Broward MPO
Metropolitan Planning Organization
Move People & Goods | Create Jobs | Strengthen Communities

COMMITMENT 2045
move people & goods • create jobs • strengthen communities

Broward Metropolitan Planning Organization
Commitment 2045
Metropolitan Transportation Plan

Technical Report #10

Transit Peer Review

April 2019

MPO MISSION STATEMENT

To collaboratively plan, prioritize and fund the delivery of diverse transportation options.

MPO VISION STATEMENT

Our work will have measurable positive impact by ensuring transportation projects are well selected, funded and delivered.

Core Products of the Broward MPO

Table of Contents

Introduction

Transit in Broward has grown over the past 30 years, with services beginning in 1987 with the start of BCT and expanding to include commuter rail service through the South Florida Regional Transportation Authority (SFRTA). The system is projected to continue to experience substantial growth, with an estimated 2.2 million residents projected by 2045. With the recent (November 2018) passage of a 1% sales surtax for transportation, known as the "Penny for Transportation," Broward now has a dedicated local funding source to assist with its growth.

As part of the 2045 Metropolitan Transportation Plan, this Transit Peer Review provides an opportunity to compare transit markets across the country based on several key indicators of demographics, land use patterns, mobility, transit availability, and funding. The document provides profiles for selected areas of the United States that are either comparable to Broward (pre-sales tax) or potential ideals for Broward's overall system. These profiles are followed by a discussion of how Broward compares to these other areas and additional information about transit system governance and funding.

In addition to providing information about how other transit systems are funded and managed (governance), the primary purpose of this document is to establish a baseline for Broward prior to system expansion that is planned under the Penny for Transportation legislation. The indicators identified in the Area Profiles section are intended to be revisited on a regular basis to monitor how the changes in Broward's transportation system influence its rankings relative to the peers identified.

Area Profiles

Area profiles from a selection of transit agencies are used to give an overview of the current state of the practice. These profiles range from agencies similar to Broward in governance, land use, and population to transit programs that may be what Broward might aspire to be in the future.

The area profiles reveal the transportation mobility, demographics, governance, budget, and revenue mechanisms used by the comparable transit markets and best practice examples. Selected areas include:

- Atlanta, Georgia
- Boston, Massachusetts
- Broward County, Florida
- Charlotte, North Carolina
- Chicago, Illinois
- Denver, Colorado
- Kansas City, Missouri
- Miami-Dade County, Florida
- Minneapolis, Minnesota
- Orlando, Florida (Orange, Osceola, & Seminole counties)
- Philadelphia, Pennsylvania
- San Francisco, California
- Seattle, Washington

Data Sources & Analysis

All data sources and cited references are provided in Appendix A. The data sources used in developing the area profiles are from both public and private sector entities. Each data source referenced and its associated analysis or metric provides insight into the local and regional context for transit-related issues for each area profiled. A comparison table of related metrics found in the Comparisons section of this report provides an overview of how the identified peer transit markets are performing.

General demographic and labor force data were accessed from common sources such as the American Community Survey (ACS) published by the U.S. Census Bureau and the U.S. Department of Labor Bureau of Labor Statistics (BLS). More detailed transit factor information comes from the National Transit Database (NTD), the U.S. Department of Transportation (USDOT), and Florida transit data sources. Agency financial information is from annual financial reports from 2016 and includes budget and revenue sources for each agency. These reports are available to the public through each agency's website.

Area profiles include informational data for Metropolitan Statistical Area (MSA) population, density, employment, and mode share. These data are used to display transit-related metrics, including:

- Congestion Index Rank
- Transit access (% transit commuters, average income, population living within ½ mile of transit, jobs accessible by transit, etc.)
- High-frequency transit access
- Mobility (Transit Score and Walk Score)

These metrics help Broward compare its information with other areas around the nation.

Additional tools and data were used to develop scores and analytics associated with these metrics, such as the Center for Neighborhood Technology's AllTransit transit access database and Housing + Transportation Affordability Index, the Texas Transportation Institute, Redfin, and Smart Growth America. For population and density, MSA and County boundaries were used as the baseline for analysis to represent an area similar to a MPO's planning area (MPA), as is common practice for MPOs across the country.

Following are profiles of cities selected for this peer review.

ATLANTA, GEORGIA

AREA DETAILS

5.6 M	647	2.6 M	12th
MSA Population[1]	*Density[1] persons per sq mi*	*Employment[2]*	*Congestion Rank[3]*

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
87.8%	3.0%	1.4%	0.2%	1.3%	6.3%

Operating Agencies

Metro Atlanta Rapid Transit Authority (MARTA), Georgia Regional Transportation Authority (GRTA), City of Atlanta, Buckhead Community Improvement District (BCID), Atlanta Downtown Improvement District (ADID)

Governance

MARTA works with GRTA and Atlanta Regional Commission (ARC) to offer/plan service. By 2023, new Atlanta-region Transit Link Authority (ATL) will coordinate/integrate region's five authorities.

TRANSIT OPTIONS

- Heavy Rail (MARTA)
- Local Bus (MARTA)
- Demand Response (MARTA)
- Streetcar (City of Atlanta, MARTA, ADID)
- Free Shuttles (BCID, Private)
- Vanpool (Private)
- Bike Share (Private)
- Sports Shuttle (Private provider)
- College/University Buses (Emory University, Georgia Tech)
- Commuter Buses (GRTA, MARTA, CobbLinc, Gwinnet County Transit)

ATLANTA, GEORGIA

SERVICE DETAILS

Average Commute Time to Work[1]

30.2 min *Drive Alone* | **32.1** min *Carpool* | **53.9** min *Public Transportation*

Transit Access[4]

12%	19%	1.7 M	61.2 K	2
Commuters Who Use Transit	% of Income for Avg Transportation Costs	Population Living within ½ mi of Transit	Jobs Accessible in 30-min Trip	Transit Routes within ½ mi of Avg Block Group
		Population data aggregated to ½ mi around transit	Jobs data aggregated to Transit Access Shed, weighted by households	Transit routes available within block group and ½ mi of its border

Population Near High-Frequency Transit[4] (Avg headway of 15 min or less in 24-hr period)

Around the Clock (24 hrs)	0.5%	Full Day (7am-10pm)	3.5%	Rush Hour (7-9am, 4-6pm)	8.5%

Mobility Scores

Compact Neighborhood Score[4]	6.4	AllTransit Performance Score[4]	7.9	Transit Score[6]	46.0	Walk Score[5]	49.0

FUNDING SOURCES

- *Sales Tax (City & 3 Counties)*
- *Fares*
- *Investment Income*
- *State/Federal Grants*
- *Vehicle Ad Valorem Tax (3 Counties)*

2016 MARTA Budget[7]

Type	Operating	Capital
Fares	22.5%	0.0%
Local	46.8%	79.6%
State	0.0%	0.0%
Federal	11.8%	20.4%
Other	18.9%	0.0%

Dedicated Funding[8]

1971
Voters in 2 counties approve 1¢ sales tax for MARTA

2014
Voters in a 3rd county approve 1¢ sales tax to expand MARTA

2016
Voters approve add'l 0.5¢ sales tax

BOSTON, MASSACHUSETTS

AREA DETAILS

4.3 M	1,234	1.8 M	6th
MSA Population[1]	*Density[1] persons per sq mi*	*Employment[2]*	*Congestion Rank[3]*

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
73.4%	14.1%	5.6%	1.0%	1.2%	4.7%

Operating Agencies

Massachusetts Bay Transportation Authority (MBTA), Massachusetts Department of Transportation (MassDOT)

Governance

MBTA is under direct MassDOT oversight and funding. As sole provider of transit in metropolitan area, MBTA offers seamless integration between modes and services.

TRANSIT OPTIONS

- Heavy Rail (MBTA)
- Light Rail (MBTA)
- Commuter Rail (MBTA, Private)
- Local Bus (MBTA)
- Bus Rapid Transit (MBTA)
- Commuter Bus (Private)
- Trolley Bus (MBTA)
- Ferry (MBTA)
- Commuter Ferry (Private)
- Vanpool (MassDOT)
- Intercity Rail (Private)
- Express Bus (Private)
- Commuter Shuttle (Private)
- Bike Share (Private)

SERVICE DETAILS

Average Commute Time to Work[1]

29.0 min *Drive Alone*

29.8 min *Carpool*

46.6 min *Public Transportation*

Transit Access[4]

31%	12%	3.0 M	216.4 K	6
Commuters Who Use Transit	% of Income for Avg Transportation Costs	Population Live within ½ mi of Transit	Jobs Accessible in 30-min Trip	Transit Routes within ½ mi of Avg Block Group
		Population data aggregated to ½ mi around transit	Jobs data aggregated to Transit Access Shed, weighted by households	Transit routes available within block group and ½ mi of its border

Population Near High-Frequency Transit[4] (Avg headway of 15 min or less in 24-hr period)

Around the Clock (24 hrs): **2.7%**

Full Day (7am-10pm): **20.6%**

Rush Hour (7-9am, 4-6pm): **30.4%**

Mobility Scores

Compact Neighborhood Score[4]	AllTransit Performance Score[4]	Transit Score[6]	Walk Score[5]
9.4	**9.4**	**72.0**	**81.0**
0 – 10	0 – 10	0 – 100	0 – 100

FUNDING SOURCES

- Sales Tax
- Fares
- Advertising
- Parking
- Investment Income
- Local Assessment
- Toll Revenue
- Sustainability Bond
- State/Federal Grants

2016 MBTA Budget[7]

Type	Operating	Capital
Fares	33.3%	0.0%
Local	7.5%	22.1%
State	54.4%	37.8%
Federal	0.2%	40.1%
Other	4.6%	0.0%

Dedicated Funding[8]

2000

State of Massachusetts Forward Funding Legislation dedicated 20% of all State sales tax collected to MBTA

BROWARD COUNTY, FLORIDA

AREA DETAILS

1.8 M	1,544	1.0 M	12th
County Population[1]	Density[1], persons per sq mi	Employment[2]	Congestion Rank[3]

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
88.8%	3.0%	1.3%	0.6%	1.5%	4.9%

Operating Agencies

Broward County Transit (BCT), Broward County Community Bus Service (operated through Interlocal Agreements with 19 Broward municipalities), Miami-Dade Transit (MDT), South Florida Regional Transportation Authority (SFRTA)

Governance

BCT coordinates with local municipalities for Community Bus Service, MDT for Express Bus service, and SFRTA. Also works closely with Broward MPO for Federal funding support.

TRANSIT OPTIONS

- Commuter Rail (Tri Rail/SFRTA)
- Local Bus (Broward County Transit)
- Community Bus (19 municipalities)
- Trolley/Shuttle (SFRTA, Private)
- Water Taxi (Private)
- Express Bus (Broward County Transit, MDT)
- Demand Response (Broward County Transit)
- Vanpool (Private Provider)
- Intercity Rail/Higher Speed Rail (Private)
- Bike Share (Private)

SERVICE DETAILS

Average Commute Time to Work[1]

27.1 min *Drive Alone* | **27.7** min *Carpool* | **52.9** min *Public Transportation*

Transit Access[4]

6%	24%	1.4 M	108 K	3
Commuters Who Use Transit	% of Income for Avg Transportation Costs	Population Live within ½ mi of Transit	Jobs Accessible in 30-Min Trip	Transit Routes within ½ mile of Avg Block Group
		Population data aggregated to ½ mi around transit	Jobs data aggregated to Transit Access Shed, weighted by households	Transit routes available within block group and ½ mi of its border

Population Near High-Frequency Transit[4] (Avg headway of 15 min or less in 24-hr period)

Around the Clock (24 hrs.)	Full Day (7am-10pm)	Rush Hour (7-9am, 4-6pm)
0.0%	0.0%	9.6%

Mobility Scores

Compact Neighborhood Score[4]	AllTransit Performance Score[4]	Transit Score[6]	Walk Score[6]
2.1	5.1	31.0	42.0
0–10	0–10	0–100	0–100

FUNDING SOURCES

- Sales Tax
- Gas Tax
- Toll Revenues
- Fares
- Advertising
- State/Federal Grants
- General Fund via Property Tax

2016 BCT Budget[7]

Type	Operating	Capital
Fares	27.6%	0.0%
Local	49.1%	0.0%
State	14.8%	0.0%
Federal	3.9%	100.0%
Other	4.6%	0.0%

Dedicated Funding[8]

2018

Broward County voters approved transportation surtax to provide dedicated funding

CHARLOTTE, NORTH CAROLINA

AREA DETAILS

2.0 M	399	1.1 M	35th
MSA Population[1]	*Density*[1] *persons per sq mi*	*Employment*[2]	*Congestion Rank*[3]

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
89.8%	1.9%	1.5%	0.1%	1.1%	5.6%

Operating Agencies

Charlotte Area Transit System (CATS)

Governance

CATS is provider of transit services for Charlotte area, works with Metropolitan Transit Commission (MTC) to set policy and conduct long range planning. Represents City of Charlotte, Mecklenburg County, and 6 other towns in area.

TRANSIT OPTIONS

- Light Rail (CATS)
- Streetcar (CATS)
- Local Bus (CATS)
- Commuter Bus (CATS)
- Circulator (CATS)
- Intercity Rail (Private)
- Demand Response (CATS, Mecklenburg County DSS)
- Vanpool (CATS)
- Intercity Bus (Private)
- Bike Share (Private)

CHARLOTTE, NORTH CAROLINA

SERVICE DETAILS

Average Commute Time to Work[1]

25.7 min *Drive Alone* | **27.5** min *Carpool* | **47.1** min *Public Transportation*

Transit Access[4]

4%	22%	767.3 K	50.8 K	2
Commuters Who Use Transit	% of Income for Avg Transportation Costs	Population Live within ½ mi of Transit	Jobs Accessible in 30-min Trip	Transit Routes within ½ mi of Avg Block Group
		Population data aggregated to ½ mi around transit	Jobs data aggregated to Transit Access Shed, weighted by households	Transit routes available within block group and ½ mi of its border

Population Near High-Frequency Transit[4] (Avg headway of 15 min or less in 24-hr period)

Around the Clock (24 hrs)	Full Day (7am-10pm)	Rush Hour (7-9am, 4-6pm)
0.0	4.2%	7.1%

Mobility Scores

Compact Neighborhood Score[4]	AllTransit Performance Score[4]	Transit Score[6]	Walk Score[6]
5.0	4.2	27.0	26.0

0 — 100

FUNDING SOURCES

- Sales Tax
- Fares
- Advertising
- State/Federal Grants
- Investment Income
- Joint Development

2016 CATS Budget[7]

Type	Operating	Capital
Fares	22.1%	0.0%
Local	64.2%	8.3%
State	7.7%	10.7%
Federal	4.0%	80.8%
Other	2.0%	0.3%

Dedicated Funding[8]

1998
Voters approve 0.5¢ sales tax dedicated to public transit initiatives

2007
Voters reaffirm sales tax by 70% to 30% margin

CHICAGO, ILLINOIS

AREA DETAILS

8.6 M	1,203	4.6 M	8th
MSA Population[1]	*Density*[1] *persons per sq mi*	*Employment*[2]	*Congestion Rank*[3]

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
77.4%	12.7%	3.3%	0.7%	1.1%	4.8%

Operating Agencies

Chicago Transit Agency (CTA), Metra, Pace, Northwest Indiana Commuter Transit District

Governance

Regional Transportation Authority (RTA) coordinates transit and provides financial oversight, funding, and regional transit planning for Chicago area. Chicago Metropolitan Agency for Planning (CMAP) overlaps roles with RTA. Some integration between transit systems with mobile fares.

TRANSIT OPTIONS

- Heavy Rail (CTA)
- Commuter Rail (Metra, Northwest Indiana Commuter Transit)
- Local Bus (CTA)
- Bus Rapid Transit (CTA, City of Chicago)
- Commuter Bus (Pace)
- Bus Rapid Transit (CTA, City of Chicago)
- Intercity Bus (Private)
- Demand-Response (Pace)
- Vanpool (Pace)
- Water Taxi (Private)
- Bike Share (Private)
- Water Taxi (Private)

CHICAGO, ILLINOIS

SERVICE DETAILS

Average Commute Time to Work[1]

29.2 min	*Drive Alone*	**30.4** min	*Carpool*	**49.6** min	*Public Transportation*

Transit Access[4]

30%	16%	6.4 M	207.8 K	5
Commuters Who Use Transit	*% of Income for Avg Transportation Costs*	*Population Live within ½ mi of Transit*	*Jobs Accessible in 30-min Trip*	*Transit Routes within ½ mi of Avg Block Group*
		Population data aggregated to ½ mi around transit	*Jobs data aggregated to Transit Access Shed, weighted by households*	*Transit routes available within block group and ½ mi of its border*

Population Near High-Frequency Transit[4] *(Avg headway of 15 min or less in 24-hr period)*

Around the Clock (24 hrs)	Full Day (7am-10pm)	Rush Hour (7-9am, 4-6pm)
25.2%	28.1%	31.3%

Mobility Scores

Compact Neighborhood Score[4]	AllTransit Performance Score[4]	Transit Score[6]	Walk Score[5]
8.1	9.1	65.0	78.0
0 – 10	0 – 10	0 – 100	0 – 100

FUNDING SOURCES

- *Sales Tax*
- *Fares*
- *RTA Discretionary*
- *Public Transportation Fund (PTF)*
- *Investment Income*
- *Advertising*
- *State/Federal Grants*

2016 CTA Budget[7]

Type	Operating	Capital
Fares	39.8%	0.0%
Local	35.3%	44.0%
State	19.2%	1.4%
Federal	0.5%	53.9%
Other	5.2%	0.8%

Dedicated Funding[8]

1983
Voters approve sales tax with 1% in 1 county, 0.25% in other, 25% PTF match of 25¢ on dollar

2008
Voters approve increase of 0.25% sales tax, 5% PTF match

2008
Voters approve increase of 0.25% sales tax, 5% PTF match

DENVER, COLORADO

AREA DETAILS

2.7 M	330	1.4 M	19th
MSA Population[1]	*Density[1] persons per sq mi*	*Employment[2]*	*Congestion Rank[3]*

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
84.7%	4.3%	0.8%	0.8%	2.2%	7.1%

Operating Agencies

Regional Transportation District (RTD), Colorado Department of Transportation (CDOT)

Governance

RTD offers most service, with CDOT and private providers supporting. Coordination led by RTD in cooperation with CDOT & Denver Regional Council of Governments (MPO). RTD as single authority allows seamless mode integration.

TRANSIT OPTIONS

- Light Rail (RTD)
- Commuter Rail (RTD)
- Local Bus (RTD)
- Bus Rapid Transit (RTD)
- Free Shuttles/Circulators (RTD)
- Commuter Bus (CDOT)
- Demand-Response (RTD)
- Vanpool (Private Provider)
- Specialized Senior Transportation (Private)
- Bike Share (Private)

SERVICE DETAILS

Average Commute Time to Work[1]

26.2 min *Drive Alone* | **28.5** min *Carpool* | **48.5** min *Public Transportation*

Transit Access[4]

11%	18%	1.6 M	135.6 K	5
Commuters Who Use Transit	% of Income for Avg Transportation Costs	Population Live within ½ mi of Transit	Jobs Accessible in 30-min Trip	Transit Routes within ½ mi of Avg Block Group
		Population data aggregated to ½ mi around transit	Jobs data aggregated to the Transit Access Shed, weighted by households	Transit routes available within block group and ½ mi of its border

Population Near High-Frequency Transit[4] (Avg headway of 15 min or less in 24-hr period)

Around the Clock (24 hrs)	Full Day (7am-10pm)	Rush Hour (7-9am, 4-6pm)
0.0	7.0%	13.7%

Mobility Scores

Compact Neighborhood Score[4]	AllTransit Performance Score[4]	Transit Score[6]	Walk Score[5]
6.5 (0–10)	7.9 (0–10)	48.0 (0–100)	61.0 (0–100)

FUNDING SOURCES

- Sales Tax
- Fares
- Advertising
- State/Federal Grants
- Public Private Partnerships
- Joint Development

2016 RTD Budget[7]

Type	Operating	Capital
Fares	22.5%	0.0%
Local	60.1%	73.1%
State	0.1%	0.2%
Federal	12.7%	26.7%
Other	4.7%	0.0%

Dedicated Funding[8]

1973
Voters approve 0.5% sales tax initiative to finance multi-modal transit system

2004
Voters approve Fastracks transit tax (0.4%) for region-wide transit expansion

KANSAS CITY, MISSOURI

AREA DETAILS

1.2 M	167	1.3 M	51st
MSA Population[1]	Density[1] persons per sq.mi	Employment[2]	Congestion Rank[3]

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
91.3%	1.5%	1.5%	0.2%	1.0%	4.5%

Operating Agencies

Kansas City Area Transportation Authority (KCATA)/RideKC, Johnson County Transit (JCT), IndeBus, Unified Government (UG), KC Streetcar Authority (KCSA)

Governance

Transit coordinated through Regional Transit Coordinating Council (RTCC), Mid-America Regional Council (MARCH) MPO, transit providers. Transit integrated through RideKC platform.

TRANSIT OPTIONS

- Streetcar (KCSA)
- Local Bus (KCATA, UG, JCT)
- Bus Rapid Transit (KCATA)
- Commuter Bus (IndeBus, JCT)
- Demand Response (KCATA, UG, JCT)
- Vanpool (KCATA)
- Intercity Rail (Private)
- Intercity Bus (Private)
- Bike Share (Private)

SERVICE DETAILS

Average Commute Time to Work[1]

22.5 min *Drive Alone* | **24.7** min *Carpool* | **41.0** min *Public Transportation*

Transit Access[4]

4%	21%	838.3 K	47.6 K	2
Commuters Who Use Transit	% of Income for Avg Transportation Costs	Population Live within ½ mi of Transit	Jobs Accessible in 30-min Trip	Transit Routes within ½ mi of Avg Block Group
		Population data aggregated to ½ mi around transit	Jobs data aggregated to Transit Access Shed, weighted by households	Transit routes available within block group and ½ mi of its border

Population Near High-Frequency Transit[4] (Avg headway of 15 minutes or less in 24-hr period)

Around the Clock (24 hrs)	Full Day (7am-10pm)	Rush Hour (7-9am, 4-6pm)
0.0	2.1%	4.7%

Mobility Scores

Compact Neighborhood Score[4]	AllTransit Performance Score[4]	Transit Score[6]	Walk Score[5]
4.3	4.8	29.0	34.0
0 – 10	0 – 10	0 – 100	0 – 100

FUNDING SOURCES

- Sales Tax
- Fares
- Advertising
- Community Partners
- State/Federal Grants
- Transportation Development District (1% sales tax, real estate, and parking special assessment)

2016 KCATA/RideKC Budget[7]

Type	Operating	Capital
Fares	11.4%	0.0%
Local	70.2%	20.0%
State	0.3%	0.0%
Federal	13.9%	80.0%
Other	4.1%	0.0%

Dedicated Funding[8]

1971
State authorizes Kansas City to impose 0.5¢ sales tax for Kansas City transit, renewed in 2015

2003
Voters approve 0.38¢ sales tax for Kansas City transit support, renewed in 2009

MIAMI-DADE COUNTY, FLORIDA

AREA DETAILS

2.6 M	1,403	1.3 M	12th
County Population[1]	*Density*[1] *persons per sq mi*	*Employment*[2]	*Congestion Rank*[3]

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
85.8%	5.5%	2.2%	0.6%	1.3%	4.6%

Operating Agencies

Miami-Dade Transit (MDT), South Florida Regional Transportation Authority (SFRTA), Broward County Transit, and 27 Municipalities

Governance

Transit service in Miami-Dade County led by MDT; regional transportation planning coordinated by Miami-Dade TPO. Region working to offer fare payment integration with EasyPay Miami. Commuter rail service into Miami-Dade provided by SFRTA. MDT coordinates with BCT on Express Bus services.

TRANSIT OPTIONS

- Heavy Rail (MDT)
- Commuter Rail (SFRTA)
- PeopleMover (MDT)
- Local Bus (MDT)
- Bus Rapid Transit (MDT)
- Express Bus (MDT, Broward County Transit,)
- Demand-Response (MDT, Private)
- Vanpool (Private, Miami Lakes)
- Trolley/Circulator (Various municipalities)
- Intercity Higher Speed Rail (Private)
- Intercity Rail (Private)
- Intercity Bus (Private)
- Bike Share (Private)

MIAMI-DADE COUNTY, FLORIDA

SERVICE DETAILS

Average Commute Time to Work[1]

29.6 min	*Drive Alone*	**31.2** min	*Carpool*	**50.2** min	*Public Transportation*

Transit Access[4]

10%	23%	2.4 M	166.0 K	7
Commuters Who Use Transit	***% of Income for Avg Transportation Costs***	***Population Live within ½ mi of Transit***	***Jobs Accessible in 30-min Trip***	***Transit Routes within ½ mile of Avg Block Group***
		Population data aggregated to ½ mile around transit	*Jobs data aggregated to Transit Access Shed, weighted by households*	*Transit routes available within block group and ½ mile of its border*

Population Near High-Frequency Transit[4] *(Avg headway of 15 min or less in 24-hr period)*

24	***Around the Clock*** *24 hrs*	**5.2%**		***Full Day*** *7am-10pm*	**20.5%**	***Rush Hour*** *7-9am 4-6pm*	**40.5%**

Mobility Scores

Compact Neighborhood Score[4]	2.7	AllTransit Performance Score[4]	6.7	Transit Score[6]	39.0	Walk Score[5]	49.0
0 ● ○ ○ ○ ○ 10		0 ● ● ● ○ ○ 10		0 ◐ ○ ○ ○ ○ 100		0 ● ● ◐ ○ ○ 100	

FUNDING SOURCES

- ***Sales Tax: People's Transportation Plan (PTP)***
- ***Fares***
- ***Advertising***
- ***State/Federal Grants***
- ***Interagency Revenue***
- ***Local Option Gas Tax***
- ***Joint Development***

2016 MDT Budget[7]

Type	*Operating*	*Capital*
Fares	19.5%	0.0%
Local	57.3%	66.5%
State	6.3%	22.9%
Federal	13.4%	10.7%
Other	3.5%	0.0%

Dedicated Funding[8]

2002

Voters approve 0.5¢ Charter County Sales Surtax for PTP; PTP also shared with municipal transit projects

MINNEAPOLIS, MINNESOTA

AREA DETAILS

3.3 M	440	1.9 M	23rd
MSA Population[1]	*Density*[1] *persons per sq mi*	*Employment*[2]	*Congestion Rank*[3]

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
86.0%	4.8%	2.2%	1.0%	0.8%	5.2%

Operating Agencies

Metropolitan Council (Met Council), Metro Transit (branch of Met Council), Maple Grove Transit, Minnesota Valley Transit Authority, Plymouth Metrolink, SouthWest Transit, 12 cities

Governance

Transit coordinated through Met Council, Metro Transit, Transit Advisory Board (Federal funding), and (until 2017) Counties Transit Improvement Board (CTIB). Counties now control local funding for transit.

TRANSIT OPTIONS

- Light Rail (Metro Transit)
- Commuter Rail (Metro Transit)
- Local Bus (Metro Transit, Met Council)
- Commuter Bus (MVTA, PM, SWT)
- Bus Rapid Transit (Metro Transit)
- Free Ride Bus (Metro Transit)
- Demand-Response (Met Council)
- Vanpool (Met Council)
- Intercity Rail (Private)
- Bike Share (Private)

SERVICE DETAILS

Average Commute Time to Work[1]

24.5 min *Drive Alone* | **25.9** min *Carpool* | **40.4** min *Public Transportation*

Transit Access[4]

14%	16%	2.0 M	135.9 K	5
Commuters Who Use Transit	*% of Income for Avg Transportation Costs*	*Population Live within ½ mi of Transit*	*Jobs Accessible in 30-min Trip*	*Transit Routes within ½ mi of Avg Block Group*
		Population data aggregated to ½ mi around transit	*Jobs data aggregated to Transit Access Shed, weighted by households*	*Transit routes available within block group and ½ mi of its border*

Population Near High-Frequency Transit[4] (Avg headway of 15 min or less in 24-hr period)

Around the Clock (24 hrs.)	Full Day (7am-10pm)	Rush Hour (7-9am, 4-6pm)
7.3%	15.0%	24.8%

Mobility Scores

Compact Neighborhood Score[4]	AllTransit Performance Score[4]	Transit Score[6]	Walk Score[5]
6.9	8.5	58.0	69.0
0–10	0–100	0–100	0–100

FUNDING SOURCES

- *Sales Tax*
- *Fares*
- *Advertising*
- *Minnesota Twins*
- *Motor Vehicle Sales Tax*
- *Property Tax (Met Council & Regional Railroad Authorities)*
- *State/Federal Grants*

2016 Metro Transit Budget[7]

Type	Operating	Capital
Fares	24.2%	0.0%
Local	7.2%	55.9%
State	62.6%	3.4%
Federal	3.9%	33.0%
Other	2.1%	7.7%

Dedicated Funding[8]

2008

Transit funding bill passed permitting 7 metro counties to levy 0.04¢ sales tax, $20 tax on new car sales, overseen by CTIB

2017

Counties dissolve CTIB, levy separate local transit taxes from 0.04–0.5¢

ORLANDO, FLORIDA

(Orange, Osceola, Seminole counties)

AREA DETAILS

2.3 M	669	1.2 M	27th
MSA Population[1]	Density[1] persons per sq mi	Employment[2]	Congestion Rank[3]

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
90.0%	1.9%	0.5%	1.0%	1.3%	5.3%

Operating Agencies

Central Florida Regional Transportation Authority (LYNX), SunRail (Florida Department of Transportation), City of Sanford

Governance

Transit coordinated primarily through LYNX. SunRail coordinates with LYNX and City of Sanford. MetroPlan Orlando works with LYNX and SunRail for regional transit planning.

TRANSIT OPTIONS

- Commuter Rail (SunRail)
- Local Bus (LYNX)
- Commuter Bus (LYNX)
- Bus Rapid Transit/Circulator (LYNX)
- Trolley (I-Drive Improvement District, Sanford)
- On Demand (LYNX)
- Vanpool (LYNX)
- Bike Share (Private)
- Intercity Bus (Private)
- Intercity Rail (Private)

ORLANDO, FLORIDA

SERVICE DETAILS

Average Commute Time to Work[1]

27.1min *Drive Alone* | **28.0** min *Carpool* | **57.1** min *Public Transportation*

Transit Access[4]

7%	23%	1.1 M	85.6 K	5
Commuters Who Use Transit	% of Income for Avg Transportation Costs	Population Live within ½ mi of Transit	Jobs Accessible in 30-min Trip	Transit Routes within ½ mile of Avg Block Group
		Population data aggregated to ½ mi around transit	Jobs data aggregated to Transit Access Shed, weighted by households	Transit routes available within block group and ½ mi of its border

Population Near High-Frequency Transit[4] (Avg headway of 15 min or less in 24-hr period)

Around the Clock 24 hrs	Full Day 7am-10pm	Rush Hour 7-9am 4-6pm
0.0	0.7%	4.3%

Mobility Scores

Compact Neighborhood Score[4]	AllTransit Performance Score[4]	Transit Score[6]	Walk Score[5]
5.9	7.1	33.0	42.0

FUNDING SOURCES

- Fares
- Advertising
- Contract Services
- Investment Income
- State/Federal Grants
- General Fund via Property Tax

2016 LYNX Budget[7]

Type	Operating	Capital
Fares	23.8%	0.0%
Local	47.2%	16.8%
State	14.3%	0.0%
Federal	12.0%	83.2%
Other	2.7%	0.0%

Dedicated Funding[8]

LYNX does not receive revenue from sales tax or any other dedicated streams of funding

PHILADELPHIA, PENNSYLVANIA

AREA DETAILS

4.0 M	886	2.8 M	22nd
MSA Population[1]	*Density[1] persons per sq mi*	*Employment[2]*	*Congestion Rank[3]*

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work@ Home
76.7%	12.3%	4.7%	0.8%	0.8%	4.7%

Operating Agencies

Southeastern Pennsylvania Transportation Authority (SEPTA), New Jersey Transit (NJT), Port Authority Transit Corporation (PATCO)

Governance

SEPTA primarily coordinates transit through 4 internal divisions: City Transit Division, Victory Division, Frontier Division, Regional Rail Division. Divisions created through procurement of private agencies and offers seamless integration.

TRANSIT OPTIONS

- Streetcar (SEPTA)
- Commuter Rail (SEPTA, PATCO, NJT)
- Suburban Rail (SEPTA)
- Local Bus (SEPTA)
- Trackless Trolley (SEPTA)
- Commuter Bus (NJT, PATCO)
- Demand-Response (SEPTA)
- Vanpool (Private)
- Intercity Rail (Private)
- Bike Share (Private)
- Circulator (Non-Profit)
- Intercity Bus (Private)
- Water Ferry (Private)

SERVICE DETAILS

Average Commute Time to Work[1]

27.7 min *Drive Alone* | **28.7** min *Carpool* | **47.7** min *Public Transportation*

Transit Access[4]

28%	15%	4.1 M	154.6 K	5
Commuters Who Use Transit	% of Income for Avg Transportation Costs	Population Live within ½ mi of Transit	Jobs Accessible in 30-min Trip	Transit Routes within ½ mile of Avg Block Group
		Population data aggregated to ½ mi around transit	Jobs data aggregated to Transit Access Shed, weighted by households	Transit routes available within block group and ½ mi of its border

Population Near High-Frequency Transit[4] (Avg headway of 15 min or less in 24-hr period)

Around the Clock (24 hrs)	Full Day (7am-10pm)	Rush Hour (7-9am, 4-6pm)
14.4%	22.8%	30.4%

Mobility Scores

Compact Neighborhood Score[4]	AllTransit Performance Score[4]	Transit Score[6]	Walk Score[5]
8.3	9.0	66.0	79.0
0 ● ● ● ● ○ 10	0 ● ● ● ● ◐ 10	0 ● ● ● ○ ○ 100	0 ● ● ● ◐ ○ 100

FUNDING SOURCES

- **State** (Turnpike, Motor Vehicle Fees & Fines, Oil Company Franchise Fee, Tire Fee/Rental Fee/Lease Tax, Sales & Use Tax, Lottery)
- **Fares**
- **Advertising**
- **State/Federal Grants**
- **Investment Income**

2016 SEPTA Budget[7]

Type	Operating	Capital
Fares	36.6%	0.0%
Local	6.7%	9.2%
State	47.9%	56.2%
Federal	0.6%	34.6%
Other	2.9%	0.0%

Dedicated Funding[8]

1991
State establishes funding through $1 tire fee, 3% vehicle lease tax, $2 vehicle rental fee

2011
Public Transportation Trust Fund dedicates 4.4% of sales tax, Turnpike funds, lottery

SAN FRANCISCO, CALIFORNIA

AREA DETAILS

4.5 M	1,847	2.3 M	3rd
MSA Population[1]	*Density[1] persons per sq mile*	*Employment[2]*	*Congestion Rank[3]*

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
69.1%	16.5%	4.5%	2.0%	1.7%	6.1%

Operating Agencies

26 operators in Bay Area; 7 offer 96% of services including Bay Area Rapid Transit (BART), San Francisco Municipal Transportation Agency (MUNI/SFMTA), Alameda-Contra Costa Transit District (AC Transit), Santa Clara Valley Transportation Authority (VTA), Caltrain, SamTrans, Golden Gate Bridge Highway and Transportation District

Governance

Bay Area Metropolitan Transportation Commission (MTC) is MPO, coordinating body, works to integrate system.

TRANSIT OPTIONS

- Heavy Rail (BART)
- Commuter Rail (ACE, Caltrain, Capitol Corridor, SMART)
- Streetcar (MUNI)
- Trolley (MUNI)
- Intercity Rail (Private)
- Local Bus (AC Transit, Golden Gate, MUNI, VTA, Caltrain, SamTrans)
- Commuter Bus (AC Transit, & 6 other agencies)
- Cable Car (MUNI)
- Light Rail (MUNI, VTA)
- Ferry (Golden Gate)
- Intercity Bus (Private)
- Demand-Response (AC Transit, Golden Gate, MUNI, VTA, SamTrans)
- Vanpool (Private)
- Bike Share (Private)
- Monorail (BART)

SERVICE DETAILS

Average Commute Time to Work[1]

28.9 min	*Drive Alone*	**32.8** min	*Carpool*	**48.0** min	*Public Transportation*

Transit Access[4]

38%	12%	4.0 M	280.8 K	12
Commuters Who Use Transit	*% of Income for Avg Transportation Costs*	*Population Live within ½ mi of Transit*	*Jobs Accessible in 30-min Trip*	*Transit Routes within ½ mi of Avg Block Group*
		Population data aggregated to ½ mi around transit	*Jobs data aggregated to Transit Access Shed, weighted by households*	*Transit routes available within block group and ½ mi of its border*

Population Near High-Frequency Transit[4] *(Avg headway of 15 min or less in 24-hr period)*

Around the Clock (24 hrs)	0.0	Full Day (7am-10pm)	32.7%	Rush Hour (7-9am, 4-6pm)	44.6%

Mobility Scores

Compact Neighborhood Score[4]	8.8	AllTransit Performance Score[4]	9.6	Transit Score[6]	80.0	Walk Score[5]	86.0

FUNDING SOURCES

- *Sales Tax*
- *Fares*
- *Property Tax*
- *State (Transit Assistance, Low Carbon Transit Operations, Measure B)*
- *Parking Fee/Citation*
- *Investment Income*
- *Advertising*
- *Transportation Improvement Fee*
- *State/Federal Grants*

2016 MUNI Budget[7]

Type	Operating	Capital
Fares	21.2%	0.0%
Local	68.4%	27.1%
State	3.9%	10.0%
Federal	0.0%	60.1%
Other	6.5%	2.8%

Dedicated Funding[8]

1971
State passes law allowing each county to establish 0.04¢ sales tax, sales tax on diesel fuel

1977
State passes law allowing 0.5 ¢ sales tax for transit in Bay Area counties (multiple increases passed in subsequent years)

SEATTLE, WASHINGTON

AREA DETAILS

3.6 M	625	1.9 M	7th
MSA Population[1]	*Density*[1] *persons per sq mi*	*Employment*[2]	*Congestion Rank*[3]

MODE SHARE[1]

Car	Transit	Walk	Bike	Taxi	Work @ Home
79.0%	9.2%	3.8%	1.1%	1.2%	5.7%

Operating Agencies

King County Department of Transportation (Metro Transit), Sound Transit, Community Transit, Pierce Transit, Everett Transit, Kitsap Transit, City of Seattle, Washington State DOT (WSDOT)

Governance

Transit primarily coordinated through Sound Transit and County operators, including King County. System integrated and offers seamless experience with ORCA card.

TRANSIT OPTIONS

- Light Rail (Sound Transit)
- Commuter Rail (Sound Transit)
- Local Bus (Metro Transit, Community Transit, Pierce Transit, Everett Transit)
- Monorail (Sound Transit, City of Seattle)
- Ferry (Metro Transit, WSDOT, Kitsap Transit)
- Commuter Bus (Sound Transit)
- Demand-Response (Metro Transit, SSSC, Everett Transit, Kitsap Transit)
- Vanpool (Metro Transit, Community Transit, Pierce Transit, Kitsap Transit)
- Streetcar (Sound Transit, Metro Transit, City of Seattle)
- Bike Share (Private)
- Trolley (Metro Transit)
- Circulator (Private)
- Water Taxi (Metro Transit)
- Bus Rapid Transit (Metro Transit)
- Intercity Buses (WSDOT, Private)

SERVICE DETAILS

Average Commute Time to Work[1]

26.7 min	*Drive Alone*	**32.3** min	*Carpool*	**46.4** min	*Public Transportation*

Transit Access[4]

14%	16%	2.6 M	169.6 K	8
Commuters Who Use Transit	*% of Income for Avg Transportation Costs*	*Population Live within ½ mi of Transit*	*Jobs Accessible in 30-min Trip*	*Transit Routes within ½ mi of Avg Block Group*
		Population data aggregated to ½ mi around transit	*Jobs data aggregated to Transit Access Shed, weighted by households*	*Transit routes available within block group and ½ mi of its border*

Population Near High-Frequency Transit[4] *(Avg headway of 15 min or less in 24-hr period)*

Around the Clock (24 hrs)	Full Day (7am-10pm)	Rush Hour (7-9am, 4-6pm)
0.0	6.0%	7.5%

Mobility Scores

Compact Neighborhood Score[4]	AllTransit Performance Score[4]	Transit Score[6]	Walk Score[5]
7.0	8.1	60.0	73.0
0 – 10	0 – 10	0 – 100	0 – 100

FUNDING SOURCES

- *Sales Tax*
- *Fares & Tolls*
- *Property Tax*
- *State Gas Tax*
- *Rental Car Tax*
- *Vehicle License Renewal*
- *Investment Income*
- *State/Federal Grants*
- *Advertising*

2016 King County Metro Transit Budget[7]

Type	Operating	Capital
Fares	30.4%	1.9%
Local	51.0%	64.1%
State	1.2%	0.9%
Federal	6.9%	30.1%
Other	10.6%	3.0%

Dedicated Funding[8]

1972
Voters approve 0.3% sales tax for Metro Transit, increased to 0.6% in 1980

1996
Voters approve 0.4% sales tax dedicated to expanding regional transit, increased to 0.9% in 2008

Comparisons

According to the Transportation Research Board, there are five elements a community should demonstrate for a transit-supportive environment—density, diversity, design, destination accessibility, and distance to transit. This peer review reveals the extent of these factors in each of the 13 metropolitan profiles, highlighting key demographic, built environment, and transit system characteristics. These profiles are not exact comparisons to Broward, but they reveal elements for how transit can operate with success in South Florida. This section describes some of these key comparisons and demonstrates how Broward compares with other metropolitan systems.

Population Characteristics

As displayed in **Table 1**, Broward's population estimate is about 1.8 million, second to last of the area's profiled. Table 1 also provides the estimated population density for the metropolitan areas in persons per square mile (ppsm). This calculation is determined using the ACS population and land area estimates.

Table 1: Population and Population Density[1]

Metropolitan Area	Population	Density (ppsm)
San Francisco	4,577,530	1,847
Broward	1,863,780	1,544
Miami-Dade County	2,664,418	1,403
Boston	4,302,566	1,234
Chicago	8,656,303	1,203
Philadelphia	4,076,378	886
Orlando	2,328,508	669
Atlanta	5,612,777	647
Seattle	3,671,095	625
Minneapolis	3,360,829	440
Charlotte	2,019,407	399
Denver	2,752,056	330
Kansas City	1,214,846	167

According to research by Ewing and Cervero, higher population densities have a positive influence on transit ridership. Of the 13 profiles, Broward, at 1,544 ppsm, is comparable to areas with well-established transit systems, such as San Francisco, Miami-Dade County, and Boston.

A successful transit-supportive environment is also linked to the ability to effectively connect high numbers of people to employment. To accomplish this, users must be able to conveniently access transit options. **Table 2** shows the area population located within a half mile of transit. Broward has a population of approximately 1.4 million located in proximity to transit and ranks comparably to Denver (1.6 million) and Orlando (1.1 million).

Table 2: Population Living within ½ Mile of Transit[4]

Metropolitan Area	Population
Chicago	6,488,778
Philadelphia	4,103,603
San Francisco	4,024,265
Boston	3,002,335
Seattle	2,649,303
Miami-Dade County	2,460,243
Minneapolis	2,053,748
Atlanta	1,782,834
Denver	1,616,757
Broward	1,479,186
Orlando	1,100,207
Kansas City	838,343
Charlotte	*Unavailable*

Table 3 shows the number of jobs accessible in each area by a 30-minute transit commute on average for households. Within this measure, Broward is significantly (20%) lower than the next highest area, Denver (135,000 jobs) and significantly higher (21%) than the next lower area, Orlando (85,000 jobs). Broward also has more jobs accessible within a 30-minute transit commute than Atlanta (61,000 jobs), Charlotte (50,000 jobs), and Kansas City (47,000 jobs).

Table 3: Jobs Accessible within 30-Minute Transit Commute[4]

Metropolitan Area	Number of Jobs
San Francisco	280,899
Boston	216,485
Chicago	207,843
Seattle	169,640
Miami-Dade County	166,010
Philadelphia	154,662
Minneapolis	135,999
Denver	135,686
Broward	108,115
Orlando	85,613
Atlanta	61,203
Charlotte	50,856
Kansas City	47,643

High-frequency transit options are important for the usefulness of the system as it relates to conveniently moving people to and from employment during peak hours. A system can offer this service 24 hours per day, during core business hours, or during rush hour periods. Rush hours for the purpose of this review are 7:00–9:00 AM and 4:00–6:00 PM. According to AllTransit, high frequency transit refers to services that have average headways of 15 minutes or less in a 24-hour period. **Table 4** provides information on the percentage of the population of each peer area near high-frequency transit service during rush hours.

Table 5 details the selected areas ranked by the percent of commuters using mass transit. Commuters refer to the population traveling for work purposes. Throughout all areas, automobile use is the dominant mode for commuting; however, in some peer areas, a considerable percentage of commuters use transit.

Table 4: Population near High-Frequency Transit during Rush Hour[4]

Metropolitan Area	% of Population
San Francisco	44.6%
Miami-Dade County	40.5%
Chicago	31.3%
Boston	30.4%
Philadelphia	30.4%
Minneapolis	24.8%
Denver	13.7%
Broward	9.6%
Atlanta	8.5%
Seattle	7.5%
Charlotte	7.1%
Kansas City	4.7%
Orlando	4.3%

Table 5: Commuters Using Transit[4]

Metropolitan Area	% of Commuters
San Francisco	38%
Boston	31%
Chicago	30%
Philadelphia	28%
Seattle	14%
Minneapolis	14%
Atlanta	12%
Denver	11%
Miami-Dade County	10%
Orlando	7%
Broward	6%
Charlotte	4%
Kansas City	4%

It is interesting to note that of the six areas with a commuter transit mode share (percentage of commuters using transit as their mode of transportation to work) of 14% or higher, all but one also ranks within the top areas that have the highest percentage of population near high-frequency transit during rush hour. The exception is Seattle, which has a smaller percentage of its population near high-frequency transit and still achieves a commuter transit mode share of 14%. More research is necessary to understand how Seattle achieves this higher mode share for transit, although it could be explained by parking policies in employment areas and accessibility to high-frequency transit services.

Within these areas, the average one-way commute time for automobiles is 25–30 minutes; for public transit, it is 48 minutes. **Table 6** presents a comparison of average commute times for transit use in the selected areas. Broward has a higher average transit commute time than the combined average of the peer areas, at 52.9 minutes. It is difficult to draw conclusions from this specific indicator, as many factors may influence transit travel time, including the operating conditions of the transit vehicle (e.g., in an exclusive lane or in mixed traffic with other vehicles) and the distance traveled.

Table 6: Average Transit Travel Time to Work[1]

Metropolitan Area	Minutes *(Travel to Work)*
Minneapolis	40.4
Kansas City	41.0
Seattle	46.4
Boston	46.6
Charlotte	47.1
Philadelphia	47.7
San Francisco	48.0
Denver	48.5
Chicago	49.6
Miami-Dade County	50.2
Broward	52.9
Atlanta	53.9
Orlando	57.1

A comparison of average percent of income spent on housing and transportation is shown in **Table 7** (sorted from total lowest to total highest). Transportation costs include auto ownership, auto usage, and transit costs and are second to housing costs in terms of how much the public spends; they are linked to an area's affordability and efficiency in moving people through the region. The benchmark for household income that should be spent on housing and transportation, as determined by the Center for Neighborhood Technology (CNT), is 45%—30% for housing and 15% for transportation. As shown, Broward's total housing and transportation costs are the highest of all peers (63%), with transportation cost at 24%. Interestingly, only three peer areas—Boston, San Francisco, and Philadelphia—meet CNT's benchmark of transportation spending being equal to or less than 15% of household income. For housing and transportation costs together, seven peer areas fall within CNT's benchmark of 45%, even though the transportation costs exceed the recommended 15%, which is due to housing costs in those areas being less than the 30% of household income benchmark.

Table 7: Average Percent of Income Spent on Transportation and Housing[4]

Metropolitan Area	Transportation	Housing	Housing + Transportation
Philadelphia	15%	21%	36%
Boston	12%	26%	38%
Minneapolis	16%	22%	38%
San Francisco	12%	29%	41%
Denver	18%	24%	42%
Chicago	16%	27%	43%
Kansas City	21%	21%	44%
Seattle	16%	30%	46%
Atlanta	19%	29%	48%
Charlotte	22%	29%	51%
Orlando	23%	30%	53%
Miami-Dade County	23%	37%	60%
Broward	24%	39%	63%

City design is an important influence and indicates whether the environment demonstrates walkable characteristics or an effective street network. For this review, the Compact Neighborhood Score from the CNT H+T Fact Sheet for each area and Walk Score (from Redfin) were used. The Compact Neighborhood Score looks at household density, block size, block perimeter, and intersection density, with scores of 1–10 (1= low density and limited walkability). Walk Score determines ease of accessing amenities and locations via the street by walking, with scores of 0–100 (100 suggesting the least need for automobile use).

Table 8 shows Broward's rank for these two measures, indicating that it has the lowest Compact Neighborhood Score of the peer areas, followed closely by Miami-Dade County. Walk Score provides scores for cities and communities within the area, which were averaged to provide a score of 42 for Broward and 49 for Miami-Dade County (see **Appendix B)**. Walk Score considers amenities (e.g., grocery stores) within walking distance in addition to factors considered in the Compact Neighborhood Score. Broward does not score well for compactness, but it fares better when availability of amenities is included. The lower score for compactness could have a correlation to lower transit use, as people who have an alternative to using transit may not be willing to walk to access it.

CNT and Redfin also provide similar tools for transit. CNT's H+T Fact Sheets provides an AllTransit Performance Score, which is an assessment of access to public transit based on a scale of 1–10 (10 = highest accessibility). Redfin's Transit Score tool looks at how useful nearby transit routes are for connecting to amenities and key destinations—proximity of stop, frequency of route, and type of route available. Scores are not available at the county level, so scores for cities and communities in Broward were averaged. Like the Compact Neighborhood Score and the Walk Score, the Redfin index includes connections to amenities, whereas the AllTransit Performance Score is focused solely on employment access. **Table 9** shows the results for the selected areas, sorted by the AllTransit Performance Score. Broward is in the lower quarter of the peer areas for this indicator for both data tools.

Table 8: Compact Neighborhood Score[4] and Walk Score[5]

Metropolitan Area	Compact Neighborhood Score	Walk Score
Boston	9.4	81
San Francisco	8.8	86
Philadelphia	8.3	79
Chicago	8.1	78
Seattle	7.0	73
Minneapolis	6.9	69
Denver	6.5	61
Atlanta	6.4	49
Orlando	5.9	42
Charlotte	5.0	26
Kansas City	4.3	34
Miami-Dade County	2.7	49
Broward	2.1	42

Table 9: AllTransit Performance[4] and Redfin[6] Transit Scores

Location	AllTransit Performance Score	Redfin Transit Score
San Francisco	9.6	80
Boston	9.4	72
Chicago	9.1	65
Philadelphia	9.0	66
Minneapolis	8.5	58
Seattle	8.1	60
Denver	7.9	48
Atlanta	7.9	46
Orlando	7.1	33
Miami-Dade County	6.7	39
Broward	5.1	31
Kansas City	4.8	29
Charlotte	4.2	27

A final comparison is public transportation spending per capita. Transportation investment is important for the growth of systems and is another way to compare the impact of transit in metropolitan areas, specifically related to economic growth. For this comparison, the total operating and capital costs were combined and divided by the selected area populations. **Table 10** shows that Broward is in the lower quarter of the peer group. This indicator is also challenging to interpret, as higher per capita spending does not necessarily equate to expansion of service. For example, older systems may require greater investment in operations and maintenance compared to newer systems, whereas a lower value may indicate efficiency or lack of available funding. Therefore, the benefit of this indicator is as a monitoring tool. With the passage of the Penny for Transportation sales tax, the per-capita spending on transportation is expected to increase for Broward.

Table 10: Public Transportation Spending per Capita[8]

Location	Per Capita
Boston	$597
Denver	$471
Philadelphia	$453
Seattle	$269
San Francisco	$260
Miami-Dade County	$251
Charlotte	$219
Chicago	$214
Minneapolis	$176
Atlanta	$138
Kansas City	$82
Broward	$81
Orlando	$69

As shown by these comparisons, there is room for improvement in transit in the community. Transit is not viewed as an attractive alternative for many commuters, with only 6% of the workforce using transit to travel to work and only 10% of the population having access to high-frequency service. Compounding this, Broward has low Walk and Transit scores, a high percentage of income spent on transportation costs, and low overall funding for transit.

This review identifies areas where there are opportunities for improvement in Broward's transit system. The foundation of a diverse transit system with 75% of the population living within ½ mile of transit can be built upon, given the public support for transit, as shown by the approval of the Penny for Transportation sales tax. Some measures, such as the Compact Neighborhood and Walk scores and the Housing + Transportation Index require longer-term strategies and should not be expected to show significant improvement as a result of the Penny for Transportation tax.

Governance and Funding

This peer review also analyzed the role of governance and funding in transit. This section highlights how these two factors play into the overall operation and transit growth in the profile areas.

Transit systems in urban areas have evolved in accordance with context and unique area histories. For this reason, there is no single framework or structure for how successful systems work; success is defined by each community's individual needs. A transit system with a supportive governance structure, defined here as one that promotes cooperation among internal and external stakeholders, includes a diverse funding structure and works collaboratively with other agencies, often resulting in a transit system that continues to operate and grow with the community's needs.

Some areas have developed governance systems through the convergence of historic private/non-profit transit services agencies, some governance was developed through centralized players, and some systems developed around the introduction of new services. The governance for Broward is a combination of mode-specific agencies, including BCT and SFRTA. BCT offers

bus service and coordinated municipal shuttle/circulator services. Commuter Rail services are offered by Tri-Rail service operated by SFRTA. In addition, a commuter/express bus service is coordinated with Miami-Dade Transit.

Funding for transit in Broward comes from a variety of sources. SFRTA depends on a combination of State and County funding in addition to support from the Federal Transit Administration. Express buses depend on managed lane toll revenues. Broward MPO works with BCT on TIP funding and in providing long range planning of the transit system using Federal and State pass-through funds. In November 2018, Broward voters approved a 1% sales surtax for transportation that may be used for both capital and operating expenses for transit as well as for other modes of transportation.

The following subsection highlights other governance and partnership approaches from around the United States, providing a full range of local governance agreements.

San Francisco

The San Francisco Bay Area encompasses 9 counties and is served by 26 transit providers, offering various modes and routes with some overlapping services. Most service provided is through the "Big 7," which includes BART, MUNI, AC Transit, VTA, Caltrain, SamTrans, and Golden Gate Bridge Highway & Transportation District (GGBHTD). The extensive network has been successful in providing strong regional and local connections, frequency, and convenience for users.

The Metropolitan Transportation Commission (MTC) is the primary transit coordinating body in the region and works with each agency to plan a regional

system, finance projects, and ensure cohesion of transit. In terms of integration. MTC also works to provide an easy system for users with a regional fare card (The Clipper) and standardized signage at major transit centers.

Minneapolis

In Minneapolis, transit is offered primarily through Metro Transit, a division of the Metropolitan (Met) Council. Metro Transit provides service to the five metropolitan counties in the area. Within the counties, selected suburban municipalities can provide their own service, which seven have elected to do. Additionally, each county participates in a regional rail authority that works with Metro Transit to offer services. Transit systems are integrated through a regional fare system.

As a result of passing a regional sales tax in 2008, the Counties Transit Improvement Board (CTIB) was created to assist with the coordination of transit and distribution of this new resource. CTIB comprised representatives from each county and worked with Met Council to ensure a regional system was developed that was reflective of local needs; in 2018, CTIB was dissolved due to disagreements between the counties on how to best plan and operate the system. CTIB was unable to create a balanced urban and suburban funding system. Currently, funding for the system is coordinated through the counties and independently based on tax receipts.

Kansas City

Transit in Kansas City is offered by four providers, including KCATA Indebus, Johnson County Transit, Unified Government, and the Kansas City Streetcar Authority, and encompasses two states and seven counties.

Transit services are coordinated under the umbrella initiative "RideKC," which seeks to provide a seamless experience for users, including regional fare, integrated systems, and a standardized brand. A RideKC Advisory Committee works to establish a communications platform for transit agencies to work together along with stakeholders and customers. In addition to this initiative, transit is also planned through the Mid-America Regional Council and the Regional Transit Coordinating Council.

Funding

Although local demographic and development factors differ, a key element is common across all examples of transit system growth and development—a dedicated funding source. As noted in this review, agencies are using various tools and mechanisms to fund transit system needs. Recurring options include taxes, vehicle fees, value capture, joint development, and other local fees.

As communities demand more and better public transportation, and to offset the reduction in fuel tax revenues and rising demand for additional resources for transit proposals, transit operators and local governments are increasingly turning to voter referenda, seeking permission to generate the needed new revenues. Most often, a sales tax increase is desired, but other sources include vehicle registration fees, property taxes, real estate sales taxes, local income or payroll taxes, or impact fees levied on new development.

Funding Capital and Operating Costs

Sales tax revenue for transit can be used for both operating and capital purposes. Many of the agencies reviewed allow for flexibility between these two budget areas. For example, the 0.5% sales tax dedicated to CATS in North Carolina must be spent only on the financing, construction, operation, and maintenance of local public transportation systems. This broad approach is similar to MetroTransit in Minnesota, where the 0.5% sales tax can be used for any or all capital costs of transportation projects or improvements, the Safe Routes to School program, and the operating and capital costs of transit projects or improvements and general operating costs. In some cases, based on State/local laws, the ability to use sales tax revenues with flexibility between operating and capital costs is restricted or even prohibited. For example, in Atlanta, MARTA was mandated to allocate the revenue collected from the 1% sales tax for 50% capital and 50% operating costs; however, this mandate was removed in 2015 to provide greater funding flexibility to MARTA.

Florida has two unique sales tax options available to local governments to support local transportation needs. Both require majority approval through a countywide citizen referendum with a maximum rate of 1%, and each has limitations, restrictions, and eligibility requirements related to transportation spending. Based on Florida Statutes, the Local Government Infrastructure Surtax can be used only for the financing, planning, and construction of capital infrastructure, including multimodal projects. The Charter County and Regional

Transportation System Surtax can be used for the planning, development, construction, operation, and maintenance of transit systems, roads, and bridges.

In South Florida, Miami-Dade County has levied the Charter County and Regional Transportation System Surtax at the rate of 0.5% and has executed interlocal agreements with its municipalities for the allocation of tax revenues. Based on these agreements, the County must distribute 20% of tax revenues to its local governments, which are required to spend 20% of those revenues for public transportation purposes. Beginning in July 2019, Miami-Dade County must use revenues from the Charter County and Regional Transportation System Surtax only for the following purposes:

- Planning, design, engineering, or construction of fixed guideway rapid transit systems
- Acquisition of rights-of-way for fixed guideway rapid transit system or dedicated facilities for autonomous vehicles (provided the owner of the right-of-way is a willing seller)
- Payment of principal and interest on bonds previously issued related to fixed guideway rapid transit systems or bus systems
- As security by the governing body of Miami-Dade County to refinance existing bonds or to issue new bonds for the planning, design, engineering, or construction of fixed guideway rapid transit systems or bus systems

Broward County approved a similar Charter County and Regional Transportation System Surtax on November 6, 2018, known as the Penny for Transportation. Approximately 70% of the funds will be used for transit upgrades such as enhanced bus service on selected corridors, bus stop upgrades, and new local bus service. The remaining 30% is proposed to be used for a variety of transportation projects such as sidewalks, bike lanes, roadway improvements, and intersection upgrades. The County has agreed to provide a minimum of 10% of the annual sales tax revenues to the cities in Broward for their transportation needs.

Summary and Next Steps

The document provided profiles for selected areas of the United States that are either comparable to Broward (pre-sales tax) or potential ideals for Broward's overall system. This information indicates that there is room for improvement in both transit services, supporting land use and urban design. Compared to its peers, Broward does not rank well in the following areas:

- Commuters using transit
- Percentage of income spent on transportation costs
- Spending on public transportation per capita, and
- Compact design and walkability.

The foundation of a Broward's system can be built upon, given the public support for transit, as shown by the approval of the Penny for Transportation sales tax. Measures such spending on public transportation per capita can be improved through the sales tax measure. However, others such as the Compact Neighborhood and Walk scores and the Housing + Transportation Index require longer-term strategies and policies and should not be expected to show significant improvement as a result of the Penny for Transportation sales tax.

The review of governance in other areas highlights the need for regional collaboration. Each of the areas profiled in this section offers a regional fare card that simplifies travel in their areas. Currently only Miami-Dade and SFRTA have interoperable fare cards that allow riders to use a single payment method for both systems. Broward County Transit has led a regional fare interoperability study for the past few years, seeking to implement a similar solution using mobile ticketing. This program proposes to expand the regional fare card/mobile ticketing into Broward so that riders on any of the tri-county public transportation services can use a single fare card or mobile ticket in Broward and Miami-Dade.

With the recent passage of the Penny for Transportation sales tax, Broward is now well-situated among its peers for a dedicated local funding source. As this document is updated, it may be interesting to include updates on the allocation of

the sales tax funds by project type, such as transit, roadway, bicycle, and pedestrian. The ability to leverage local funds to obtain additional state and federal funds may also be of interest for future updates to this report.

As previously stated, the primary purpose of this document is to establish a baseline for Broward prior to system expansion that is planned under the Penny for Transportation legislation. The indicators identified in the Area Profiles section are intended to be revisited on a regular basis (each MTP update, for example) to monitor how the changes in Broward's transportation system influence its rankings relative to the peers identified. Future versions of this document will serve to track Broward's progress in improving its transit system.

APPENDIX A:
Data Sources & References

Data Sources

Data sources for this report were collected and synthesized using information from both public and private sector entities to aid in understanding local and regional context, transportation issues, and how other comparable markets fund and operate their public transportation systems. The broad set of data sources used herein include the following.

Source 1: American Community Survey

SOURCE DETAILS	
Source:	United States Census Bureau
Scale:	Metropolitan Statistical Area (MSA) and County Level
Year:	2016
Link:	http://factfinder.census.gov

To provide demographic, density, and modal use information, the American Community Survey (ACS) was accessed through the U.S. Census Factfinder tool. It is an ongoing survey that provides information annually regarding the U.S. and its citizens and provides information on jobs and occupations, educational attainment, veterans, whether people own or rent their homes, and other topics. For this peer review, population estimates were reported at the MSA or County level, consistent with the service area of the local transit operator.

Source 2: Bureau of Labor Statistics

SOURCE DETAILS	
Source:	United States Department of Labor
Scale:	Metropolitan Area Employment
Year:	2015
Link:	http://www.bls.gov/sae

Employment information was collected from the Bureau of Labor Statistics. The Current Employment Statistics (CES) program produces detailed industry estimates of employment, hours, and earnings of workers on non-farm payrolls. CES estimates labor statistics for state and metropolitan areas for all 50 states, the District of

Columbia, Puerto Rico, the Virgin Islands, and about 450 metropolitan areas and divisions.

Source 3: Texas Transportation Institute, *2015 Urban Mobility Scorecard*

SOURCE DETAILS	
Source:	INRIX
Scale:	Metropolitan Area
Year:	2017
Link:	http://inrix.com

Congestion information was collected from the Texas Transportation Institute's *2015 Urban Mobility Scorecard*, which provides congestion estimates for 471 urban areas in the U.S. TTI uses speed data collected from INRIX and defined metropolitan statistical areas established by the U.S. Census. These areas are ranked by the yearly hours of delay the average commuter spent in congestion in 2014. As the rankings use MSAs, the ranking for Broward and Miami-Dade are the same as they, along with Palm Beach County, comprise the Miami MSA. Future updates to this measure will have to rely on the INRIX Global Traffic Scorecard, which uses a different methodology and may not provide data for all the peers included in this report.

Source 4: Center for Neighborhood Technology

SOURCE DETAILS	
Source:	The Center for Neighborhood Technology
Scale:	Varies
Year:	2015
Link:	https://www.cnt.org/

The Center for Neighborhood Technology (CNT) provides several data resources used herein. CNT has conducted extensive transit-related research for more than 30 years and has partnered with agencies such as the U.S. Department of Housing and Urban Development.

Transit access information was collected from AllTransit, a partnership between TransitCenter and CNT. Transit access is measured through General Transit Feed Specification (GTFS) data collected and created by CNT. In addition to the publicly-available GTFS data provided by transit agencies, CNT developed GTFS structured datasets using online transit maps and schedules. In many cases, CNT has directly contacted transit agencies to obtain more specific information on stop locations and

schedules. All GTFS data are merged into a proprietary dataset known as AllTransit. A companion online tool facilitates the collection, normalization, and aggregation of GTFS data to analyze fixed-route transit service. CNT has station, stop, and frequency data for bus, rail, and ferry service for all major agencies in regions with populations greater than 100,000 as well as many smaller regions and agencies.

Housing and transportation costs were collected from the Housing + Transportation Affordability Index. Additional information about transit access and walkability was obtained from the H+T Fact Sheets for each peer area. Due to limits on the geographies available, these data are not necessarily a one-to-one comparison of the other measures, as it is not possible to define a geography that matches the MPO planning area in all cases. The information for Broward and Miami-Dade is at the county level, whereas all other areas are provided at the municipal level.

Source 5: Walk Score

SOURCE DETAILS	
Source:	Redfin
Scale:	City
Year:	2017
Link:	https://www.walkscore.com/methodology.shtml

Walk Score measures the walkability of any address using a patented system. For each address, Walk Score analyzes hundreds of walking routes to nearby amenities, and points are awarded based on the distance to amenities in each category. Amenities within a five-minute walk (0.25 miles) are given maximum points. A decay function is used to give points to more distant amenities, with no points given after a 30-minute walk.

Walk Score also measures pedestrian friendliness by analyzing population density and road metrics such as block length and intersection density. Data sources include Google, Education.com, Open Street Map, the U.S. Census, Localize, and places added by the Walk Score user community.

Walk Score normalizes the raw scores to produce a Walk Score range from 0 to 100, with 0 symbolizing maximum car dependence and 100 symbolizing an area where a car is not needed to accomplish daily travel needs.

Source 6: Transit Score

SOURCE DETAILS	
Source:	Redfin
Scale:	City
Year:	2017
Link:	https://www.walkscore.com/transit-score-methodology.shtml

The Transit Score algorithm calculates a score for a specific point by summing the relative "usefulness" of nearby routes. Redfin defines usefulness as the distance to the nearest stop on the route, the frequency of the route, and type of route. Transit Score works in any city where the transit agency publishes data in the GTFS format. To calculate a raw Transit Score, Redfin sums the value of all the nearby routes. The value of a route is defined as the service level (frequency per week) multiplied by the mode weight (heavy/light rail is weighted 2x, ferry/cable car/other are 1.5x, bus is 1x) multiplied by a distance penalty. The distance penalty calculates the distance to the nearest stop on a route and then uses the same distance decay function as the Walk Score algorithm. The raw Transit Scores are normalized in a Transit Score range from 0 to 100, with 0 symbolizing minimal transit and 100 symbolizing high-quality transit.

Source 7: National Transit Database Transit Agency Profiles

SOURCE DETAILS	
Source:	Federal Transit Administration
Scale:	Metropolitan Statistical Area
Year:	2016
Link:	www.transit.dot.gov/ntd/transit-agency-profiles

Operating and capital budget information was collected through the National Transit Database (NTD) Transit Agency Profiles webpage. The NTD provides profiles by report year for all agencies filing an Annual NTD Report. Profiles contain general agency information, financial and modal data, and performance and trend indicators.

Source 9: Agency Annual Financial Reports

SOURCE DETAILS	
Source:	Area Agency
Scale:	Metropolitan Statistical Area
Year:	2016
Link:	Transit Agency Webpages

For additional information on the sources of funding for each agency, Annual Financial Reports for 2016 were reviewed. These reports are required each year and include a comprehensive annual financial report and budget as well as sources of revenue.

Other Reference(s)

Ewing, R. and R. Cervero. (2010). "Travel and the Built Environment." *Journal of the American Planning Association*, 76(3), 265-294. http://eastportlandactionplan.org/sites/default/files/Ewing_Cervero_JAPA_2010_Travel+BE_MetaAnalysis.pdf.

Pixabay.com – All photographs used in this document are from this site.

APPENDIX B: Sub-Area Walk Score & Transit Score Summaries

Table B-1: Broward Combined Walk Score & Transit Score, 2016[1]

City	WalkScore	TransitScore
Fort Lauderdale	59	39
Pompano	47	34
Plantation	31	34
Hollywood	55	34
Coral Springs	38	29
Deerfield Beach	40	27
Pembroke Pines	32	24
Davie	29	16
Sunrise	39	33
Miramar	30	24
Weston	16	n/a
Lauderhill	44	36
Coconut Creek	28	30
Tamarac	32	30
Hallandale Beach	60	37
Margate	40	33
Dania Beach	54	35
Oakland Park	58	37
Cooper City	29	15
North Lauderdale	44	28
Wilton Manors	69	n/a
Lauderdale by the Sea	70	n/a
Lighthouse Point	55	n/a
Lauderdale Lakes	45	39
West Park	67	n/a
Hillsboro Beach	3	n/a
Southwest Ranches	13	n/a
Pembroke Park	46	n/a
Sea Ranch Lakes	42	n/a
Pine Island Ridge	15	0
Sunshine Acres	13	n/a
Roosevelt Gardens	61	39
Lazy Lake	75	n/a
Broadview Park	49	n/a
Hillsboro Pines	22	34
Washington Park	55	40
Boulevard Gardens	53	45
Franklin Park	72	39

Broward MPO
Metropolitan Planning Organization

Move People & Goods | Create Jobs | Strengthen Communities

Broward Metropolitan Planning Organization

Trade Centre South
100 West Cypress Creek Road, Suite 650, 6th Floor
Fort Lauderdale, FL 33309
info@browardmpo.org
(954) 876-0033 Office
(954) 876-0062 Fax

For more information on activities and projects of the Broward MPO, please visit: BrowardMPO.org

For complaints, questions, or concerns about civil rights or nondiscrimination, or for special requests under the Americans with Disabilities Act, please contact Erica Lychak, Title VI Coordinator, at (954) 876-0058 or lychake@browardmpo.org.

For more information, please contact:
Peter Gies, Strategic Planning Manager, Strategic Initiatives
Broward Metropolitan Planning Organization – Trade Centre South
100 West Cypress Creek Road, Suite 650, Fort Lauderdale, FL 33309
Phone: (954) 876-0033 I Email: giesp@browardmpo.org