

STATE OF THE SYSTEM REPORT



Metropolitan Planning Organization

Move People & Goods | Create Jobs | Strengthen Communities

FEBRUARY 2023

I could not be prouder, serving as Mayor of the Great City of Pembroke Pines and as Chair of the Broward Metropolitan Planning Organization (MPO). This has provided me with a unique understanding of the needs of both my City and our Region. I am keenly aware that a great transportation can only be built by working collaboratively with all thirty-one cities, Broward County, the South Florida Transportation Authority, and the Florida Department of Transportation.

Our MPO is recognized nationally and internationally as a leader in developing partnerships, not only with other MPOs across the nation, but with advanced transportation associations in Europe and the Southeast Asia addressing technology, resiliency, and artificial intelligence.

Through unity of vision, our MPO continues to make significant gains on safety, accessibility, and technological advancement! Our continued success is due to the partnerships between our thirty-eight elected officials that constitute the MPOs Governing Board, the United States Department of Transportation, and our Federal and State delegations. By working together we have made Broward a great place to live, work and play and will continue for many more generations to come!



Frank Ortis
Chair



Gregory Stuart
Executive Director

Commitment, dedication and enthusiasm are words that best describe every member of the Broward Metropolitan Planning Organization (MPO)! The 2023 “State of the System” report provides a snapshot of what the MPO is doing when it comes to planning, programming and influencing our Federal and State investments which shapes the future of our region.

The MPO’s efforts to address safety by creating complete streets throughout our region has proven success as the total number of vehicular, bicycle and pedestrian accidents and fatalities are trending lower. Our residents are gaining better access to jobs, healthcare, and education thanks to investments we have made in last mile connectivity to our transit systems.

Our MPO is embracing the future by enhancing our transportation system with the most advanced technology to address the challenges ahead. The Sawgrass Expressway / Interstate 95 connector project, which completes our highway network, will apply the latest technology in vehicle communications and real time signalization to address potential delays in traffic management.

I hope you utilize the “State of the System” report to better understand our region’s current strengths, weaknesses and opportunities, and become part of our collaborative decision making process and join us in shaping the future of Broward’s transportation system.



“Through unity of vision, our MPO continues to make significant gains on safety, accessibility, and technological advancement!”

“The 2023 “State of the System” report provides a snapshot of what the MPO is doing when it comes to planning, programming and influencing our Federal and State investments which shapes the future of our region.”



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Purpose and Approach

The purpose of the State of the System Report is to provide a data-driven “snapshot” that assists us in our planning efforts and those of our regional planning partners. This report contains the most recent and available baseline transportation and land use data about Broward County and its multimodal transportation system. Having this data available and ready each year will improve our ability “to plan, prioritize, and fund the delivery of diverse transportation options,” as our *Strategic Business Plan’s* Mission Statement has specified.

Equipped with the most current conditions and key characteristics of Broward County, we can do more to identify mobility issues and align them with the current *Strategic Business Plan* Goals and Objectives, such as:

- Identify projects with the highest expected positive impacts;
- Fund projects that deliver diverse transportation options;
- Improve Board meetings and informational materials; and
- Expand staff technical skills and support services.

Within this report, there are two major sections:

1. **Overview of the Community**, which provides demographic and socioeconomic summaries of the County, and
2. **System Conditions and Facts**, in which each major transportation component and mode is discussed regarding facility conditions, traffic characteristics, performance, and financial conditions.

In general, this report highlights data attributes that will be important to all of our Core Product planning efforts, especially the *Metropolitan Transportation Plan (MTP)*, the *Transportation Improvement Plan (TIP)*, and the *Multimodal Priorities List (MMPL)*.

The U.S. Census Bureau’s 2021 American Community Survey (ACS) 5-Year Estimates Profile¹ serves as the primary data source for the Overview of the Community section. All other statistical summaries in this report used the most the recent and available data from other sources including the Broward MPO, Florida Department of Transportation (FDOT), Federal Railroad Administration (FRA), National Transit Database (NTD), Bureau of Transportation Statistics (BTS), and individual transportation providers.

¹For more information about the U.S. Census Bureau’s 2020 ACS 5-Year Estimates Profile, please visit <https://factfinder.census.gov>



Key Components of the Transportation System

Roadway System

- National Highway System
- Local Roadways
- Bridges

Transit System

- Broward County Transit
- Tri-Rail South Florida Regional Transportation Authority (SFRTA)
- Park & Ride Termini

Biking and Pedestrian Systems

- Bicycle Lanes
- Sidewalks and Shared Use Paths
- Bike-Share Systems
- Dockless Bike Share and Scooter Share
- Parks for Recreational Biking

Airports

- Fort Lauderdale-Hollywood International Airport (FLL)
- Pompano Beach Airpark
- Fort Lauderdale Executive Airport (FXE)
- North Perry Airport

Seaports and Waterways

- Port Everglades
- Waterways (e.g., canals)

Land Freight

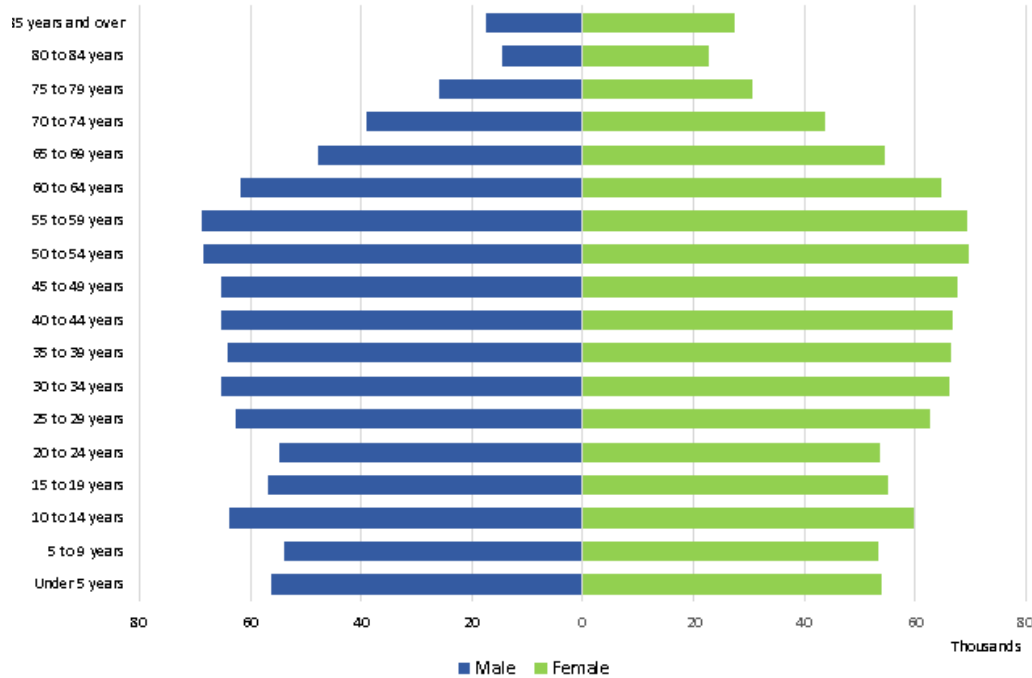
- Freight Railways
- National Freight Highway Network
- Intermodal and Transload Facilities
- Truck Parking Facilities



Land Use and Population

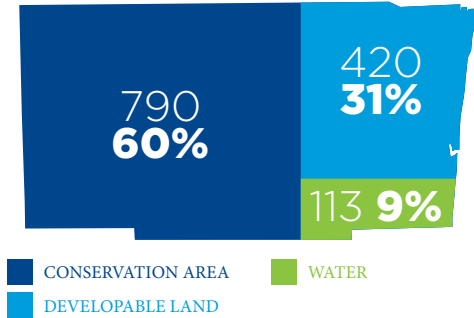
Broward County is continuing to grow. **The population has continued to increase by 0.9% annually since 2010 and was estimated to be 1.93 million in 2021** (1.73 million in 2010). The chart below shows the 2021 population by age cohort. Among the 31 municipalities in the County, Fort Lauderdale, Pembroke Pines, Hollywood, Miramar, and Coral Springs are the top 5 populated cities.

POPULATION BY AGE COHORT, BROWARD COUNTY, 2021



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

TOTAL AREA OF BROWARD COUNTY (SQUARE MILES)



DEVELOPABLE AREA 2045 LAND USE



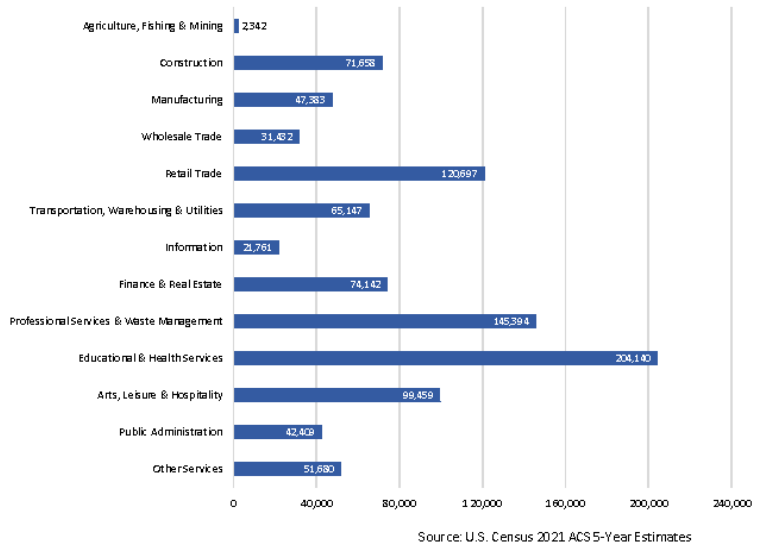
Source: Broward County Land Use Plan (Amendment 2018)



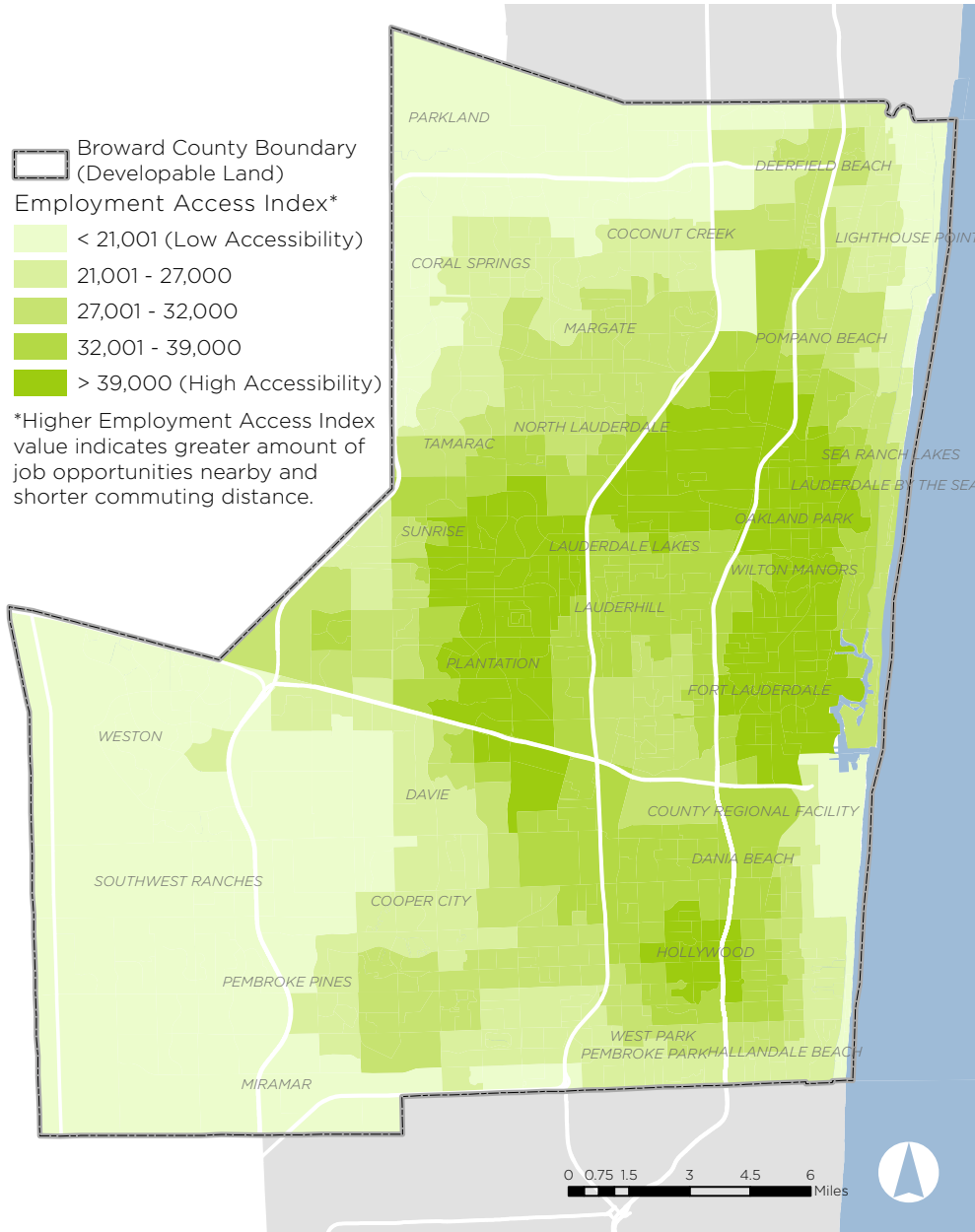
Employment

Approximately 978,000 employed people are working within many different industries in Broward County. Fort Lauderdale, Sunrise, Hollywood, Pompano Beach, Plantation, and Pembroke Pines provide over 50% of all job opportunities in the County. Workers living in these areas are located closer to employment centers, suggesting that a portion of them may have shorter commuting distances.

NUMBER OF EMPLOYEES BY INDUSTRY SECTOR, BROWARD COUNTY, 2021



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



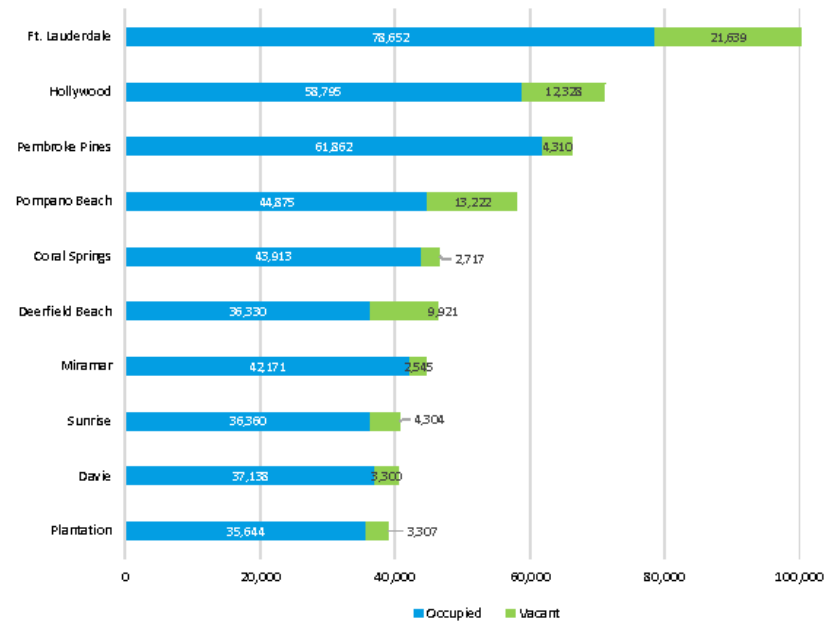
Source: LAI (Version 2.0), HUD



Housing

Broward County contains an estimated 855,000 housing units, with an average density of 2,546 units per square mile. **14.3% of these housing units are vacant, which is higher than the national housing vacancy rate of 9.7%.** In general, municipalities located by the ocean have higher development density but lower occupancy rate than those located inland.

HOUSING STOCK (UNIT) BY MUNICIPALITY, BROWARD COUNTY, 2021



Source: U.S. Census 2020 ACS 5-Year Estimates

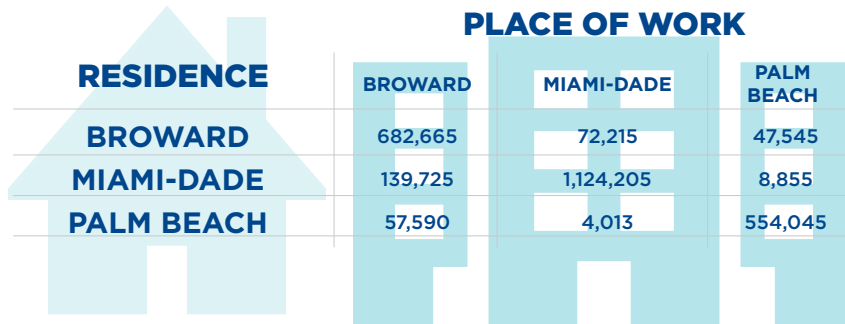
Source: U.S. Census ACS 2021 5-Year Estimates



Commuting

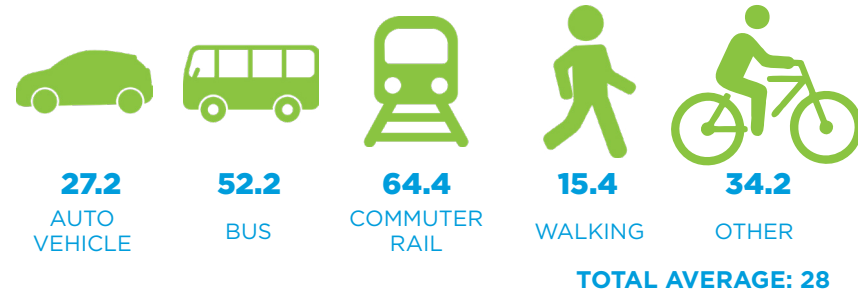
Broward County has 957,695 residents commuting within the region (South Florida) including 77% working in Broward, 16% working in Miami-Dade, and 7% working in Palm Beach. **Approximately, 93.7% of commuters rely on a personal automobile or carpool to get to work. On average, people spent 28.8 minutes commuting to work per trip in 2021.**

COMMUTING FLOW IN SOUTH FLORIDA



Source: U.S. Census ACS 2012-2016 Commuting Flows

COMMUTING TIME (AVERAGE MINUTES) BY MODE

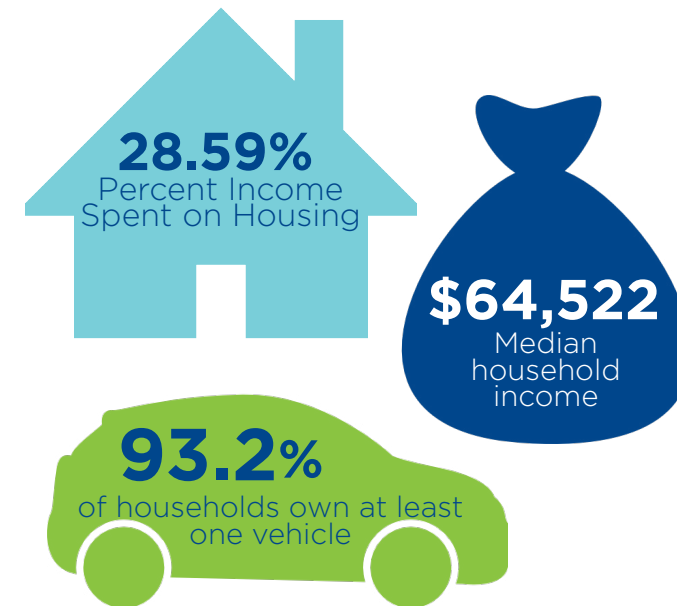


Source: U.S. Census ACS 2016 5-Year Estimates

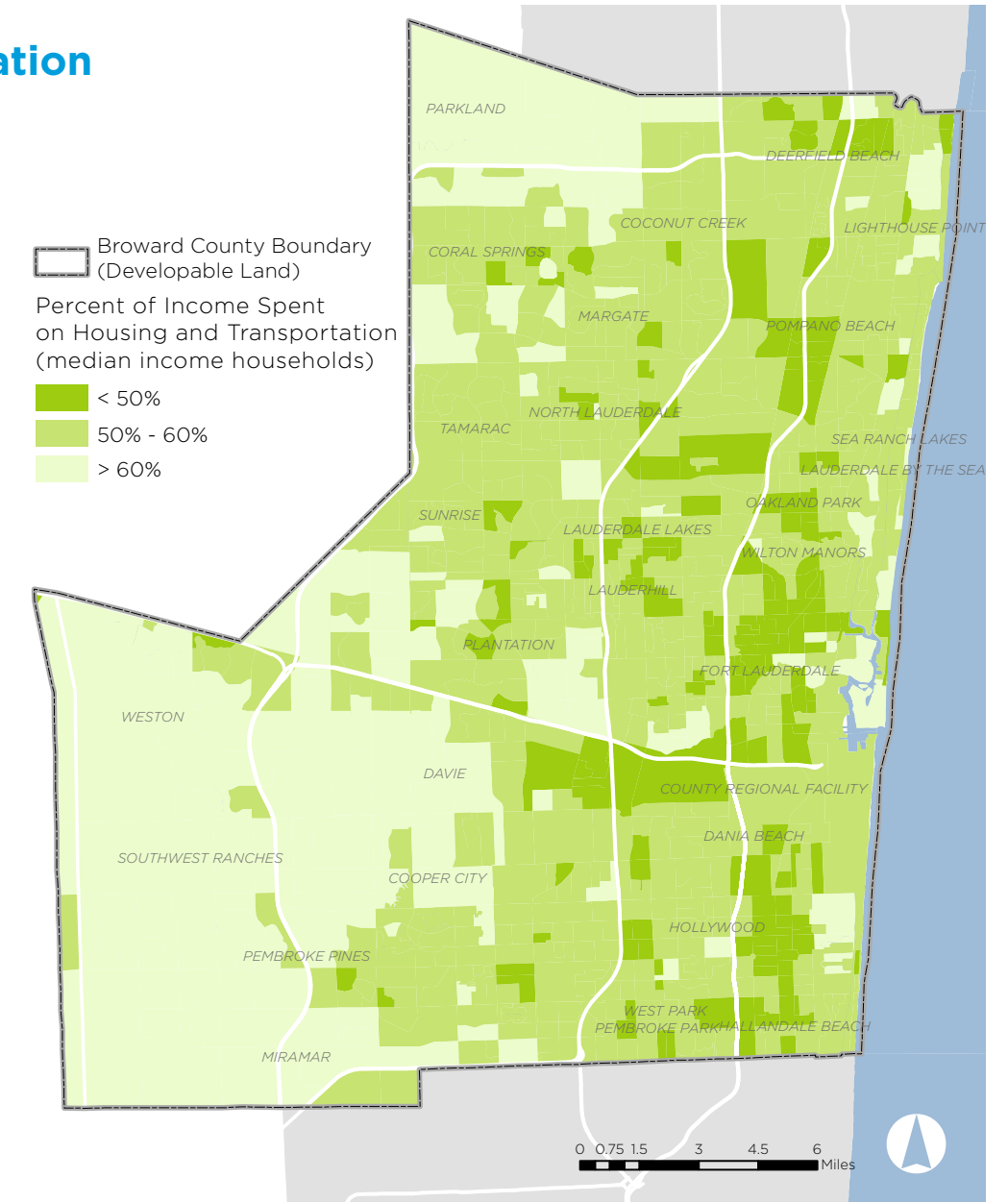


Housing and Transportation Affordability

Housing and Transportation (H+T) encompass a significant portion of the median household income. The map on the right shows the percent of income spent on H+T by median-income households. Below are some facts that directly affected Broward residents' perception of average housing and transportation costs.



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



Source: LAI (Version 2.0), HUD

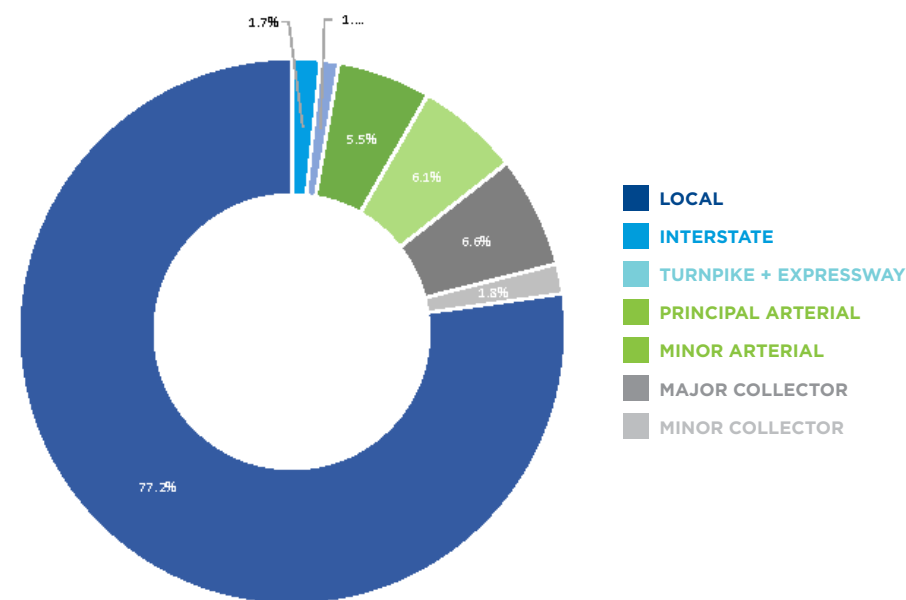


Broward County residents rely heavily on auto-oriented transportation, which creates demand for a well-designed, efficiently managed, and regularly maintained roadway system. In 2021, there were approximately 5,009 miles of roadways throughout the County which FDOT, Broward County, and the local municipalities maintained.

The County's major highway corridors, I-95, I-595, I-75, and the Florida Turnpike, carry long-distance intra- and inter-county traffic throughout the region. The arterials, collectors and local roadways connect communities to both major places of interest and larger transportation corridors.

5,009
TOTAL
ROADWAY
MILES

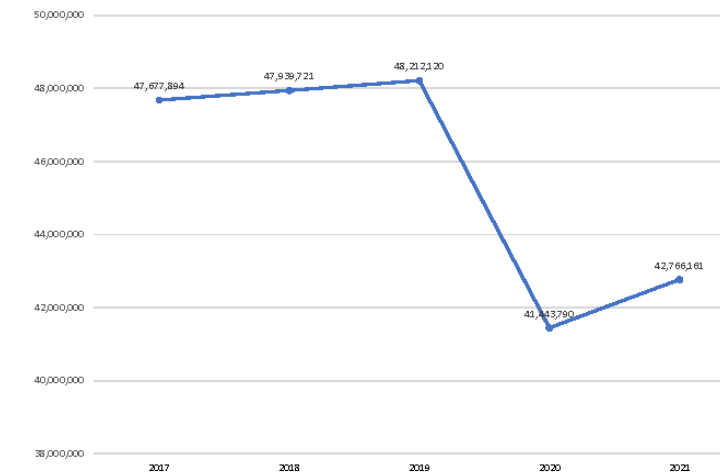
ROADWAY MILEAGE BY FUNCTIONAL CLASS, BROWARD COUNTY, 2021



Source: FDOT

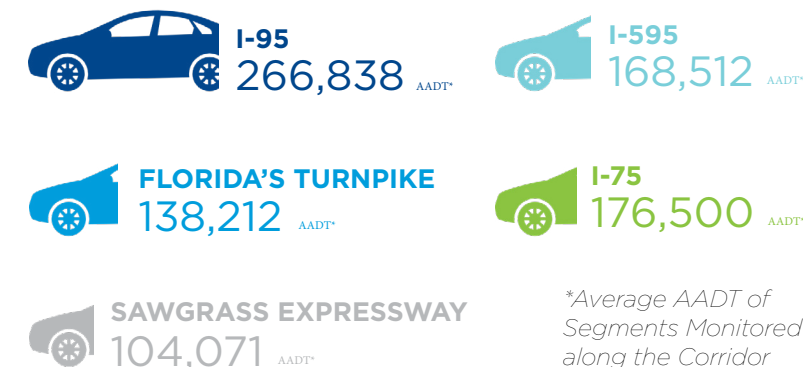
In 2021, Broward County's vehicle-based trips started to recover from the Covid-19 pandemic and it was reported that the daily vehicle miles traveled (DVMT) on public roads reached 42.8 million.

DAILY VEHICLE MILES TRAVELED BY YEAR, BROWARD COUNTY, 2017-2021



Source: FDOT

TOP FIVE TRANSPORTATION CORRIDORS WITH THE HEAVIEST TRAFFIC VOLUMES, BROWARD COUNTY, 2018



Source: FDOT

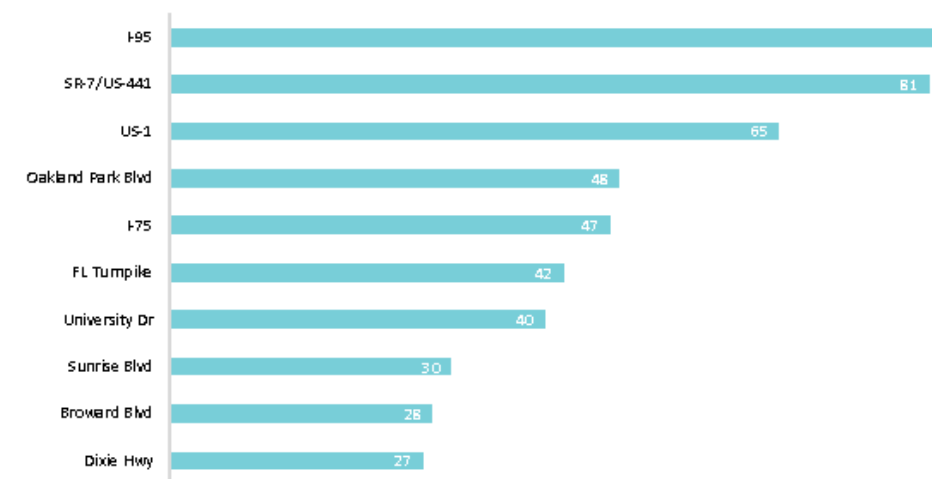
Roadway Safety Profiles

Safety is always a priority in Broward County. From 2017-2021, there were a total of:

394,651 TRAFFIC CRASHES
1,205 TRAFFIC FATALITIES
5,862 SEVERE TRAFFIC INJURIES

The average crash death rate is 62.2 per 100,000 population per year. Approximately 41% of all these fatal crashes were concentrated on these 10 roadway corridors shown below.

NUMBER OF FATAL CRASHES BY ROADWAY CORRIDORS, BROWARD COUNTY, 2017-2021



Source: FDOT

National Highway System

The National Highway System (NHS) is a strategic highway network of the United States. The pavement conditions (measured by the International Roughness Index), of the NHS in Broward County, roadways and bridge conditions (rated based on National Bridge Inspection Standards) can be seen below:

Interstate NHS
Pavement Conditions

Broward MPO 4-Year Target: 60% of Lane Miles Rated as "Good"

Current Conditions = 74.5% Good

Non-Interstate NHS
Pavement Conditions

Broward MPO 4-Year Target: 40% of Lane Miles Rated as "Good"

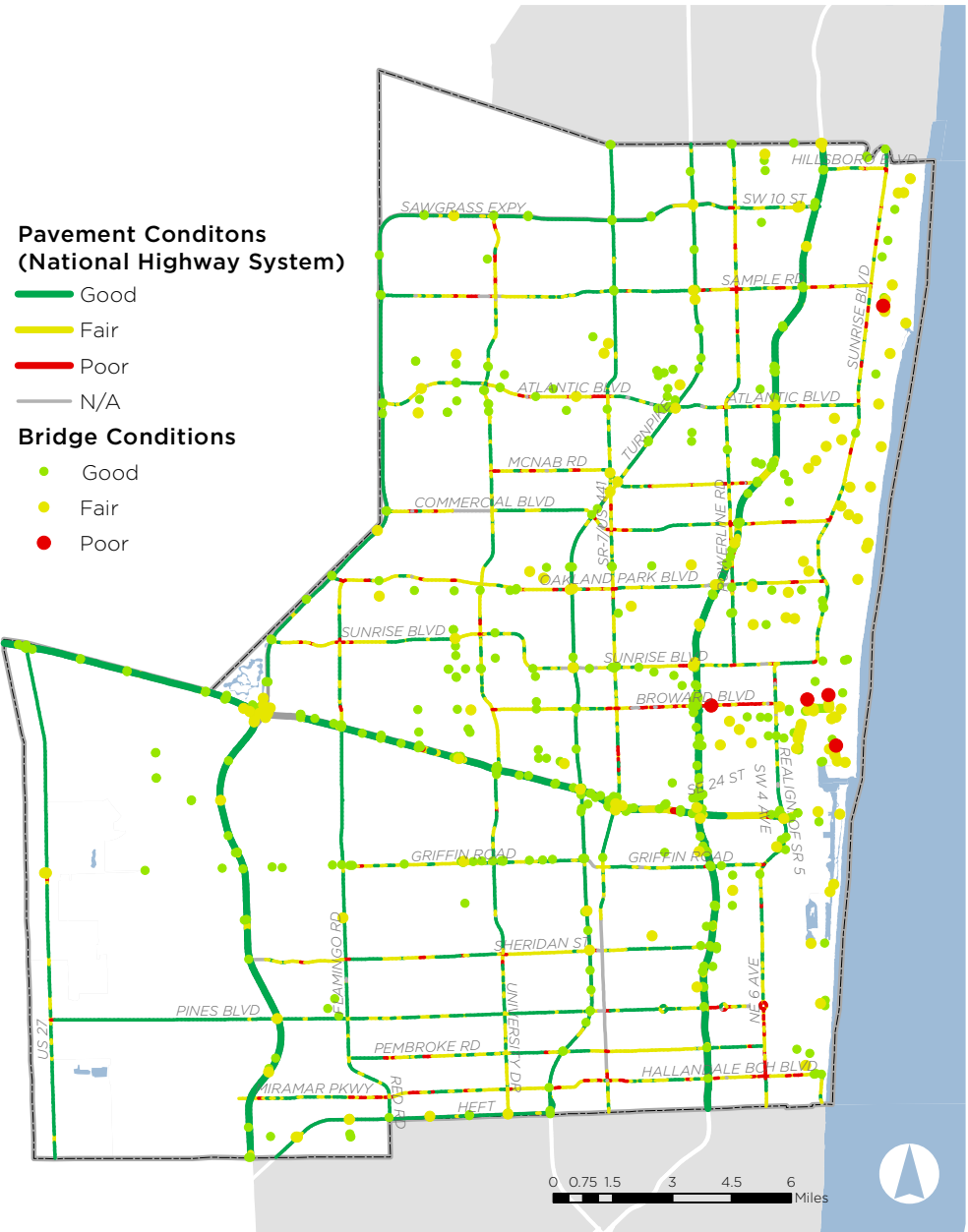
Current Conditions = 33.4% Good

NHS Bridges

Broward MPO 4-Year Target: 50% of Deck Area Rated as "Good"

Current Conditions = 65% Good

Source: FDOT (2021)



Source: FDOT and National Bridge Inventory

The Level of Travel Time Reliability (LOTTR), for a particular roadway segment on the Interstate or non-Interstate NHS, is defined as the consistency or dependability in travel times, as measured from day-to-day and/or across different times of day. The measures are the percent of person-miles traveled on the relevant portion of the NHS that are reliable. Person-miles are used because they take into account the users of the NHS, whether on bus, auto, or truck.

Interstate NHS LOTTR

Broward MPO 4-Year Target: 70% Person-Miles Traveled are Reliable

Current Conditions = 88% Reliable

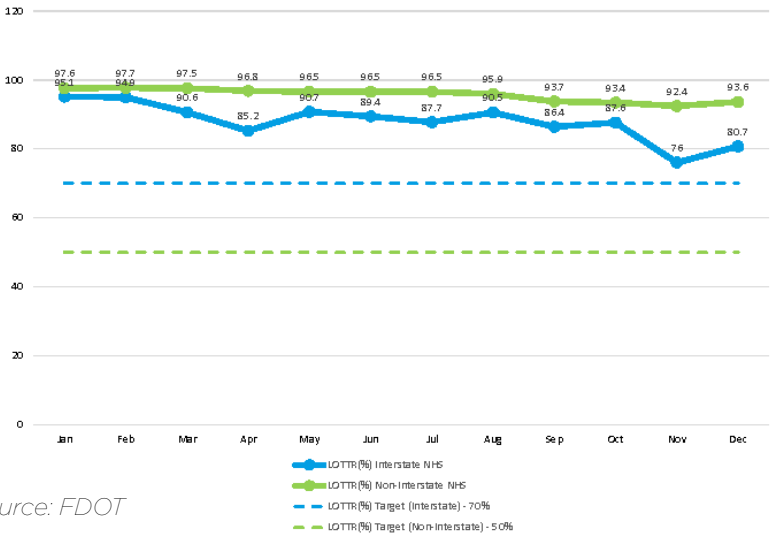
Non-Interstate NHS LOTTR

Broward MPO 4-Year Target: 50% of Person-Miles Traveled are Reliable

Current Conditions = 96% Reliable

Source: FDOT (2021)

LEVEL OF TRAVEL TIME RELIABILITY, BROWARD COUNTY, 2021



Source: FDOT

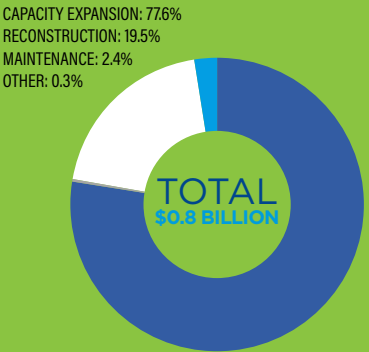
Current Roadway Construction Projects

Currently, there are 17 major roadway projects under construction in Broward County. According to FDOT, these projects are estimated to cost a total of \$1 billion, 70% of which are associated with two (2) interstate highway improvements. Those 2 projects are also "Capacity Expansions," and account for 70% of all costs.

Existing Roadway Planning Efforts

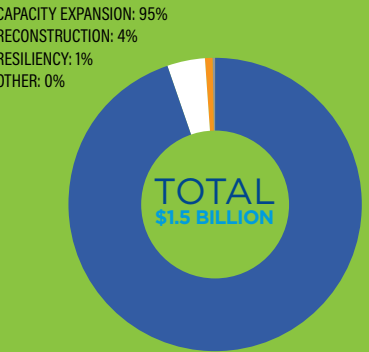
The Metropolitan Transportation Plan (MTP) is one of the Broward MPO's Core Products and is considered the "cost feasible" blueprint of the County's transportation system over the next 20 years. In our current MTP, Commitment 2045 (Adopted 12, 2019), 75 roadway projects were selected for future investments, worth a total of \$5.2 billion. Compared to the FDOT projects that are under construction, Commitment 2045's projects focus on capacity expansion and reconstruction of non-interstate arterials.

DISTRIBUTION OF COST BY TYPE FOR FDOT PROJECTS UNDER CONSTRUCTION, 2021



CAPACITY EXPANSION
MAINTENANCE

DISTRIBUTION OF COST BY TYPE FOR BROWARD MPO PROJECTS IN COMMITMENT 2045 (ADOPTED DEC 12, 2019)



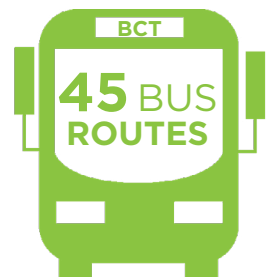
RECONSTRUCTION
RESILIENCY
OTHER

Source: FDOT and Broward MPO



The transit system in Broward mainly consists of Broward County Transit (BCT; an urban bus system with paratransit service), Tri-Rail (a commuter rail line that serves about 3.1% of commuters in the area), Brightline (privately owned intercity rail), and AMTRAK (interstate rail).

Tri-Rail, which is operated by the South Florida Regional Transportation Authority (SFRTA), connects Mangonia Park in Palm Beach County to Miami International Airport with 71-miles of tracks including seven rail stations located in Broward.



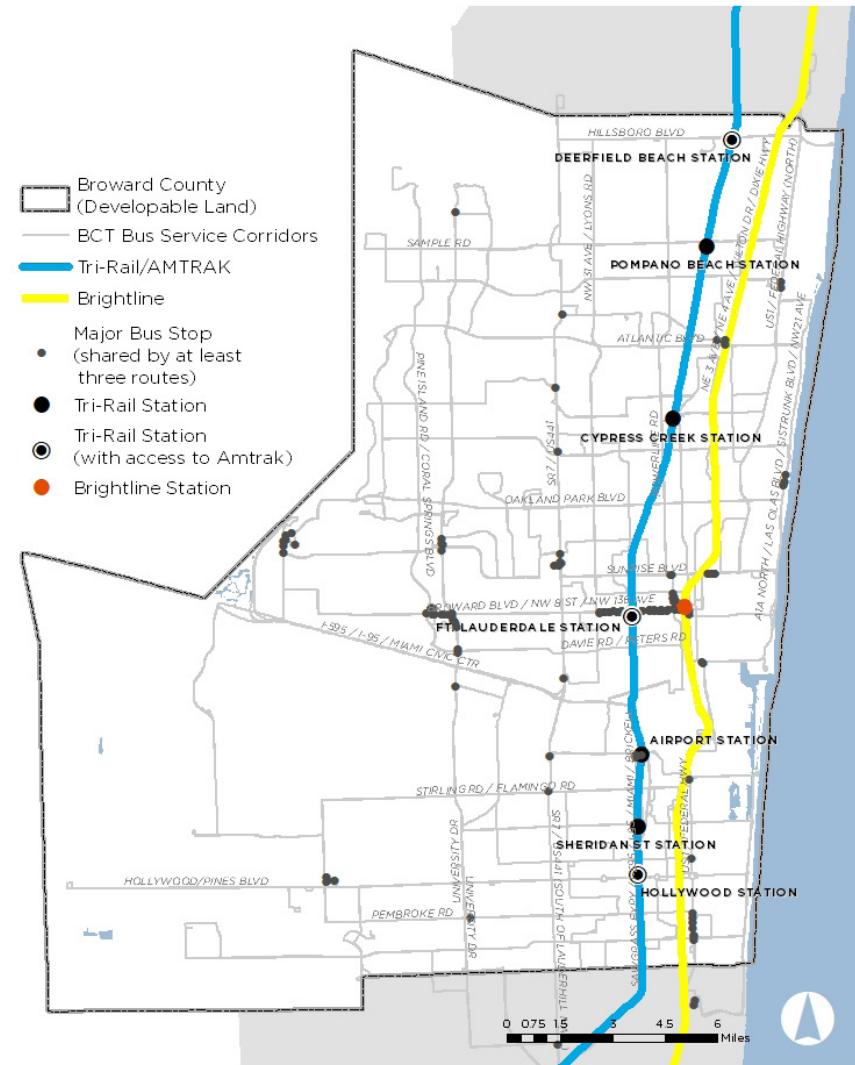
ONE
COMMUTER
RAIL LINE
(TRI-RAIL)

ONE
INTERCITY
PASSENGER
RAIL LINE
(BRIGHTLINE)

ONE
INTERSTATE
PASSENGER
RAIL LINE
(AMTRAK)

TRI-RAIL
7
STATIONS
AMTRAK
3
1
BRIGHTLINE

Transit Systems in Broward County



Source: FDOT and BTS

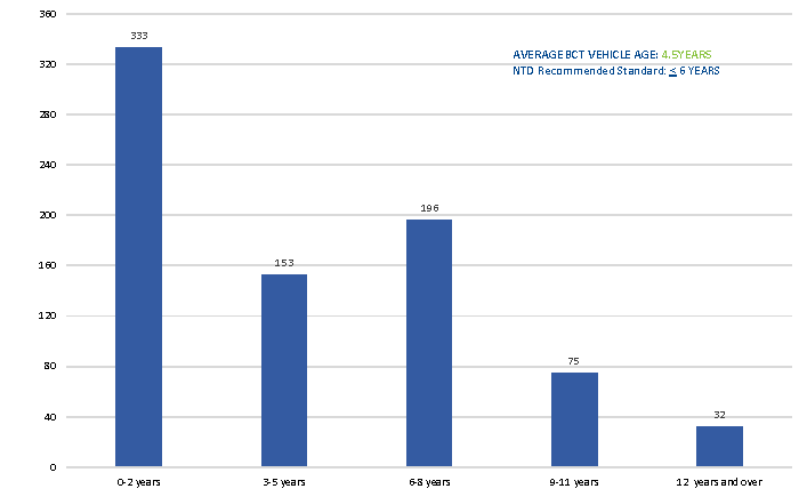
Per 2021 data, BCT operated a mixed fleet of 793 public and privately owned vehicles. Their vehicles available for maximum service (461 vehicles) had an average age of 4.5 years. BCT's bus fleet consisted of articulated buses, buses, cutaway buses and over-the-road buses. Their demand response fleet consisted of cutaway buses, minivans, and vans. No data was available for BCT's on-time performance.

BCT had 8.1 mechanical breakdowns per vehicle in 2021, which was higher than its neighboring peer (Miami-Dade Transit, 7.2, and Palm Tran, 5.6).

In the past five years, BCT's ridership has declined by 47.7%. In 2021, BCT recorded 15.6 million passenger trips. The average trip length was 4.6 miles/passenger trip. According to their financial reports, BCT had \$164.9 million of total operating expenses. 59% of these expenses were from vehicle operations.



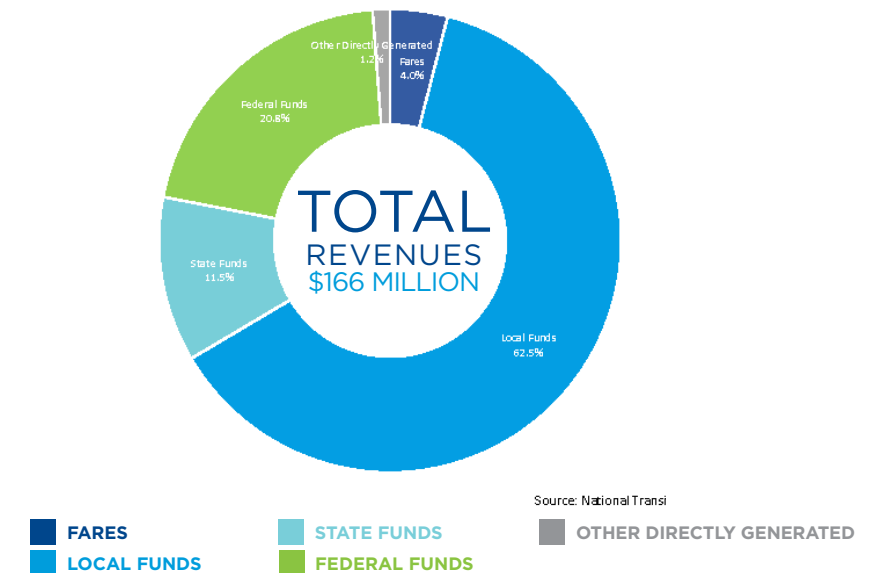
NUMBER OF FLEET VEHICLE BY AGE, BCT, 2021



Source: NTD

Source: National Transit Database

BCT OPERATING REVENUE SOURCES, 2021



Source: NTD

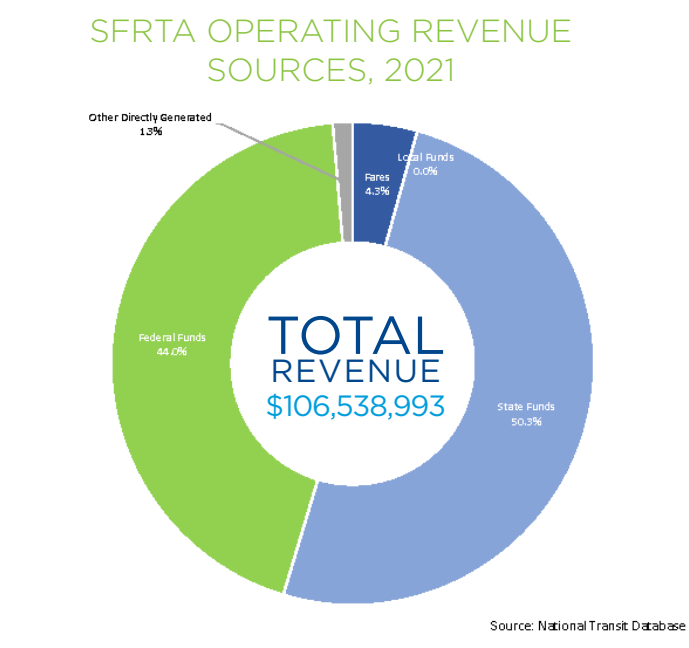
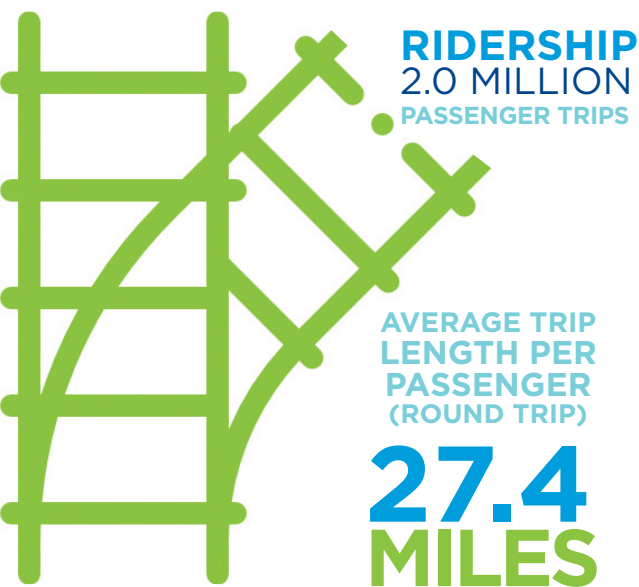
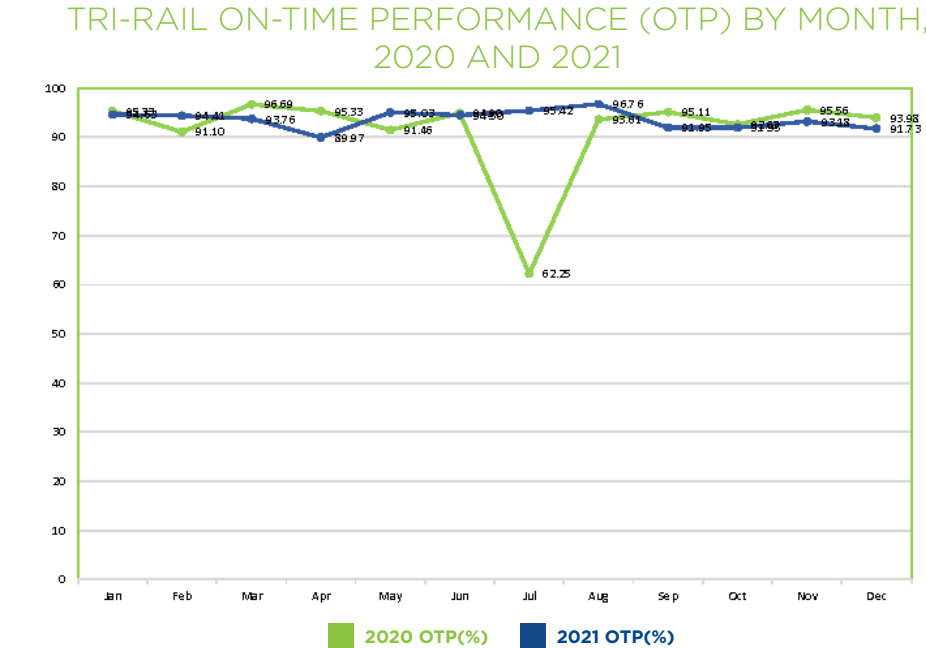
Source: National Transit

OTHER DIRECTLY GENERATED

In 2021, there were 2 million passenger trips made on Tri-Rail. Compared to the BCT, passengers tend to use commuter rail services for longer trips (average trip length: 27 miles/passenger trip).

Reliable commuting travel time ensures efficient transfers between modes. The average on-time performance (OTP; measured by the percentage of on-time services) of Tri-Rail was 93.6% in 2021, 2% higher compared to 2020. Common factors for service delays include regular facility maintenance, right-of-way conflicts with other track users, and mechanical breakdowns.

SFRTA had \$103.4 million of total operating expenses (mostly spent on vehicle operations and facility maintenance). State funds and federal funds were the primary revenue sources for recovering these expenses.



Transit Asset Management (TAM)

The Transit Asset Management rule from the Federal Transit Administration (FTA) became effective on October 1, 2016. The rule introduces requirements for new State of Good Repair (SGR) performance

measures and Transit Asset Management (TAM) Plans. Transit agencies and MPOs are required to set targets on a yearly basis.

| Performance Measure | Asset Class/Type | Useful Life Benchmark (ULB) | Adopted Regional Targets | Current Data |
|--|---|-----------------------------|--------------------------|--------------|
| Rolling Stock— Percentage of Revenue Vehicles that have met or exceeded their Useful Life Benchmark (ULB) | Cutaway Bus (CU) | 10 years | 0% | 0% |
| | Paratransit Mini Van (MV) | 8 years | 0% | 0% |
| | 40 Foot Bus (BU) | 14 years | 0% | 0% |
| | 60 Foot Articulated Bus (AB) | 14 years | 0% | 0% |
| | 45 Foot Bus (BR) | 14 years | 0% | 0% |
| | Commuter Rail Locomotive (RL) | 39 years | 25% | 26% |
| | Commuter Rail Passenger Coach (RP) | 39 years | 25% | 26% |
| Equipment— Percentage of non-revenue, support-service and maintenance vehicles that have met or exceeded their (ULB) | Commuter Rail self-propelled passenger car (RS) | 39 years | 25% | 26% |
| | All non-revenue vehicles | 8 years | 56% | 27% |
| Facilities — Percentage of facilities rated below Condition 3 on the FTA Transit Economic Requirements Model (TERM) | Other rubber tire vehicles | 14 years | 0% | 27% |
| | Passenger, maintenance, parking and administrative facilities | Condition Rating 3.0 | 5% | 3% |
| Infrastructure — Percentage of track segments with performance restrictions | Rail fixed guideway, track and signals | Performance Restrictions | 4% | 2% |



Public Transportation Agency Safety Plan (PTASP)

The Public Transportation Agency Safety Plan (PTASP) rule from the Federal Transit Administration (FTA) became effective on July 19, 2019. The rule introduces requirements for certain recipients and sub-recipients of FTA grants that operate public transportation to develop and implement a PTASP based on a safety management systems approach.

The PTASP is anticipated to help ensure that public transportation systems are safe nationwide. Transit agencies and MPOs are required to set transit safety targets on a yearly basis.

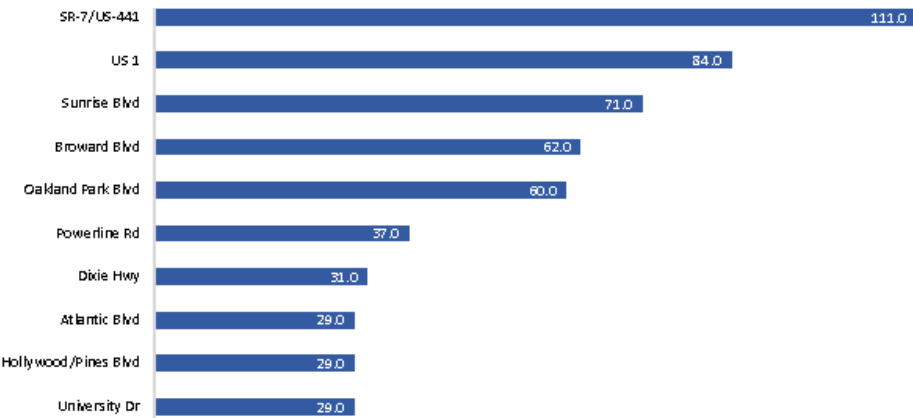
| Performance Measure | Mode | Adopted Targets | Current Data |
|---------------------|-----------------|-----------------|--------------|
| Fatalities | Fixed Route Bus | 0 | 3 |
| | Community Bus | 0 | 0 |
| | Paratransit | 0 | 1 |
| Fatality rate | Fixed Route Bus | 0.0 | 0.033 |
| | Community Bus | 0.0 | 0.0 |
| | Paratransit | 0.0 | 0.011 |
| Major Injuries | Fixed Route Bus | 71 | 71 |
| | Community Bus | 9 | 9 |
| | Paratransit | 13 | 13 |
| Major Injury Rate | Fixed Route Bus | 0.876 | 0.876 |
| | Community Bus | 0.568 | 0.568 |
| | Paratransit | 0.148 | 0.148 |
| Safety Events | Fixed Route Bus | 69 | 69 |
| | Community Bus | 12 | 12 |
| | Paratransit | 21 | 21 |
| Safety Event Rate | Fixed Route Bus | 0.851 | 0.851 |
| | Community Bus | 0.946 | 0.946 |
| | Paratransit | 0.222 | 0.222 |
| System Reliability | Fixed Route Bus | 4,200 | 3,676 |
| | Community Bus | 3,420 | 3,420 |
| | Paratransit | 82,000 | 82,000 |



Biking and Pedestrian

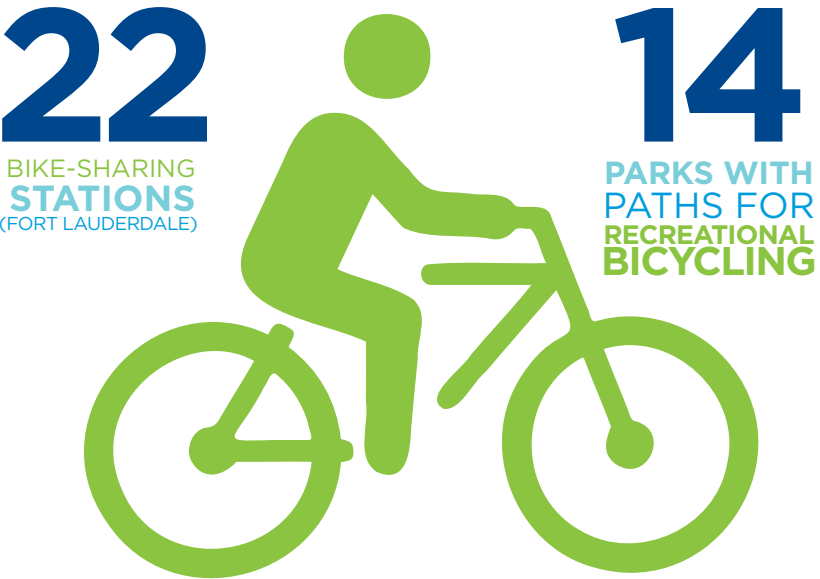
Compared to auto and transit users, bicyclists and pedestrians are considered the most vulnerable group of people on the roadway. Between 2017 and 2021, there were 1,370 fatalities and serious injuries in Broward County involving bicyclists and pedestrians. Broward has seen a decline in fatalities and serious injuries involving bicyclists and pedestrians from 2017 to 2021.

TOP 10 HIGH INJURY NETWORK CORRIDORS FOR BIKING & PEDESTRIAN FATALITIES & SERIOUS INJURIES BROWARD COUNTY



Source: FDOT

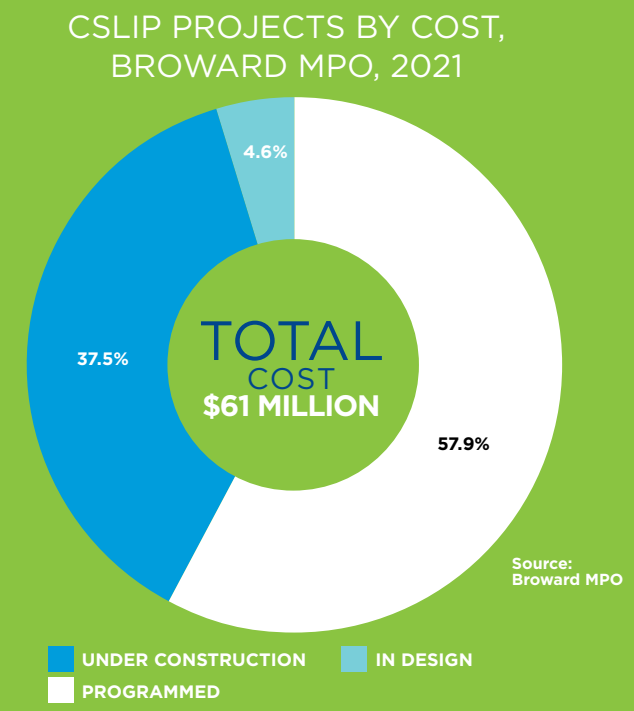
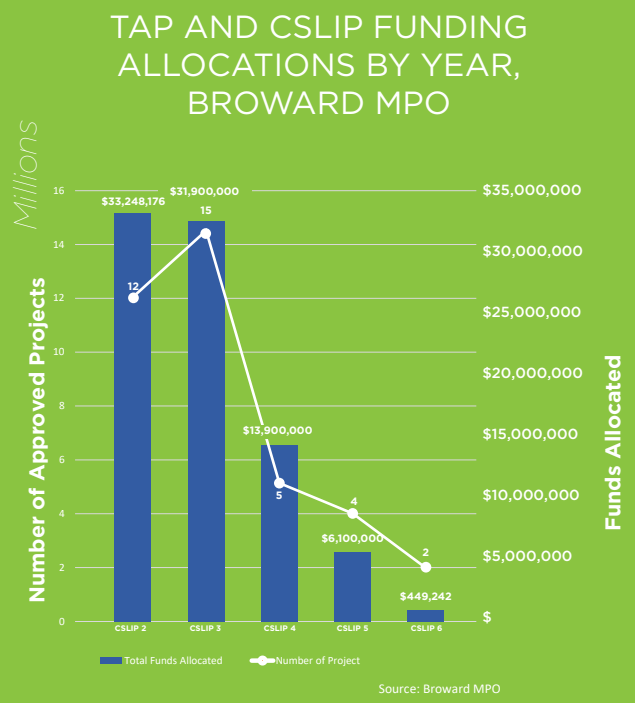
A good transportation system should be planned and designed for all users. In recent years, state, county, and local governments have been working to improve bicycle and pedestrian facilities in Broward County. In 2017, 49.7% of roadways featured sidewalks, and 5% had installed designated bike lanes.



Existing Planning Efforts (Biking & Pedestrian)

Between 2017 and 2021, the Broward MPO’s Transportation Alternative Program (TAP) and Complete Streets and Other Localized Initiatives Program (CSLIP; the replacement for TAP) helped fund 46 smaller, non-regionally significant transportation projects. These projects cost approximately \$61 million of total capital expenses.

The Broward Complete Streets Initiative was developed to assist local governments in creating a transportation system that serves all users. As the implementation arm of the Complete Streets Initiative, the Broward MPO’s Mobility Program identifies and implements new projects improving active transportation.



Broward County currently has 19 airfields serving the aviation industry, including four major airports (i.e., Fort Lauderdale-Hollywood International Airport, Fort Lauderdale Executive Airport, Pompano Beach Airpark, and North Perry Airport). In total, they generated approximately 712,546 flights (departures and arrivals) in 2021.

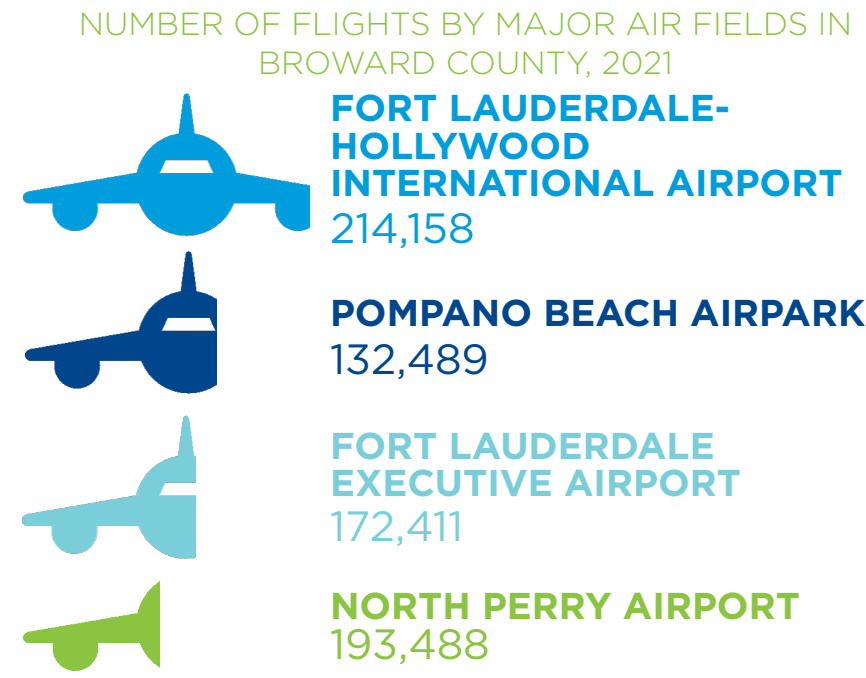
In 2021, Fort Lauderdale-Hollywood International Airport (FLL) ranked 20th among all major U.S. airports with 27.3 million passengers served (includes arrivals and departures). Miami International Airport (MIA), Palm Beach International Airport (PBI), shown below and, FLL all experienced increases in their passenger traffic in 2021 reversing the Covid-19 pandemic downturns.

FLL AIR TRAFFIC, 2021

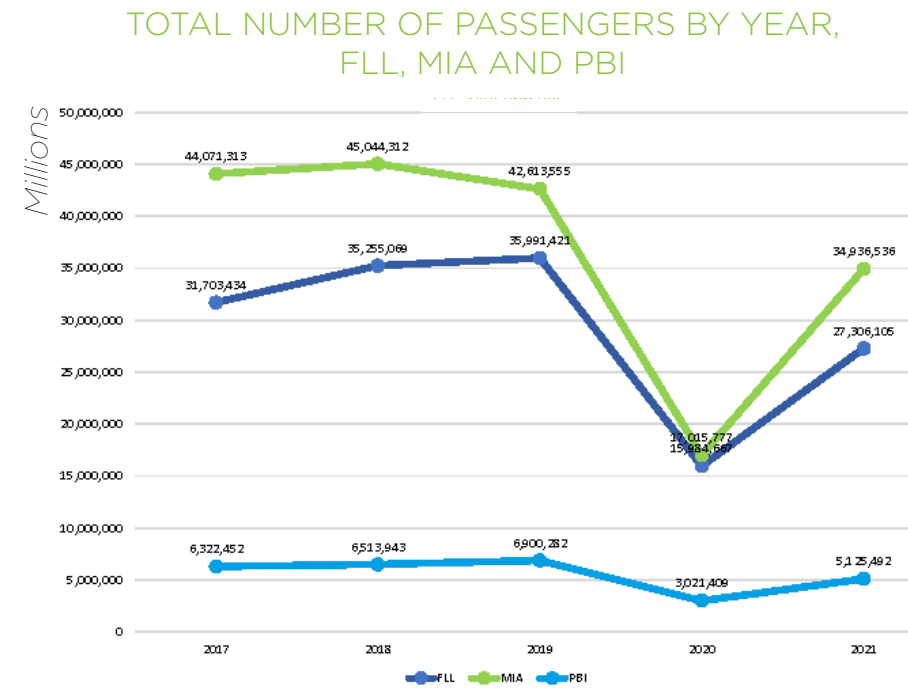
| PASSENGERS | |
|---------------|------------|
| Domestic | 23,284,213 |
| International | 4,021,892 |
| Arrival | 13,722,847 |
| Departure | 13,583,258 |

| AIR CARGO | |
|--------------------------|--|
| 526 lb. of landed weight | |

Source: BTS



Source: FDOT

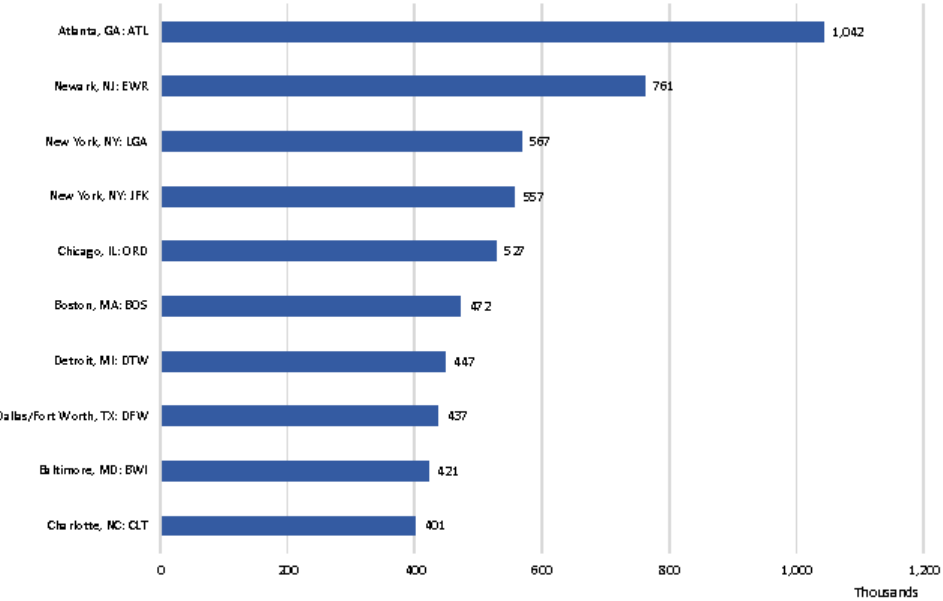


Source: BTS

In 2021, Hartsfield-Jackson Atlanta International Airport (ATL) received the most number of flights from FLL, compared to other major destinations. Southwest, JetBlue, Spirit, Delta, and American airlines provide more than 86% of flights coming to and from FLL. The on-time rate of FLL departed flights was 76% (ranked 23rd in the nation) with an average delay of 66.7 minutes (ranked 16th in the nation).

In 2021, FLL’s operating revenue were \$295.2 million, 64% of which were from passenger airline revenues, and parking and ground transportation. FLL’s annual operating expense was \$159.8 million.

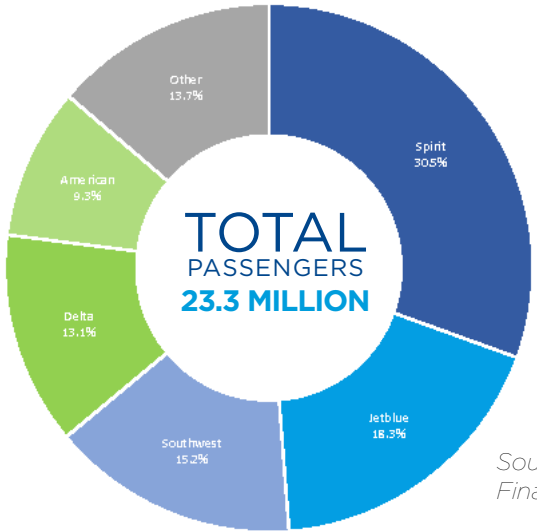
TOP 10 DESTINATIONS (FOR FLIGHTS DEPARTING FROM FLL) BY NUMBER OF PASSENGERS, 2021



Source: BTS

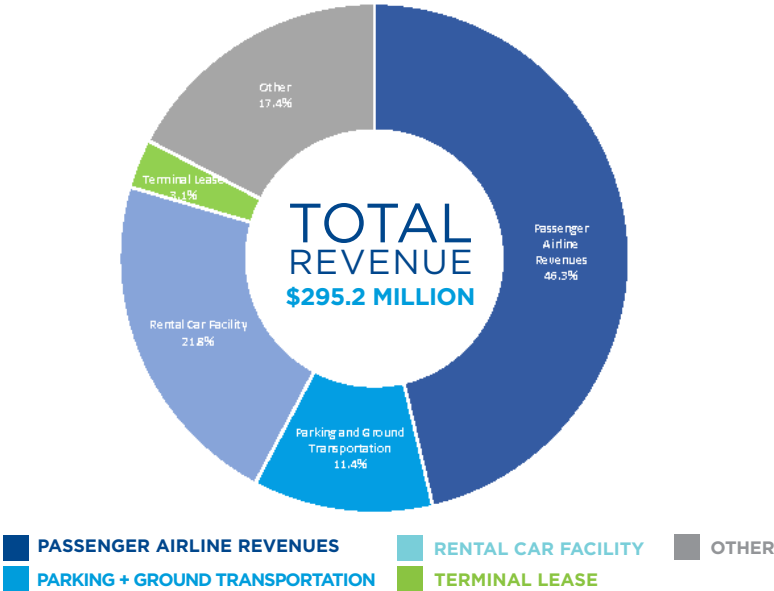
Source: Bureau of Transportation Statistics

NUMBER OF PASSENGERS BY AIRLINE, FLL, 2021



Source: FLL 2021 Financial Statements

FLL OPERATING REVENUE SOURCES, 2021



Source: BTS

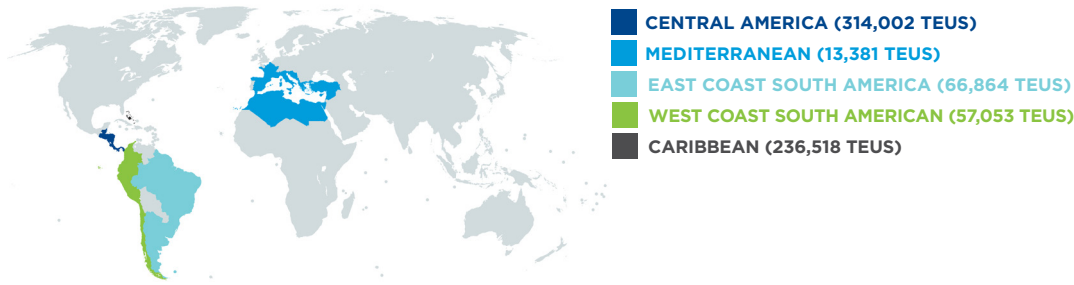


Seaports and Waterways

Broward County is well-known for its water-related assets. In total, there are 286 marina facilities and 94 port facilities (71 of them serve Port Everglades). These facilities are distributed between Port Everglades Harbor, the Intercoastal Waterway, and Broward County’s major rivers and canals (e.g., New River and Dania Cut Off Canal).

In 2021, Port Everglades remained one of the busiest container port in the nation, serving 6.5 million tons of containerized cargo and 15.1 million tons of petroleum and other cargo. Port Everglades’ operating revenue was \$103.5 million, and operating expense was \$67.2 million.

TOP 5 MARKETS OF CONTAINERIZED CARGO



TOP 5 COMMODITIES OF CONTAINERIZED CARGO



Source: Port Everglades

TOTAL SHIP CALLS
3,150

(2017-2021 growth: -21.8%)

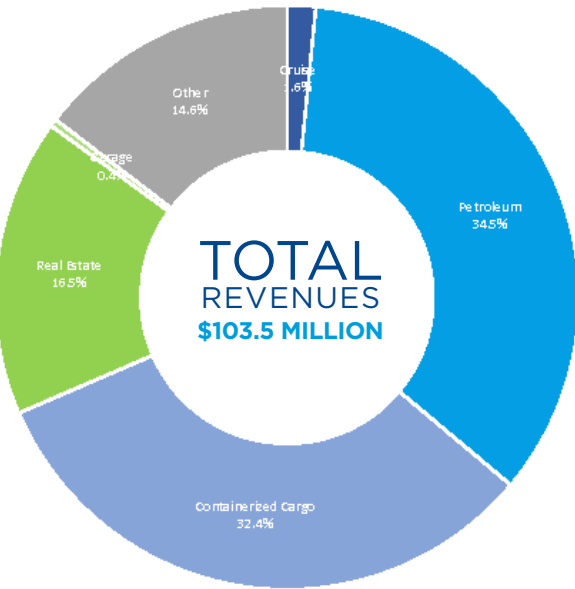
TOTAL CRUISE PASSENGERS
0.1 million

(2017-2021 growth: -97%)

TOTAL CARGO MOVEMENTS
23.5 million tons

(2017-2021 growth: -7.0%)

PORT EVERGLADES OPERATING REVENUE SOURCES, 2021



Source: Port Everglades

Land Freight

Broward County freight network consists of the roadways for trucks and railways for freight trains. Various intermodal and transload facilities connect these two components throughout the region.

I-95, I-595, and I-75 are designated as parts of National Highway Network (90.1 total miles in Broward County). This does not exclude other roadway corridors that have also been known to serve as alternative routes for large truck movements.

PERCENTAGE OF TRUCK TRAFFIC ON MAJOR FREIGHT CORRIDORS

FLORIDA'S TURNPIKE

I-95

I-75

SAWGRASS EXPRESSWAY

I-595

TRUCK % OF ALL TRAFFIC

9.1%

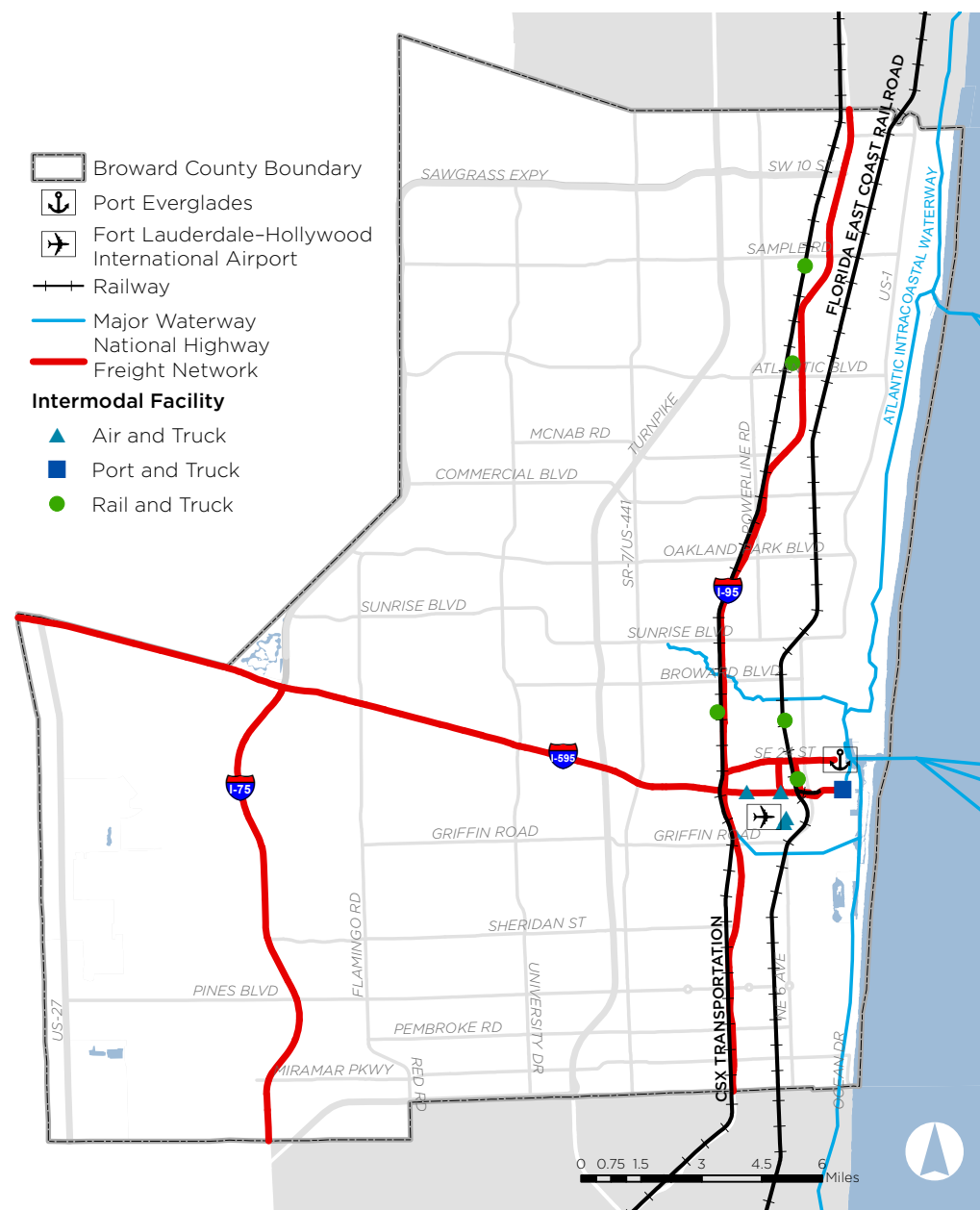
5.2%

8.7%

5.5%

6.3%

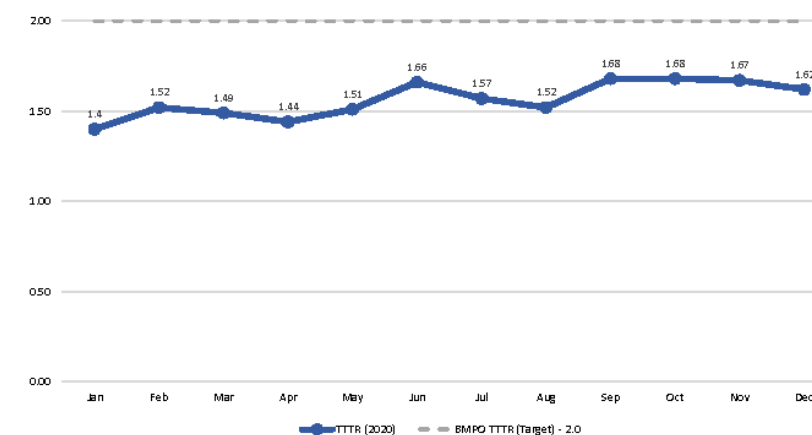
Source: FDOT



Source: FDOT and BTS

The Truck Travel Time Reliability (TTTR) Index is the FDOT's metric used to assess truck movement reliability on the Interstate system. In 2021, the average TTTR was 1.56, which exceeded the Broward MPOs' 4-year target (i.e., below 2.0).

TRUCK TRAVEL TIME RELIABILITY (TTTR) INDEX, BROWARD COUNTY, 2021



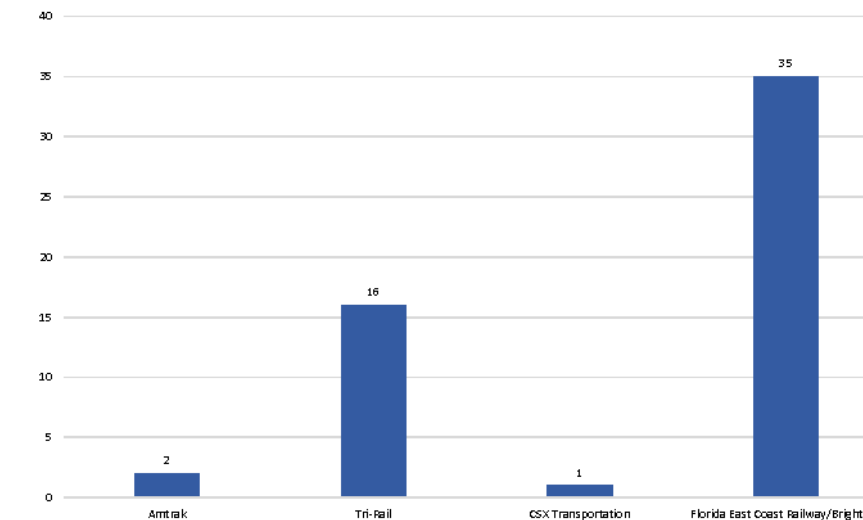
Source: FDOT

Broward County's rail freight system includes the Florida East Coast (FEC) Railway (whose rail tracks are shared with Brightline) and CSX Transportation line (whose rail tracks are shared with Tri-Rail and Amtrak). Between 2019 and 2021, the rail freight system had 54 grade crossing accidents that were reported by rail freight providers.

50.5
MILES OF
RAIL TRACKS

80
RAILWAY
GRADE
CROSSINGS

RAILWAY GRADE CROSSING CRASHES BY REPORTING AGENCY/COMPANY, 2019-2021



Source: FRA

Existing Planning Efforts (Freight)

The Broward MPO's Freight Transportation Advisory Committee (FTAC) was established to provide a forum for both the freight community and the MPO to improve decision-making regarding freight project selection and prioritization. The FTAC meets quarterly, attended by members, advisors, presenters and public audiences.

The Broward MPO worked with FEC, CSX, Brightline, Tri-Rail and eight Broward municipalities to create the Quiet Zone. This effort was meant to decrease noise levels from train horns throughout local communities. A 26-mile Quiet Zone segment along the FEC railroad corridor going through eight municipalities: Deerfield Beach, Pompano Beach, Oakland Park, Wilton Manors, Fort Lauderdale, Dania Beach, Hollywood, and Hallandale Beach has been implemented. This Quiet Zone is the largest continuous quiet zone in the country.

Glossary of Terms

| | |
|--|---|
| Annual Average Daily Traffic (AADT) | The total volume of traffic on a highway segment for one year, divided by the number of days in a year. |
| Daily Vehicle Miles Traveled (DVMT) | A measure of daily total vehicle activity. It is calculated by multiplying the number of vehicles (traffic volume) on a given roadway segment during a day by its length. |
| Employment Access Index (EAI) | Number of jobs in area block groups divided by squared distance of block groups. EAI is used in Location Affordability Index to measure the job accessibility of a particular area. Higher EAI indicates more jobs nearby and shorter commuting distances. |
| International Roughness Index (IRI) | Required by the Federal Highway Administration, IRI is a standard index for consistently expressing pavement smoothness. |
| Location Affordability Index (LAI) | Developed by U.S. Department of Housing and Urban Development (HUD), LAI is a user-friendly source of standardized data on combined housing and transportation costs to help consumers, policymakers, and developers make more informed decisions about where to live, work, and invest. LAI Version 2.0 uses 2008-2012 American Community Survey Data. |

| | |
|--|---|
| Level of Travel Time Reliability (LOTTR) | LOTTR is a ratio calculated by dividing the 80th percentile travel time of a reporting segment by the 50th percentile travel time of a reporting segment occurring throughout one full calendar year. Broward MPO reports the percentages of person-miles traveled on NHS structures that are considered reliable. |
| National Bridge Inspection Standards (NBIS) | Established by Federal Highway Administration, NBIS is used to inspect and rate the conditions of publicly owned bridges greater than 20 feet in length. |
| Twenty-Foot Equivalent Unit (TEU) | TEU is an standardized unit (20-foot long) of containerized cargo. It can be easily transferred between different freight transportation modes (e.g. ships, trains and trucks). |
| Truck Travel Time Reliability (TTTR) Index | TTTR is the metric used to assess the movement of trucks on the Interstate system. It is a ratio calculated by dividing the 95th percentile time by the 50th percentile for each segment. The TTTR Index is generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate. |

APPENDIX

Summary of Data Sources

| |
|---|
| BROWARD MPO http://www.BrowardMPO.org/ |
| FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) - TRAFFIC AND FACILITY http://www.fdot.gov/statistics/gis/ |
| AMERICAN COMMUNITY SURVEY, U.S. CENSUS BUREAU https://www.census.gov/programs-surveys/acs/ |
| FEDERAL HIGHWAY ADMINISTRATION (FHWA) - BRIDGE https://www.fhwa.dot.gov/bridge/nbi.cfm |
| FEDERAL RAILROAD ADMINISTRATION (FRA) - SAFETY https://safetydata.fra.dot.gov/OfficeofSafety/default.aspx |
| NATIONAL TRANSIT DATABASE (NTD) https://www.transit.dot.gov/ntd/ntd-data |
| BUREAU OF TRANSPORTATION STATISTICS (BTS) - AIRLINES AND AIRPORTS https://www.bts.gov/topics/airlines-and-airports-0 |
| PORT EVERGLADES http://www.porteverglades.net/ |





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