds and future investments (**Figure 20**).

Figure 20. Importance of Assessing Existing and Planned Transit Service



Service Gaps: Locations that don't have access to transit service. This is particularly important when the locations have high minority and low-income populations.

Resource Allocation: Areas that have higher transit demand and lower transit supply should be supplemented with more service (additional routes, better frequency, longer span, etc.) to narrow down the demand-supply gap.

Multimodal Integration: Facilitating integration of multiple existing (bus, community shuttles, paratransit, commuter rail) and planned (PREMO) transit services for seamless movement of riders across the network.

Rider Experience: Enhancing the riding experience of users by assessing the service performance and customer satisfaction levels.

Funding & Investments: Utilization of available and anticipated funds to maintain existing services and implement future service plans.

Service Description

Three types of transit services are provided by BCT: fixed route, community shuttle, and paratransit. Fixed route service includes local, Breeze, and express services and operate on a fixed schedule. Community Shuttle is a collaborative transit service that operates in partnership with 19 Broward County municipalities. Paratransit service called TOPS! (Transportation Options) are provided within the service area and extends into Palm Beach County (to serve Florida Atlantic University) to address the travel needs of riders with physical, cognitive, and other disabilities that prevent them from using the local bus network. **Table 3** presents the types of services provided by BCT and their operational characteristics.

Table 3. Types of Service and Operational Characteristics

Service	Number of Routes	Days of Operation	Hours of Operation	Peak Vehicles
Regular (fixed)	36	All routes are operational on weekdays, 33 on Saturdays and 32 on Sundays	5:00 AM – 1:00 AM	226 on weekdays, 161 on Saturdays and 129 on Sundays
Breeze (fixed)	2	Weekdays	5:00 AM – 9:00 PM	14
Express (fixed)	5	Weekdays	5:00 AM – 9:30 PM	33
Community Shuttle	57	Varies by Municipality	Varies by Municipality	NA
Paratransit	NA	Service available during BCT's fixed-route service span	5:00 AM – 11:30 PM	231

The extensive network of transit services provided by BCT serves almost all the major 'points of interest' (food & grocery stores, library, health facilities, colleges & universities) in the county (see **Appendix B**). Further, the services also extend to Downtown Miami and southern parts of Palm Beach County. There are four major transfer terminals in across the county: Broward Central Terminal (Downtown Fort Lauderdale), West Regional Terminal (Plantation), Lauderhill Transfer Facility (Lauderhill), and Northeast Transit Center (Pompano Beach).

Fixed Route Service

Fixed route regular service operates on 36 routes during weekdays, 33 routes on Saturdays and 32 routes on Sundays. Breeze service is a fixed route service with a limited number of stops that are located at the major

intersections. The Breeze service operates on weekdays during morning and afternoon peak travel hours. There are 2 Breeze routes that operate on weekdays. The express service is a fixed route service that operates five routes, provides six free commuter park and ride locations, and travels along the major interstate highways to Miami-Dade County. Except express routes, nearly all of the fixed routes use one or more of the transfer terminals. These terminals provide connections between regular fixed-routes, Breeze routes, and community shuttle routes.

Service headways (in minutes) on the fixed routes varies based on time of the day and day of the week. Information on headways as of September 2023 is assembled in **Table 4** (for weekdays) and

114	20	NA	30	NA
441	35	35	35	30

Table 5 (for weekends). On weekdays, the service headways vary from 20 minutes to 65 minutes. On weekends, the service headways vary from 20 minutes to 60 minutes. **Figure 21** depicts all the fixed routes in Broward County.

Table 4. Weekday Service Frequency (in Minutes)

Route	Morning Peak	Midday	Afternoon Peak	Evening
1	25	25	25	30
2	25	25	25	25
4	34	40	40	40
5	55	55	45	40
6	50	45	45	40
7	25	25	25	20
8	43	43	43	45
9	52	52	55	55
10	30	30	35	30
11	45	45	45	45
12	30	30	30	30
14	25	25	28	28
15	65	NA	65	NA
16	42	45	45	45
18	20	20	20	20
19	20	20	20	20
20	50	50	50	50
22	20	20	20	30
23	45	NA	45	NA
28	30	25	30	30
30	30	30	30	30
31	30	30	30	35
34	20	30	20	40
36	25	25	25	25

Route	Morning Peak	Midday	Afternoon Peak	Evening
40	30	30	30	40
42	45	45	50	45
48	35	35	35	35
50	30	30	30	30
55	30	30	30	30
56	45	45	45	NA
60	30	30	30	30
62	30	30	30	30
72	20	20	20	20
81	30	30	30	30
83	50	45	45	40
88	50	50	50	50
101	25	25	30	30
106	20	NA	30	30
108	20	NA	30	30
109	30	NA	30	30
110	30	NA	30	NA
114	20	NA	30	NA
441	35	35	35	30

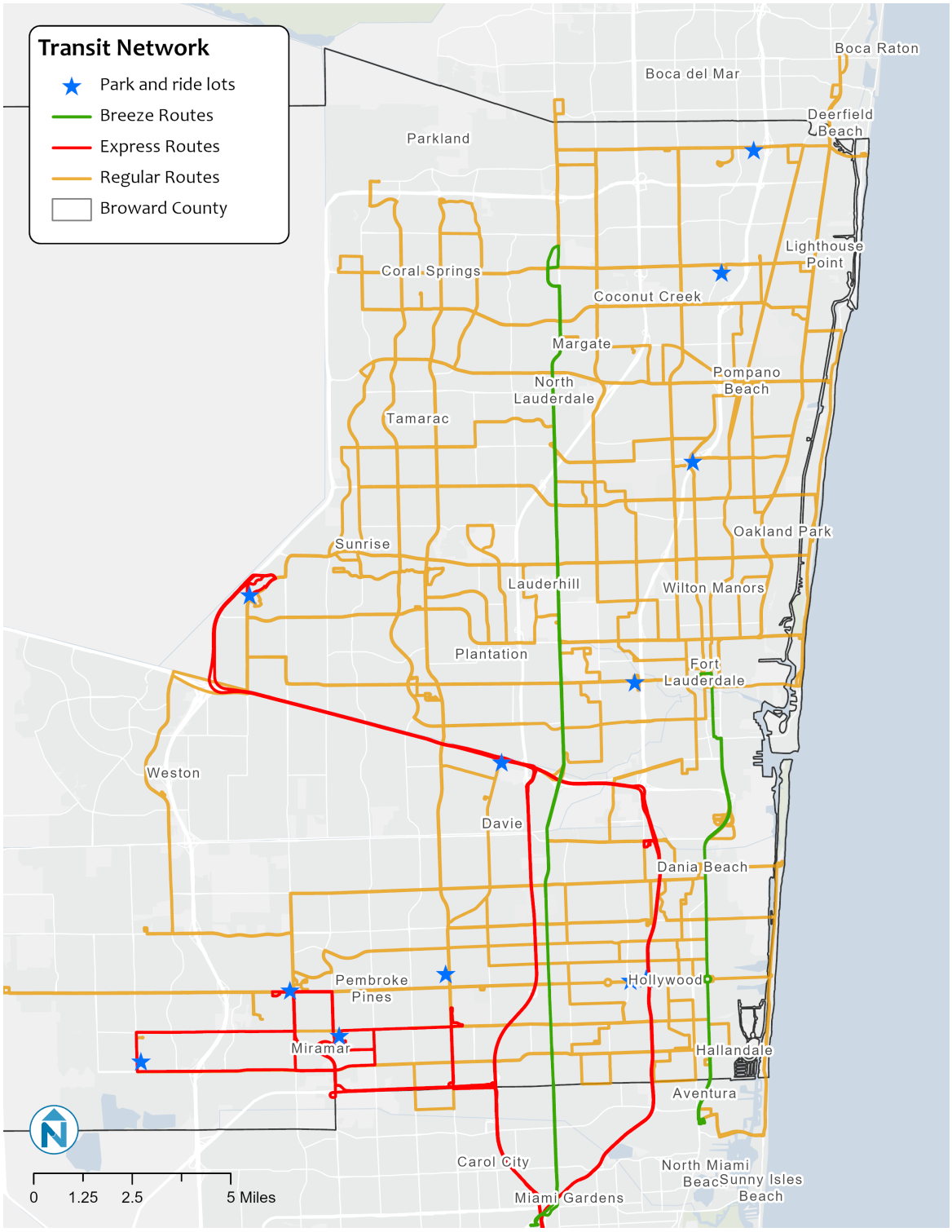
Table 5. Weekend Service Frequency (in Minutes)

Route	Saturday Frequency		Sunday Frequency	
	Daytime	Evening	Daytime	Evening
1	25	25	30	30
2	45	30	48	50
4	50	50	50	50
5	50	50	60	60
6	60	60	55	55
7	30	25	25	35
8	42	42	42	42
9	50	50	60	60
10	30	30	45	45
11	45	45	45	45
12	45	45	45	45
14	40	40	50	50
15	NA	NA	NA	NA
16	45	45	45	45
18	25	25	30	30
19	20	30	20	30
20	50	50	50	50
22	30	35	30	35

Route	Saturday Frequency		Sunday Frequency	
	Daytime	Evening	Daytime	Evening
23	NA	NA	NA	NA
28	30	30	40	40
30	30	45	45	NA
31	30	50	40	45
34	40	60	40	NA
36	30	30	30	30
40	30	40	40	40
42	45	45	60	60
48	35	35	NA	NA
50	40	40	50	50
55	30	30	35	35
60	40	40	60	60
62	30	30	30	30
72	20	20	20	20
81	35	35	50	50
83	60	60	60	60
88	48	50	48	48

Color	Headway (H) Range
	< = 20
	20 < H<=30
	30 < H< = 60
	60 < H
	Not Applicable

Figure 21: Fixed Route Service



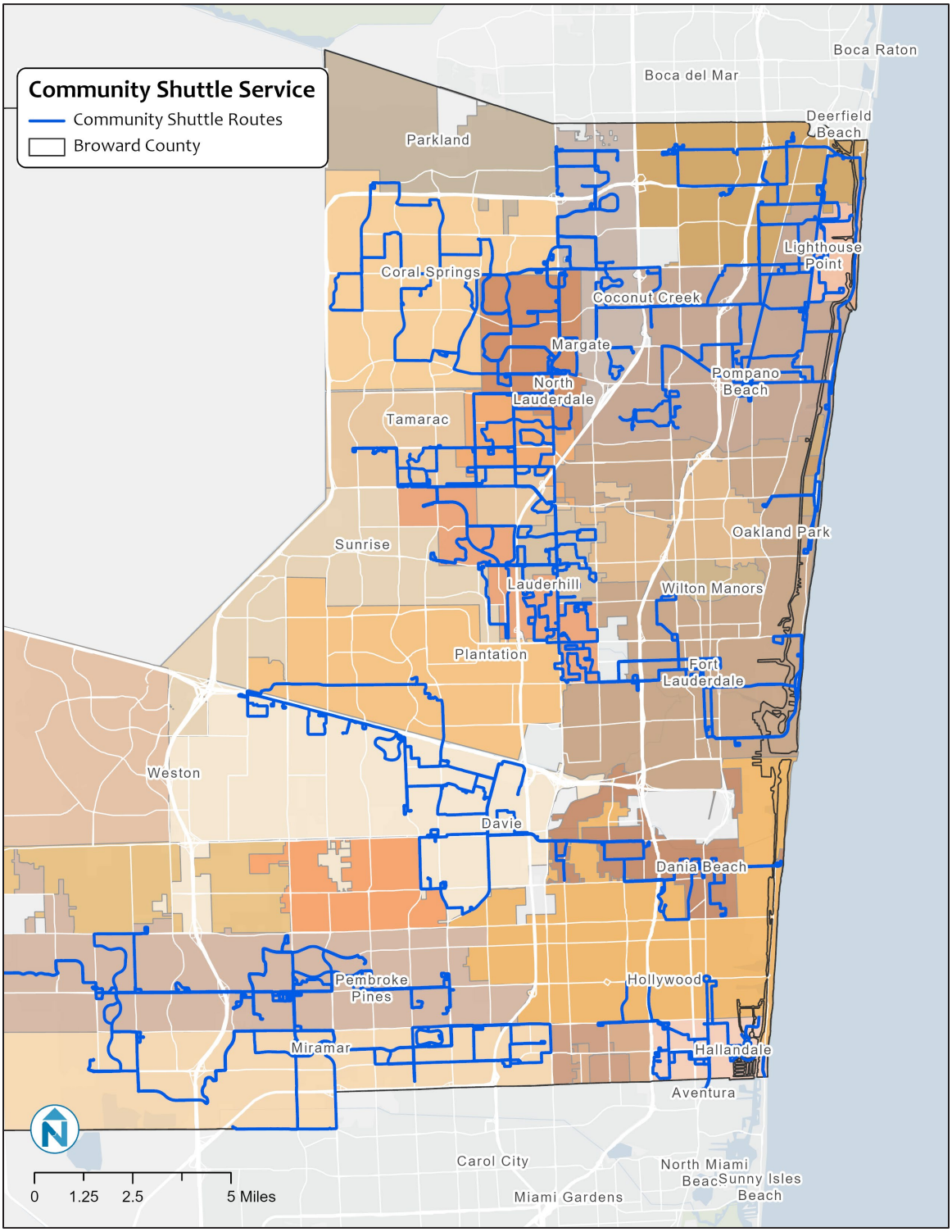
Community Shuttle Service

The 19 municipalities that have partnered with BCT to provide community shuttle service include: Coconut Creek, Coral Springs, Dania Beach, Davie, Deerfield Beach, Fort Lauderdale, Hallandale Beach, Hillsboro Beach, Lauderdale-By-The-Sea, Lauderdale Lakes, Lauderhill, Lighthouse Point, Margate, Miramar, Pembroke Pines, Pompano Beach, Tamarac, and West Park. **Figure 22** depicts community shuttle service routes in Broward County. The service is funded by the Transportation Surtax.

The municipalities either directly operate or contract through a vendor to operate fixed route shuttle service with designated bus stops in their respective communities. The primary intent of shuttle service is first and last mile connectivity, extending to areas where full-sized buses are unable to serve and to complement the existing fixed route transit network of Broward County.

In total, as of September 2023, there are 65 community shuttles serving 57 routes in the county. Service is provided by propane-fueled buses that are equipped with wheelchair securements and bicycle racks. These vehicles are purchased by BCT and leased to municipalities for $10.00 per bus on a yearly basis.

Figure 22. Community Shuttle Routes



Paratransit Service

Paratransit service is a shared ride on-demand service that is provided through a dedicated fleet of 352 propane-fueled vehicles for persons with disabilities that prevent them from using the fixed-route system. The fare is $3.50 per trip. The service hours of TOPS! are the same as the fixed route service. Customers can book their trips in advance online (24/7) or via telephone (8 AM – 5 PM).

Customer Amenities

There are 4,685 designated bus stops in Broward County. BCT provides customer amenities like benches, shelters, and trash cans at the stops. However, not all the stops have these customer amenities. **Figure 23** presents the percentage of distribution of the stops that have each of these amenities. The numbers compiled for shelters and benches in the figure, are based on BCT GIS data as of August 2023.

- 17% of the bus stops have shelters and more than 35% of the stops that do not have shelters have a bench. Just less than half of the stops have neither a bench nor shelter.
- 37% of the bus stops have trash cans and 63% of the stops don't.

Figure 23. Percentage Distribution of Stops with and without Customer Amenities

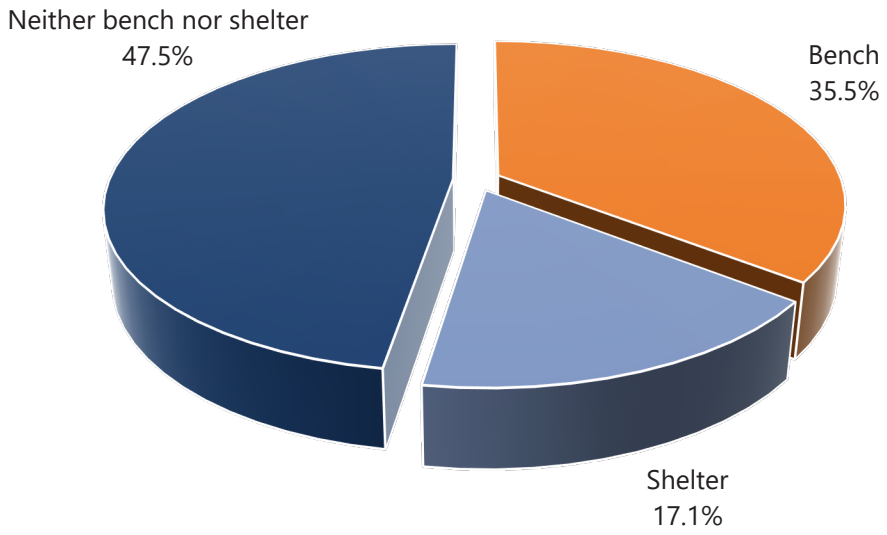
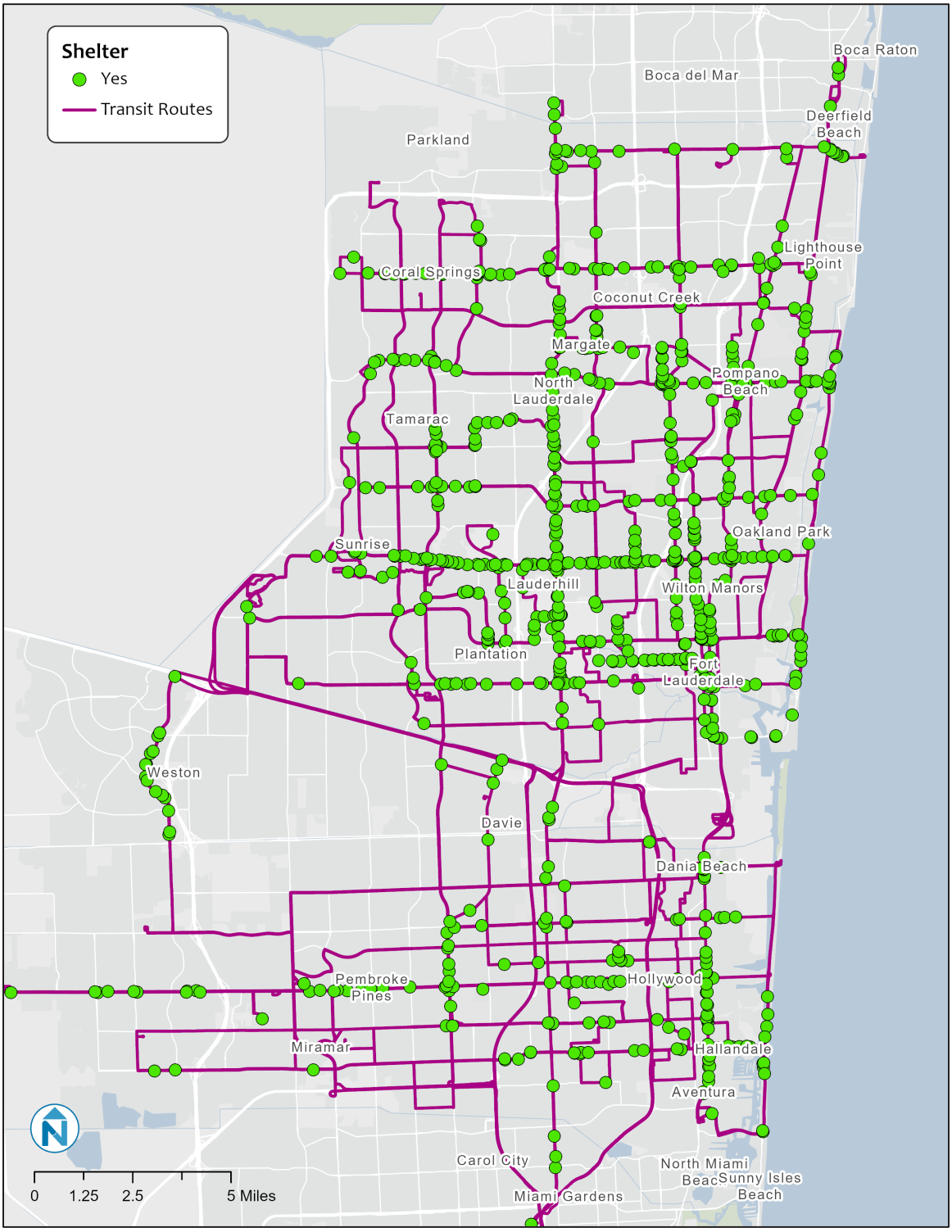


Figure 24 presents the spatial distribution of the stops that have shelters. While there are many corridors with numerous shelters in the core areas of Fort Lauderdale and Lauderhill, there are fewer shelters on routes on the west and southern sides of the county. These amenities will be compared with observed stop ridership data once available. Shelter placement is generally driven by ridership, geographic constrains and funding.

Figure 24. BCT Stops with Shelters



Demand Trends and Service Performance

Demand trends are useful to assess the usage pattern of a service and variation over time. Recent trend data mostly show the effects of the COVID-19 pandemic and how well each service has recovered. Monthly demand data for all the services (local, Breeze, express, community shuttles and paratransit) is assembled in this section to capture the snapshot of seasonal and monthly variations over the span of four years (2019 to 2023).

Figure 25 presents the historic trend of the ridership on the regular fixed route service. The greater monthly demand for the service is seen in the months of the year 2019. The sudden drop in the monthly demand in March and April 2020 was a result of the COVID-19 pandemic. Though there has been a rebound in the monthly demand, ridership has not completely recovered to pre-pandemic levels. Further, it is expected that the rate of rebound will vary across the routes establishing the need for a route-by-route analysis which will be presented in the subsequent tech memos.

Figure 25. Historic Ridership Trend of Regular Fixed Route Service

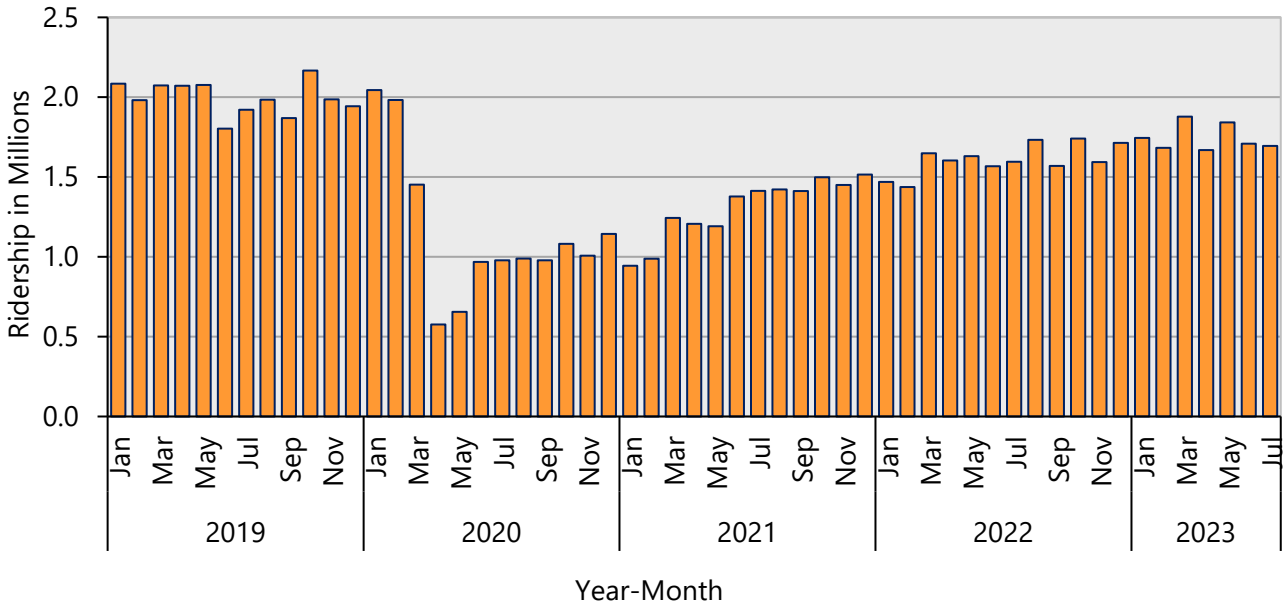


Figure 26 and **Figure 27** presents the historic ridership trend of the breeze and express fixed route service, respectively. The ridership patterns are consistent with the regular fixed route service, however though there has been a rebound in the monthly demand after the pandemic, the ridership is not at par with the pre-pandemic levels. The Breeze and express fixed route has not rebounded at the same level as the regular fixed route. It should be noted that the breeze service was terminated from the month of March through August 2020 because of the COVID-19 pandemic.

Figure 26. Historic Ridership Trend of the Breeze Fixed Route Service

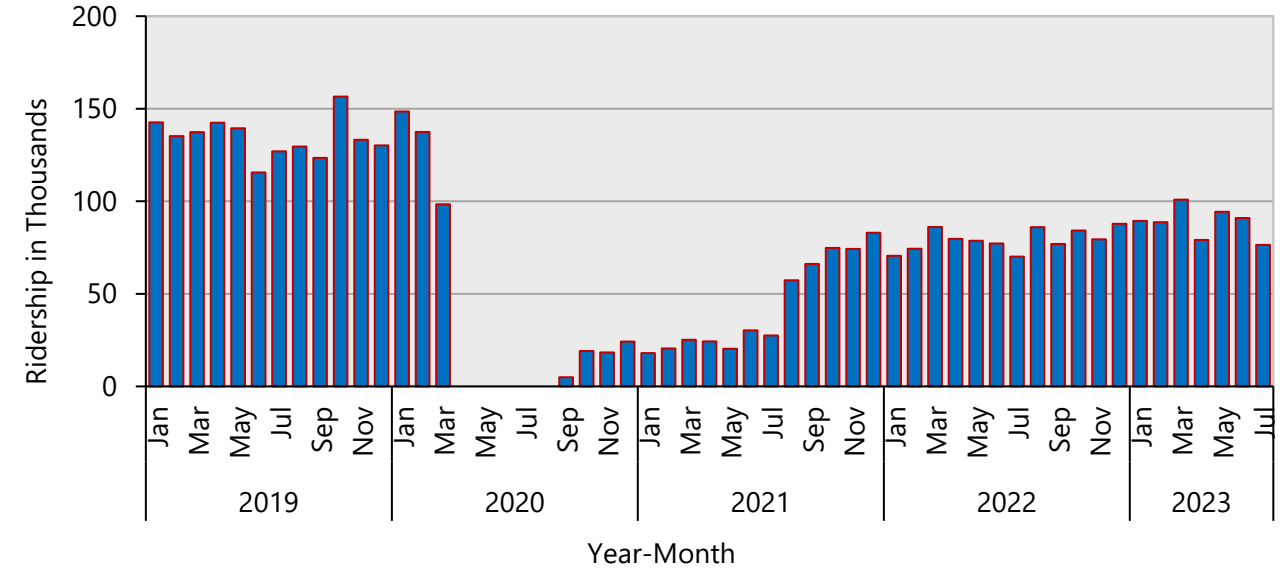
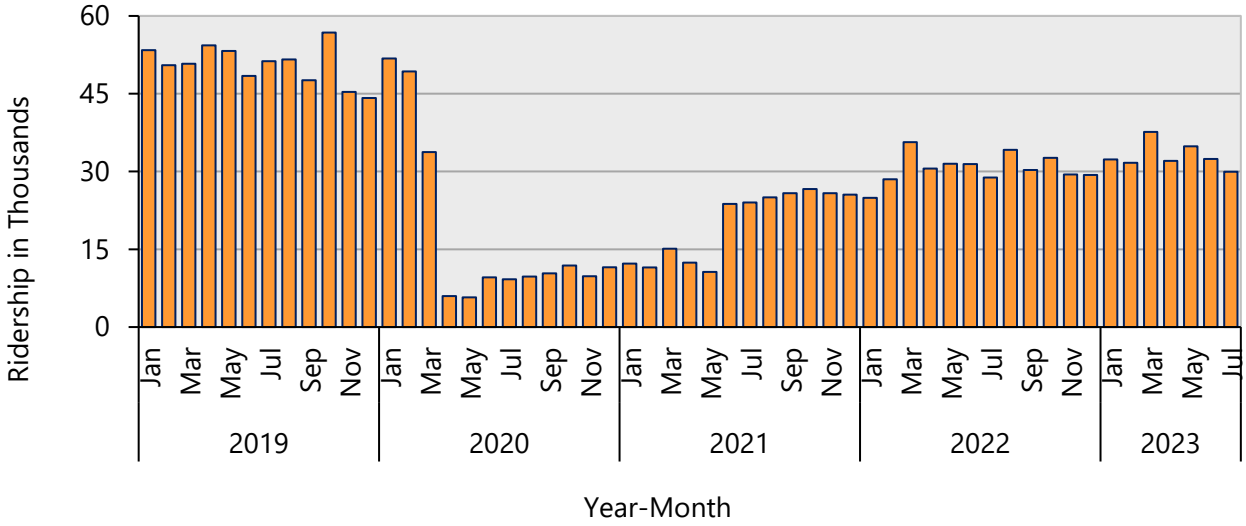


Figure 27. Historic Ridership Trend of the Express Fixed Route Service



The 2019-2023 historic ridership trend of the community shuttle and paratransit service is shown in **Figure 28** and **Figure 29** respectively. The monthly ridership on the community shuttle service is still much lower than what it was before the pandemic. However, the paratransit service seems to have rebounded to pre-pandemic levels.

Figure 28. Historic Ridership Trend of the Community Shuttle Service

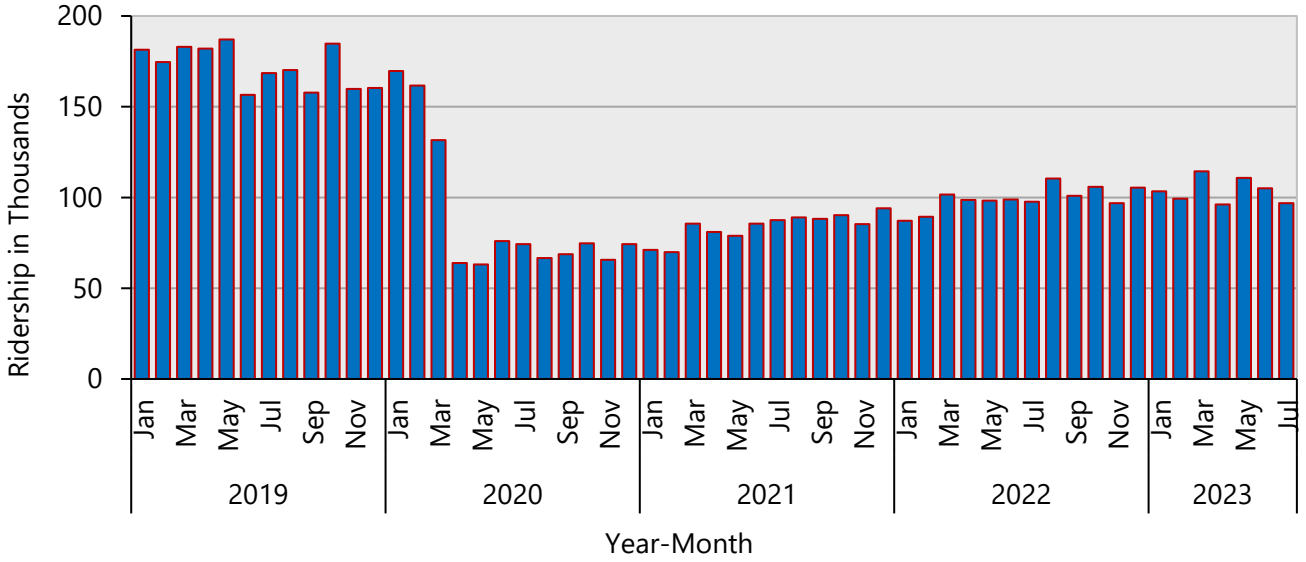


Figure 29. Historic Ridership Trend of the Paratransit Service

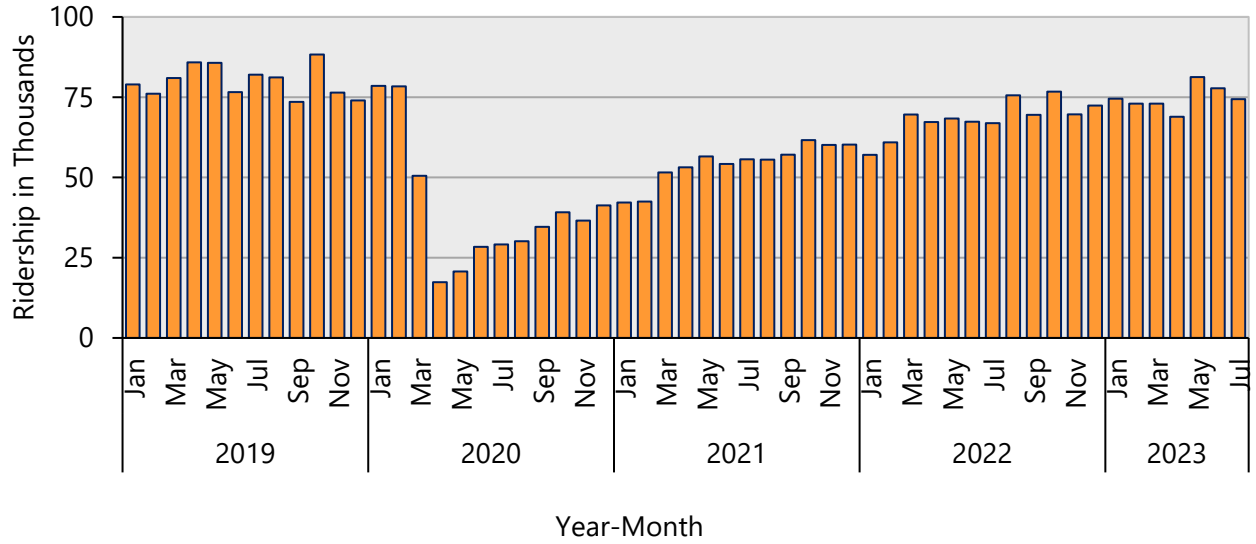
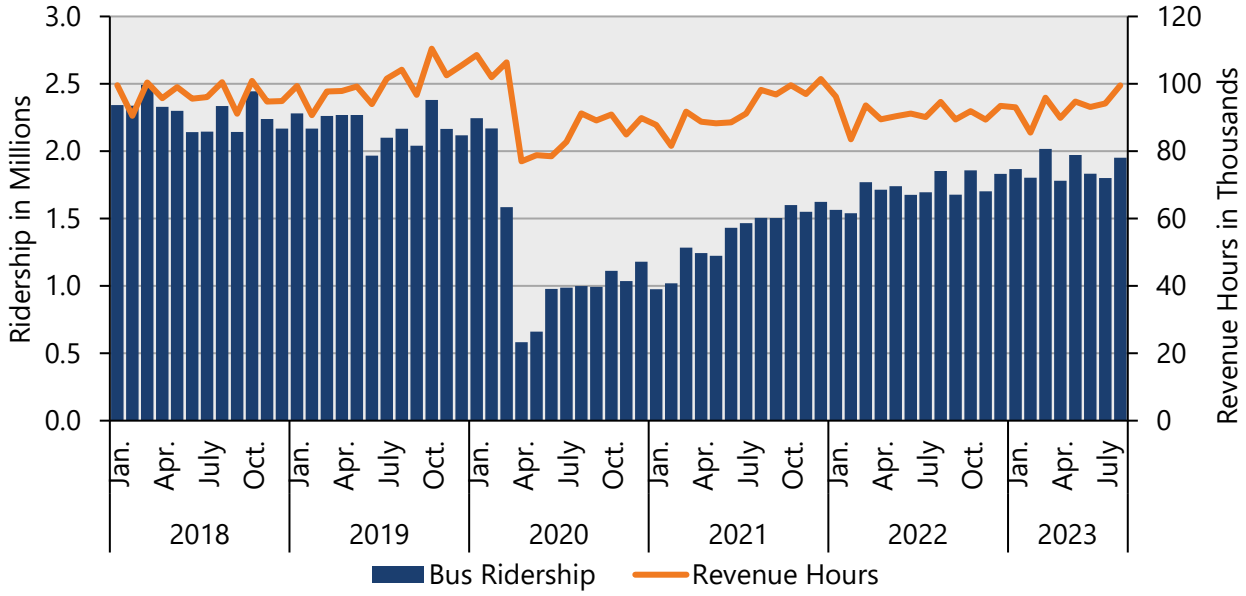


Figure 30 and **Figure 31** represent system-wide mode ridership and revenue hours for both bus and paratransit service. With the onset of the COVID-19 pandemic in 2020, service was reduced by more than 20% when measured with revenue hours. The drop in ridership was far more dramatic with losses reaching 75%. Over the past three years since the initial stages of the pandemic, the number of revenue hours has recovered and is still not at pre-COVID levels. Ridership has rebounded slowly as well and continues to trend higher.

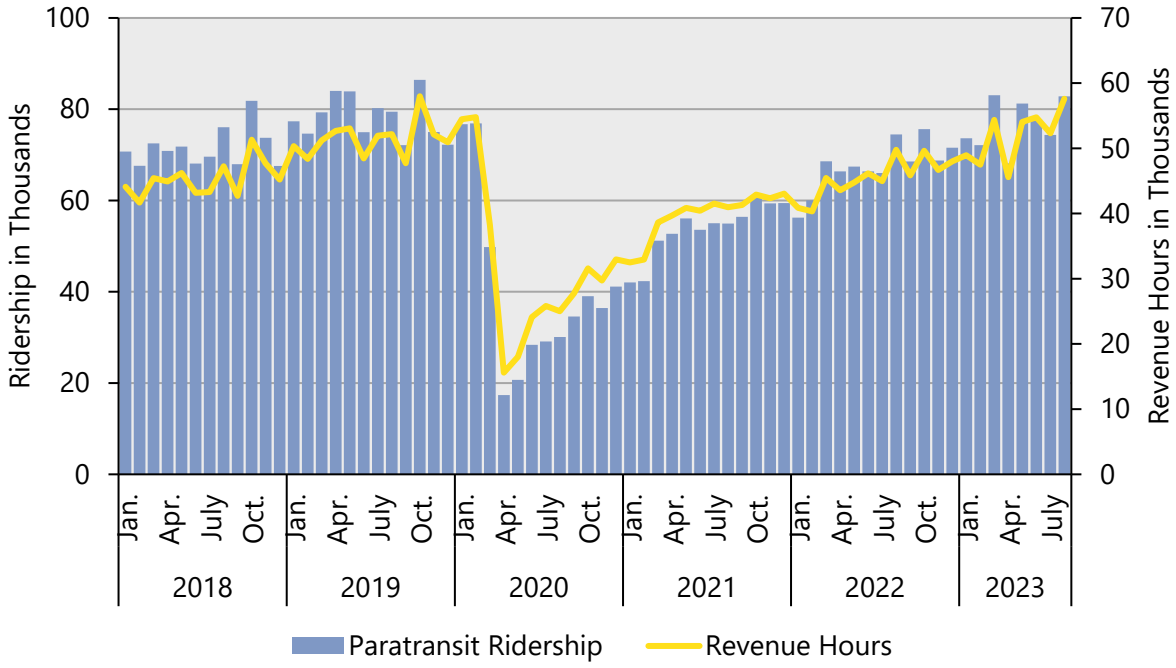
For paratransit there is a better match of service quantity and demand, as revenue hours and ridership followed a more similar pattern. Ridership did fall more than revenue hours, as precautions during COVID-19, that reduced ridesharing to limit disease spread, resulted in somewhat lower customer per hours during 2020 and 2021.

Figure 30. Monthly Comparison of Ridership and Revenue Miles - Bus



Source: National Transit Database Monthly Ridership

Figure 31. Monthly Comparison of Ridership and Revenue Hours- Paratransit



Source: National Transit Database Monthly Ridership

4.2 PLANNED TRANSIT SERVICE

Why is this important?

Along with the existing conditions, it is equally important to understand the future plans of the agency regarding planned services in order to make recommendations that are consistent and complementary to existing plans. In the case of BCT, COA must complement the recently approved PREMO Plan.

PREMO

Premium Mobility Plan or PREMO is a plan developed by BCT to support the future mobility needs of the county through premium transit projects on high-capacity corridors. *PREMO defines a vision for a world-class premium transit network in Broward County. To achieve this vision, PREMO strategically identifies a program of projects that sequences the implementation of premium transit services — connecting local Broward County Transit (BCT) routes to regional services.*[2] PREMO goals include:

1. Improve Mobility for All
2. Implement Equitable Transit Solutions
3. Improve Safety and Security, and Ensure Environmental Stewardship
4. Enhance Economic Development and Ensure Financial Sustainability, and
5. Integrate and Serve Communities

The PREMO Plan identifies phases of delivering the premium transit projects. These phases include conceptual design and environment, final design, construction, and operations.

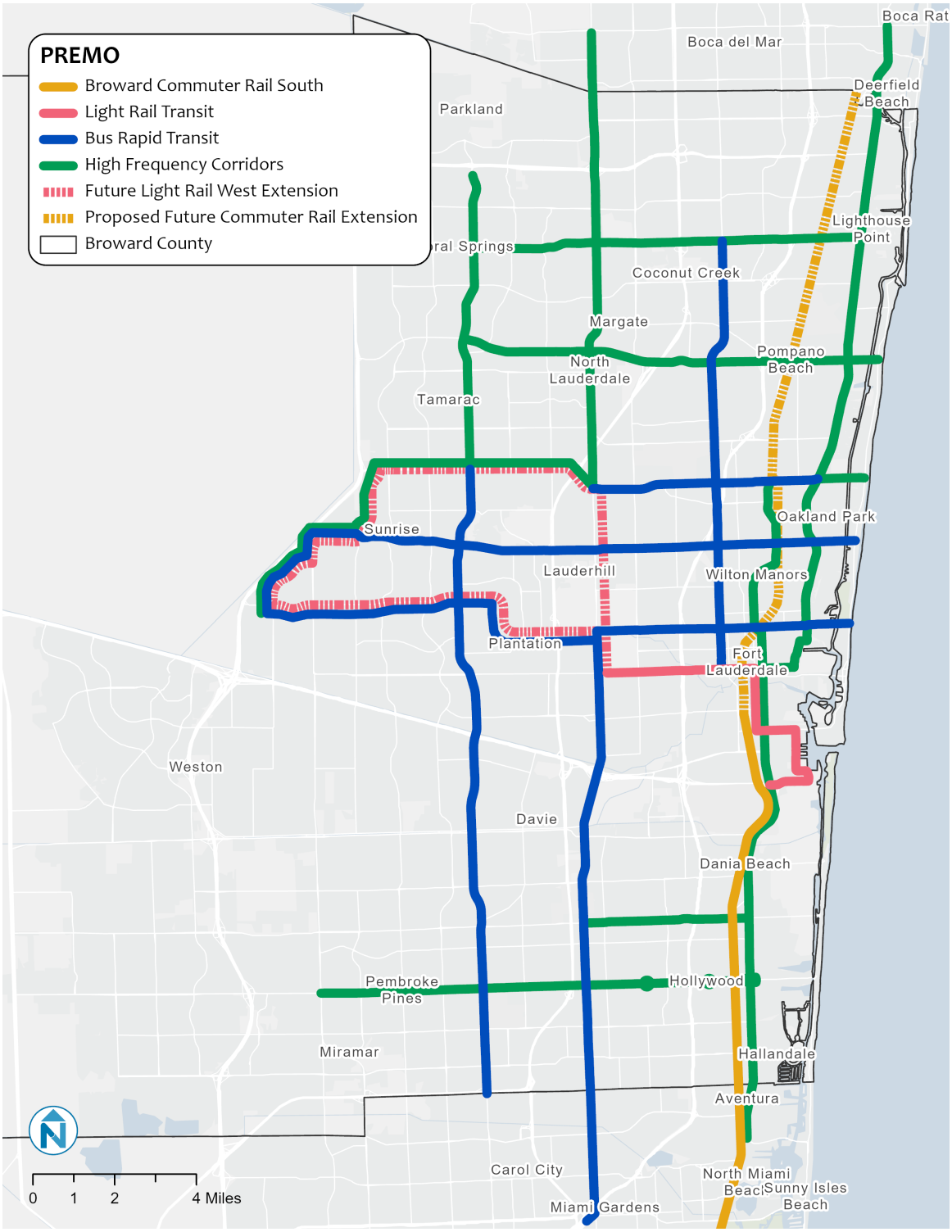
The PREMO Plan will refine service delivery, mobility, and connectivity throughout Broward County. It contains over 200 miles of premium service that includes:

- Commuter Rail
- Light Rail Transit (LRT)
- Bus Rapid Transit (BRT)
- High Frequency Bus (HFB)

Error! Reference source not found.32 shows the PREMO network.

[2] Broward County Connects, Final Summary Report, August 2023

Figure 32. Premium Mobility Plan (PREMO) Network



Source: Premium Mobility Plan Final Summary Report

Focus Communities

Chapter 3 identifies seventeen focus communities based on the transit propensity index as having a high propensity for transit usage. Thus, it is important to assess the availability of existing and planned transit services to these communities. **Table 6** identifies transit services (existing and planned PREMO service) that are available to these communities.

What does this tell us?

- All the communities have multiple existing transit routes available to them.
- Except for Century Village, all communities have planned PREMO service.

Table 6. Existing and Planned Service in Identified Focus Communities

Focus Communities	Existing Transit Network	PREMO Network
Central Commercial Boulevard Corridor	11, 14, 19, 31, 55, 62, 441, Lauderdale Lakes North/South, Tamarac Red, Tamarac Red Evening, North Lauderdale Route 2/East Loop	BRT, Future LRT West Extension Option/BRT, HFB
Central Deerfield Beach	48, 50, Deerfield Beach Express I, Deerfield Beach Express II	HFB
Central Hallandale Beach	1, 4, 5, 6, 15, 28, 101, 110, 114, Hallandale Route 1, Hallandale Route 2, Hallandale Route 3, Hallandale Route 4	HFB, Broward Commuter Rail South
Central Hollywood	1, 4, 6, 7, 8, 9, 101, 110, 114, Hallandale Route 1, Hallandale Route 3	HFB, Broward Commuter Rail South
Central Lauderhill	18, 19, 22, 36, 72, 81, 441, Lauderhill Route 1, Lauderhill Route 2, Lauderhill Route 3, Lauderhill Route 4, Lauderhill Route 5, Lauderdale Lakes East/West, Lauderdale Lakes North/South, Lauderhill Route 6, Lauderhill Route 7	BRT, Future LRT West Extension Option/BRT
Central Pompano Beach	20, 42, 50, 60, 83, Pompano Beach Red, Pompano Beach Orange, Pompano Beach Blue, Pompano Beach Green	HFB
Century Village	14, 48, Deerfield Beach Express I	None

Focus Communities	Existing Transit Network	PREMO Network
Lauderdale Lakes- North Lauderhill Creek	19, 72, 81, 441, Lauderhill Route 1, Lauderhill Route 2, Lauderhill Route 3, Lauderhill Route 4, Lauderhill Route 5, Lauderdale Lakes East/West, Lauderdale Lakes North/South	BRT, Future LRT West Extension Option/BRT
Margate-Coconut Creek	19, 31, 42, 60, 83, 441, Margate Route C, Margate Route D, Coconut Creek S, Margate Route A, Margate Route As	HFB
North Military Trail Corridor	34, 50, Pompano Beach Orange, Pompano Beach Blue, Deerfield Beach Express I, Deerfield Beach Express II	HFB
Pembroke Pines- University Drive	2, 5, 7, 108, Pembroke Pines Blue East	BRT, HFB
Pembroke Pines- Flamingo Road	5, 7, 109, Miramar Red, Pembroke Pines Gold East, Pembroke Pines Gold West, Pembroke Pines Gold East, Pembroke Pines Blue West	HFB
Rosevelt Gardens- Washington Park	9, 11, 22, 31, 36, 72, 81, Lauderdale Lakes East/West, Lauderdale Lakes North/South, Neighborhood Link, Lauderhill Route 6, Lauderhill Route 7, NW Community Link	LRT, BRT
South US 441 Corridor	5, 15, 18, 28, 441, Miramar Yellow, Miramar Green	BRT
Sunrise Lakes Corridor	2, 56, 88	BRT
West Commercial Boulevard Corridor	55, 58	Future LRT West Extension Option/HFB

Focus Communities	Existing Transit Network	PREMO Network
West Fort Lauderdale	1, 6, 9, 10, 11, 14, 20, 22, 30, 31, 36, 50, 60, 81, 101, Downtown Link, Neighborhood Link, Las Olas Link, NW Community Link	LRT, BRT, HFB

5 FUTURE LAND USE

Why is this important?

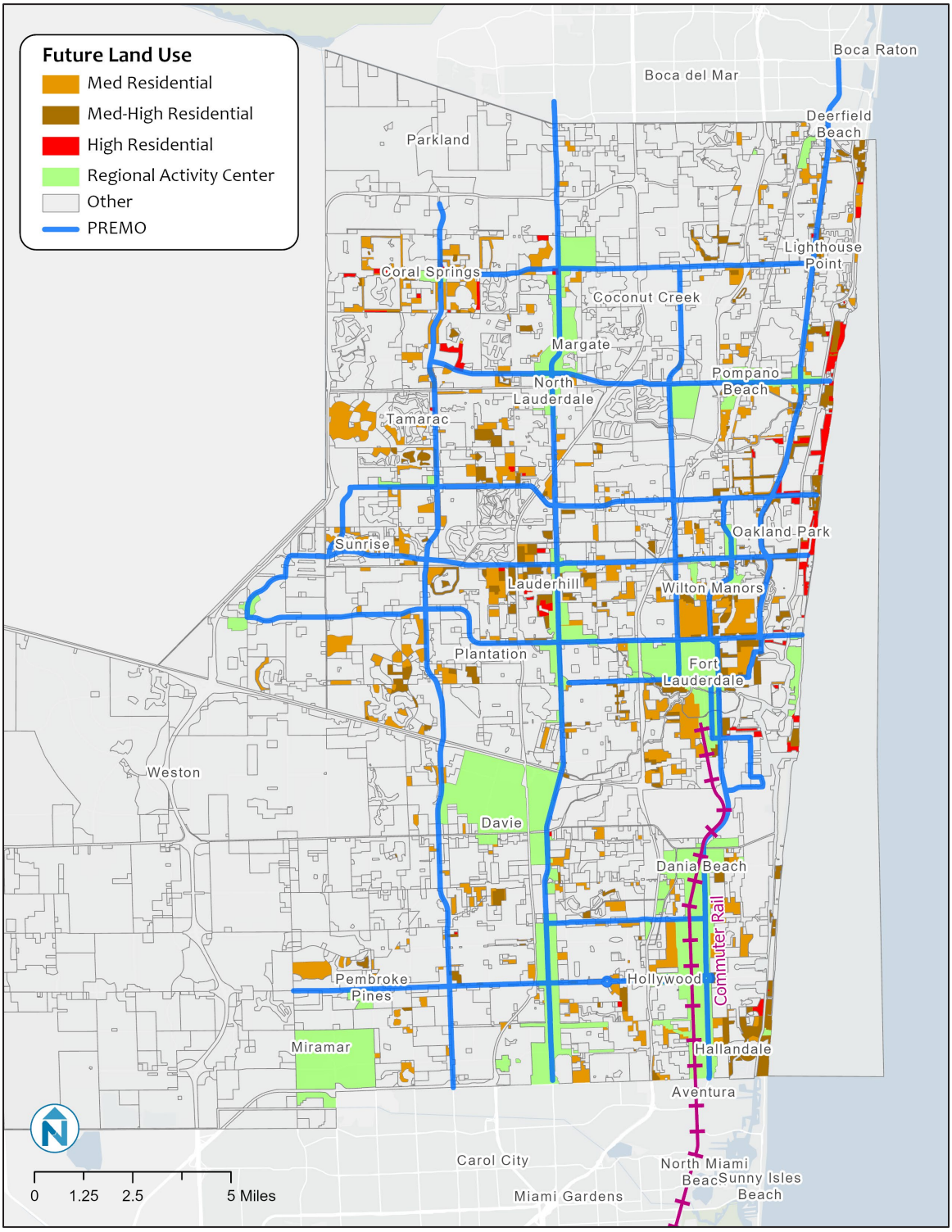
Transit and land use are intricately connected, shaping the functionality of urban areas. The presence of good transit systems promotes higher density developments around them, while higher density developments in turn support transit by providing a large customer base. Examining current and future land use is therefore an important consideration in creating an efficient transit network.

While the intensity of land uses (what's most critical to transit planning) is clear from figures showing population and employment density, **Figure 33** presents the future land uses as part of the Broward County Comprehensive Plan. To illustrate the most important elements, the graphic shows some land use types that are most likely to create transit trips and demand transit access. The plan identifies residential areas by intensity, and only those with medium or higher are included. Also included are Regional Activity Centers (RAC) which are likely to be the location of many jobs and destinations. The PREMO Network is also included for reference.

What does this tell us?

- Most of the higher-density development is served with the PREMO Network. There are areas of high-density residential along the Atlantic coast in Pompano Beach that are a longer distance to the nearest PREMO service along Atlantic Boulevard. Coastal higher-density clusters in Hillsboro Beach and Hallandale Beach that must go to U.S. 1 for the nearest PREMO service.
- Except for the RAC in Miramar, all the others in Davie, Fort Lauderdale, Dania Beach, Margate, North Lauderdale, and Hallandale are well connected with the PREMO Network.

Figure 33. Future Land Use



Source: Broward County Comprehensive Plan

6 REVIEW OF OTHER PLANNING DOCUMENTS

This section presents an overview and key findings from other local and regional planning documents. This review provides a summary of other efforts by Broward County and the adjoining counties and authorities as they are relevant to the future development of BCT services.

BCT Transit Development Plan Major Update 2024-2033

The Transit Development Plan (TDP), developed in 2023, evaluates the agency's existing transit market and identifies goals and objectives the agency should focus on for the planning period. The 10-year plan develops recommendations related to service, infrastructure, technology, and policies for all BCT modes.

The plan lists 5 goals with specific objectives to meet the transit needs of users[3]:

- Improve Safety and Security
- Improve Mobility for All and Implement Equitable Transit Solutions
- Strive to be an Employer of Choice
- Ensure Resiliency and Maintain a State of Good Repair
- Support Economic Development and Ensure Financial Stability

Key objectives of these goals are to reduce safety events and transit worker assaults, grow transit use and increase market share, attract and retain a diverse workforce, practice and promote environmental sustainability as a culture and ensure efficiency for services provided.

BCT Transit Development Plan (TDP) Annual Update and Progress Report 2023 – 2032

The TDP for Broward County, which was adopted in 2019, served as a guide for development for the next ten years. The 2023 annual update is the fourth annual progress report to the plan. In 2022, BCT was increased bus frequency, made route adjustments and introduced a new bus route. Some of the milestones the agency seeks to achieve in 2023 include:

- Expanding the community shuttle service to other parts of Fort Lauderdale, Lauderdale lakes, Lauderhill, and Hollywood.
- Continuing with the PREMO plan, by moving one BRT corridor forward through PDE and achieve 30% design.
- Piloting microtransit service in five identified communities.

[3] Broward County Transit, Transit Development Plan (FY 2024-2033)

Broward County Comprehensive Plan

The county's comprehensive plan was adopted in March 2019 and amended in 2022. The plan's transportation element documents a number of goals but most importantly makes a commitment to prioritize transit amenities along complete streets to facilitate intermodal transportation. The county will continue to coordinate with transportation partners, conduct market analyses to guide planning and facilitate convenient first and last mile connections to public transit through co-location of shared mobility options such as bicycles, car share, taxi and Transportation Network Companies (TNCs). Specifically, some of the more direct objectives include[4]:

- Requiring that new pedestrian, bicycle, and transit amenities and facilities are in accordance with the Americans with Disabilities Act of 1990 (ADA).
- Adding Intelligent Transportation Systems (ITS) for transit, including queue jumps and Transit Signal Priority (TSP) and dedicated or semi-exclusive lanes for transit, including Business Access/Transit lanes.
- Installing transit shelters, benches, solar-power lighting, trash receptacles and bicycle racks, when feasible, and other amenities (such as real-time bus information) at highly utilized bus stops to encourage additional ridership.

In addition to the public transportation goals, the plan emphasizes the promotion of bicycling and walking in the region. Opportunities to integrate bicycle and pedestrian projects with public transportation that have been identified in the plan include:

- Coordination of pedestrian street crossings with transit stop locations.
- Coordination of bicycle lanes and facilities with transit routes and facilities to support user option of segmented user trips (e.g., bicycle cars on trains, bicycle racks on buses)

Palm Tran Transit Development (TDP) Plan 2022–2031

The Palm Tran TDP, branded Accelerate 2031, provides a strategic guide for Palm Tran on public transit services. The plan includes an overview of the baseline conditions, public outreach summary, and presents goals and objectives the agency seeks to achieve. Palm Tran coordinates with BCT to allow cross-county transfers at Sandalfoot Square and Camino Real in Boca Raton and the Cove Shopping Center in Deerfield Beach. The fixed route service extends south into Broward County with Palm Tran 92 connecting to BCT 48 at the Cove Shopping Center in Deerfield Beach.

- One of the goals in the plan is to improve service options and levels to better serve existing rider needs. Palm Tran has about 20 of 32 (62.5%) of its routes having a 60-minute or longer frequency and route 92 is one of those. The goal is to reduce the percentage of routes that operate at 60 minutes or more frequency.
- The plan also indicates that Palm Tran will assess and continually improve their integration in a multimodal mobility system by integrating services with SFRTA, BCT, and other transit providers by reducing average scheduled transfer time by 25% for key routes. This will be done by introducing

[4] Broward County Comprehensive Plan, 2019

Paradise Pass, which is a convenient electronic fare payment system that will be interoperable with other regional providers.

South Florida Regional Transportation Authority (SFRTA) TDP 2019-2028

The SFRTA TDP serves as a planning, development, and operational guidance document for rail service in South Florida. Generally, the 10-year implementation plan includes capital projects such as rail yard improvements, purchase of rolling stock, preventive maintenance, and station improvement among others. Some key elements of the plan include:

- The South Florida roadway network will undergo significant changes with the expansion of managed lanes along I-95 to northern Broward County and Palm Beach County.
- Efforts are underway to create a regional fare integration policy, allowing customers to seamlessly use multiple transit services (Palm Tran, BCT, MDT, and Tri-Rail) with a single pass.
- Major projects that will impact Broward County are the Broward Commuter Rail South project which will connect Downtown Miami to Fort Lauderdale.

Commitment 2045 Metropolitan Transportation Plan

Commitment 2045 Metropolitan Transportation Plan (MTP) is developed as a result of a two-year collaboration of the Broward Metropolitan Planning Organization (MPO) and its partners. The MTP presents a multimodal transportation system from 2020 through 2045. In order to enhance economic strength and quality of life in Broward County, the MPO emphasizes the need for reliable transit, bicycle, pedestrian, freight, and roadway projects through this plan. The document also identifies financial sources that can be utilized for funding such projects. The MTP has three key goals: move people and goods, create jobs, and strengthen communities.

In conjunction with the MTP effort, an evaluation of the existing transit network of Broward County was done to identify the future needs. The transit evaluation process was a four-step approach that included the following four steps.

- Define/assess transit market segments
- Identify initial transit corridor network
- Identify high-opportunity transit corridor network
- Define transit vision and priorities

The proposed transit service as per the MTP includes beach trolley, express bus, BCT rapid bus, fixed guideway, commuter rail and SMART plan.

7 APPENDICES

APPENDIX A

Description of Demographic Groups in Transit Propensity Index

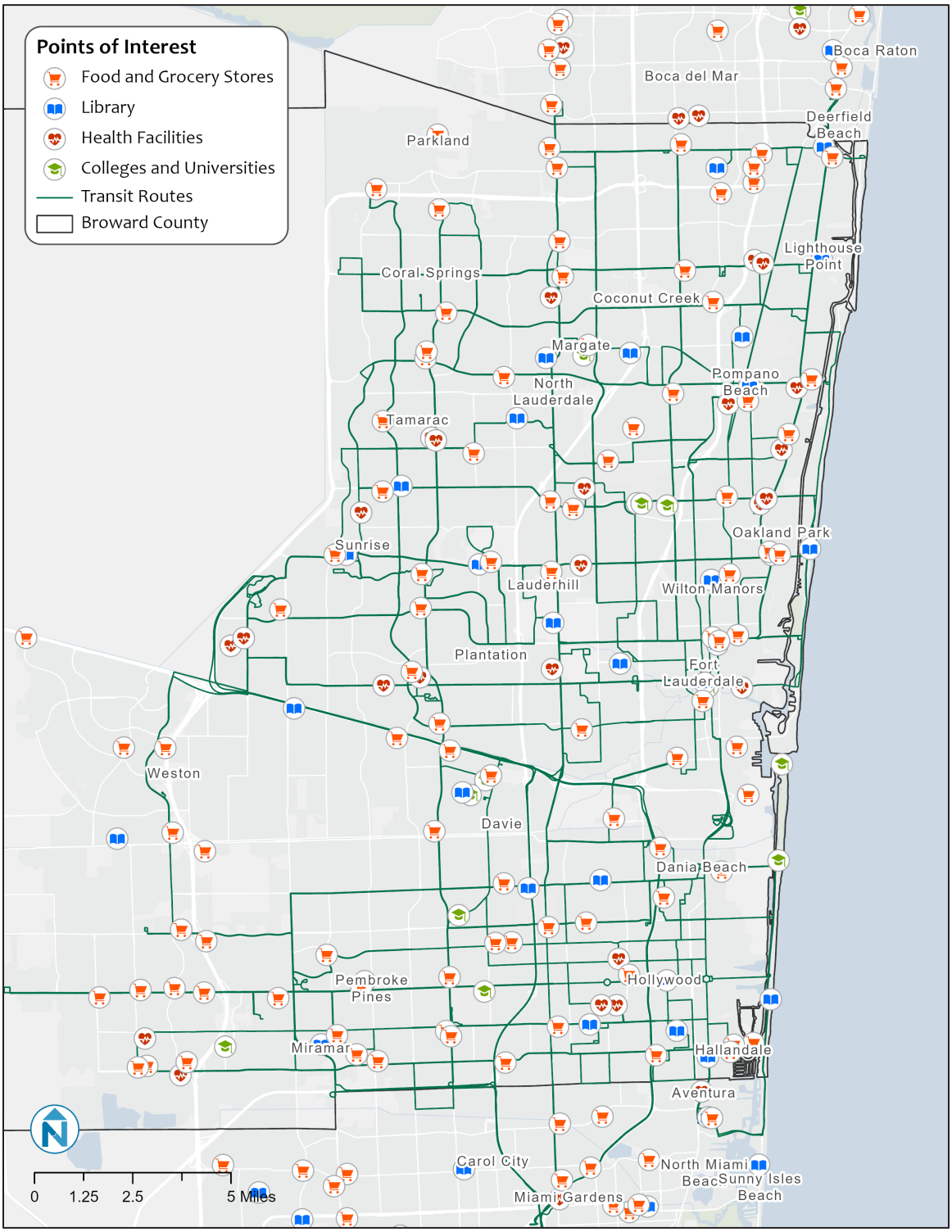
Demographic group	Description
Minorities	Those Who Do Not Identify as Only White.
Poverty	Those Who Fall Below 150% Of the Federal Poverty Line.
Minorities And Low Income	This Combined Index Compares People Who Identify as Minorities and Compares That with Their Income Levels.
Zero Vehicle Households	Households Without Access to a Working Vehicle.
Transit Propensity Index	This Is an Overall Composite Index That Will Measure the Overall Likelihood That Certain Demographic Groups Will Use Transit.

Transit Propensity by Demographic Group

Demographic Group	Transit Propensity
RACE AND ETHNICITY	
White Alone (Not Hispanic or Latino)	0.42
Black or African American (Not Hispanic or Latino)	1.88
Asian (Not Hispanic or Latino)	0.76
Other Race (Not Hispanic or Latino)	1.02
Hispanic or Latino	0.80
HOUSEHOLD VEHICLE OWNERSHIP	
No Car	8.48
One Car	1.46
Two or More Cars	0.53
COUNTRY OF ORIGIN	
Native	0.83
Foreign	1.23
HOUSEHOLD INCOME	
Less than $25,000	1.96
$25,000 - $50,000	0.83
More than $50,000	0.37
TENURE	
Owner occupied	0.65
Renter occupied	1.52

APPENDIX B

Points of Interest



APPENDIX C

Demographics Within Catchment Area Of Fixed Route System

Routes	Population	Jobs	% of Minority Population	% of Zero Vehicle HH	% of People in Poverty
01 US 1 Local	34,713	55,025	56%	11%	27%
02 University Dr Local	75,006	49,316	76%	5%	19%
04 South SR A1A Local	29,365	13,250	48%	10%	28%
05 Pembroke Rd Local	50,154	15,078	85%	8%	23%
6	55,065	36,210	71%	10%	29%
07 Hollywood Blv / Pines Blv Local	53,889	27,209	76%	11%	23%
08 Taft Street Local	43,287	15,980	69%	7%	21%
09 Broward Terminal - Young Circle via BCC	64,487	32,552	73%	9%	25%
10 Federal Hwy Local	50,374	53,277	36%	6%	17%
11 US 441 / Prospect R - Brow Term - US 1 / Copans R	61,205	55,367	52%	10%	25%
12 Westfield Mall - A1A via Oakwood Plaza	44,544	27,866	68%	8%	21%
14	27,902	28,899	71%	11%	28%
15 Tri-Rail - County Line Rd	50,319	19,428	71%	7%	28%
16	25,631	14,823	62%	6%	22%
18	38,431	15,024	88%	9%	32%
19 N State Rd 7 Local	46,896	15,333	79%	9%	31%
20	39,148	31,728	51%	7%	23%
22 Broward Blvd Local	35,262	31,849	72%	7%	25%
23 Pembroke Lakes Mall - Sawgrass Mills Mall	21,909	21,383	71%	3%	12%
28	61,662	26,754	77%	8%	22%
30 Davie Blv Local	24,414	33,539	58%	6%	18%
31 Broward Terminal - Hillsboro Blv	48,918	24,275	73%	11%	26%
34 Sample Rd Local	35,534	14,897	64%	6%	22%
36	41,885	21,198	77%	11%	29%
40	36,611	39,899	70%	11%	34%
42 Atlantic Blv Local	33,057	10,107	63%	9%	23%
48 Hillsboro Blv Local	18,343	14,141	45%	9%	22%
50	49,662	34,654	65%	9%	32%
55 Commercial Blv Local	44,569	34,463	61%	8%	21%

Routes	Population	Jobs	% of Minority Population	% of Zero Vehicle HH	% of People in Poverty
56 Welleby Plz-109 A-Sunrise Lks-Jacaranda Plz	22,429	12,780	75%	9%	26%
60	43,152	31,837	68%	11%	33%
62 McNab Rd Local	77,733	36,389	67%	7%	22%
72 Oakland Park Blvd Local	51,576	40,930	69%	9%	25%
81 Broward Terminal - West Terminal	78,121	29,154	89%	12%	36%
83 Copans Rd / Royal Plam Blv Local	36,360	14,364	67%	7%	19%
88 Pine Island Rd Local	48,381	12,919	69%	6%	20%
101 US 1 Breeze	17,705	38,690	53%	11%	25%
106 95 Express Miramar	12,627	12,774	94%	22%	45%
108 95 Express Pembroke Pines	14,180	12,458	95%	20%	42%
109 95 Express Pembroke Pines / Miramar	41,234	92,870	73%	17%	18%
110 595 Express BB&T Center to Miami / Brickell	37,555	90,140	72%	17%	18%
114 595 Express BB&T Center to Miami Civic Center	11,448	13,828	92%	22%	50%
441-Breeze	40,797	14,614	86%	10%	33%

APPENDIX D

Demographics Within Catchment Area Of Community Shuttles

Routes	Population	Jobs	% of People in Poverty	% of Minority Population	% of Zero Vehicle HH
Coconut Creek N	33,519	13,810	15%	50%	5%
Coconut Creek S	33,547	9,332	18%	50%	7%
Coral Springs Blue	37,235	8,055	24%	68%	8%
Coral Springs Green	32,570	10,312	15%	62%	5%
Dania Beach Route 1 East	16,468	5,791	31%	67%	9%
Dania Beach West	16,417	6,779	33%	65%	7%
Davie Blue	34,628	15,830	19%	55%	3%
Davie Green	41,236	16,776	25%	67%	6%
Deerfield Beach 1	22,034	9,510	28%	54%	15%
Deerfield Beach 2	27,304	9,243	30%	71%	10%

FTL-TMA Beach Link	6,652	9,586	10%	18%	6%
FTL-TMA Downtown Link	11,964	19,536	21%	44%	7%
FTL-TMA Las Olas Link	10,493	16,585	13%	36%	7%
FTL-TMA Neighborhood Link	18,463	8,775	41%	83%	9%
Hallandale Beach 1	28,496	9,381	31%	50%	13%
Hallandale Beach 2	23,640	11,593	29%	48%	12%
Hallandale Beach 3	26,531	10,613	33%	78%	10%
Hallandale Beach 4	21,719	7,445	33%	73%	11%
Hillsboro Beach	24,494	9,613	16%	30%	6%
Hollywood South Downtown	15,257	6,782	22%	42%	10%
Lauderdale Lakes E/W	30,728	5,792	34%	91%	14%
Lauderdale Lakes N/S	27,903	4,899	33%	96%	13%
Lauderhill Route 1	27,173	3,547	38%	94%	16%
Lauderhill Route 2	28,559	1,794	39%	95%	13%
Lauderhill Route 3	29,065	5,249	29%	87%	14%
Lauderhill Route 4	18,087	3,616	22%	83%	13%

Routes	Population	Jobs	% of People in Poverty	% of Minority Population	% of Zero Vehicle HH
Lauderhill Route 5	28,460	3,556	38%	94%	16%
Lauderhill Route 6	12,552	2,572	41%	98%	11%
Lauderhill Route 7	12,284	4,479	41%	98%	8%
LBTS Pelican Hopper	15,840	11,016	13%	20%	10%
Lighthouse Point	17,392	5,153	13%	34%	5%
Margate Route A	29,503	7,970	18%	65%	5%
Margate Route C	35,848	4,379	19%	66%	7%
Margate Route D	25,846	9,974	26%	74%	8%
Miramar Green	39,606	6,770	18%	91%	4%
Miramar Orange	48,766	10,611	13%	86%	5%
Miramar Red	40,217	6,304	17%	90%	6%
Miramar Yellow	51,225	8,184	19%	90%	4%
North Lauderdale Route 1/West Loop	31,831	6,918	26%	85%	6%

North Lauderdale Route 2/East Loop	29,424	3,495	30%	89%	5%
NW Community Link	27,154	7,340	37%	80%	13%
Pembroke Pines Blue East	32,037	8,928	22%	79%	7%
Pembroke Pines Blue West	31,557	6,227	25%	76%	12%
Pembroke Pines Gold Eastbound	26,378	7,001	26%	77%	13%
Pembroke Pines Gold Westbound	15,287	5,201	22%	73%	14%
Pembroke Pines Green	27,448	3,597	8%	70%	1%
Pompano Beach Blue	22,491	6,848	35%	81%	10%
Pompano Beach Green	20,541	6,505	22%	29%	12%
Pompano Beach Orange	30,112	7,396	29%	70%	8%
Pompano Beach Red	16,765	3,272	31%	70%	12%
SFEC/Tri-Rail Express	21,709	12,371	28%	65%	5%
Tamarac Red Extension	34,956	6,779	22%	76%	6%
Tamarac Red Off Peak	32,809	6,041	25%	77%	7%
Tamarac Red Peak	33,859	6,159	25%	77%	7%
West Park	39,864	5,739	29%	89%	6%