HILLSBOROUGH MPO MOBILITY PROFILE

produced by

**Florida Department of Transportation
Forecasting and Trends Office**

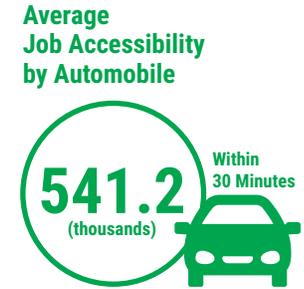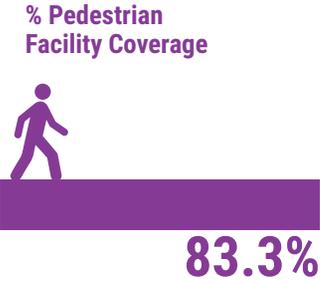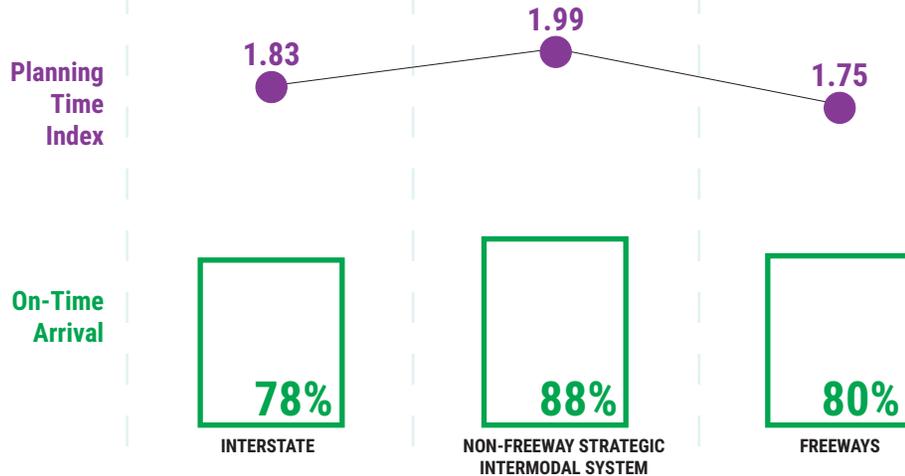*published*
2019

HILLSBOROUGH MPO MOBILITY PERFORMANCE PROFILE 2017

FDOT

Travel Time Reliability

Planning Time Index

1.83   1.99   1.75

On-Time Arrival

INTERSTATE	NON-FREEWAY STRATEGIC INTERMODAL SYSTEM	FREEWAYS
78%	88%	80%

% Pedestrian Facility Coverage

83.3%

% Bicycle Facility Coverage

59.4%

Average Job Accessibility by Automobile

541.2 (thousands) — Within 30 Minutes

Average Job Accessibility by Transit

8.0 (thousands) — Within 30 Minutes

Daily Vehicle Hours of Delay

- **40,600** NATIONAL HIGHWAY SYSTEM
- **44,600** STATE HIGHWAY SYSTEM
- **18,100** FREEWAYS
- **26,500** NON-FREEWAYS

NOTE: Profile is based on MPO Boundary

Percent Miles Heavily Congested

NATIONAL HIGHWAY SYSTEM
15%

STATE HIGHWAY SYSTEM
15%

FREEWAYS
20%

NON-FREEWAYS
12%

Daily Truck Miles Traveled / Daily Vehicle Miles Traveled

NATIONAL HIGHWAY SYSTEM
1.5M / 21.4M

STATE HIGHWAY SYSTEM
1.6M / 22.4M

FREEWAYS
1.1M / 13.2M

NON-FREEWAYS
0.5M / 9.3M
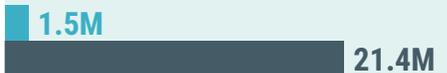
HILLSBOROUGH MPO MOBILITY TRENDS 2015-2017

FDOT

■ 2015 ■ 2016 ■ 2017

Travel Time Reliability
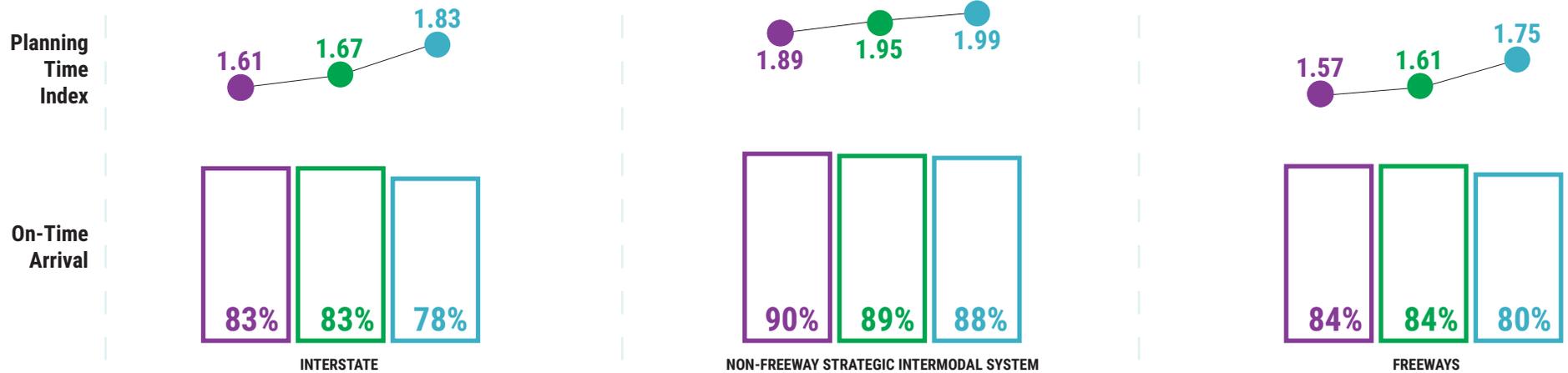
Planning Time Index

INTERSTATE: 1.61 / 1.67 / 1.83

NON-FREEWAY STRATEGIC INTERMODAL SYSTEM: 1.89 / 1.95 / 1.99

FREEWAYS: 1.57 / 1.61 / 1.75

On-Time Arrival

INTERSTATE: 83% / 83% / 78%

NON-FREEWAY STRATEGIC INTERMODAL SYSTEM: 90% / 89% / 88%

FREEWAYS: 84% / 84% / 80%

Daily Vehicle Hours of Delay

NATIONAL HIGHWAY SYSTEM
- 40,600
- 37,300
- 32,900

FREEWAYS
- 18,100
- 15,400
- 14,100

STATE HIGHWAY SYSTEM
- 44,600
- 41,400
- 35,100

NON-FREEWAYS
- 26,500
- 26,000
- 20,900

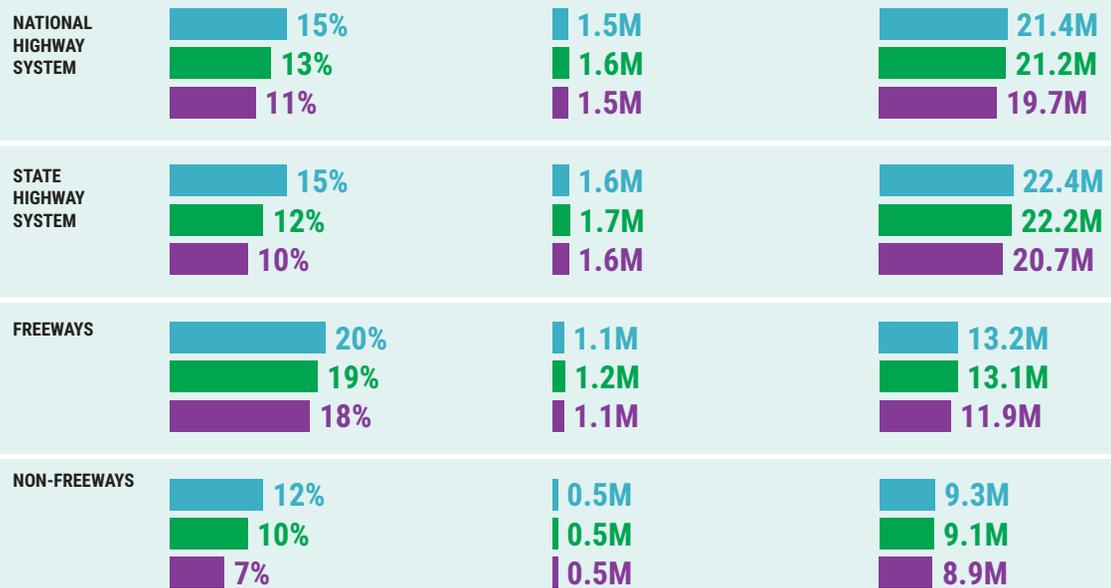*NOTE: Profile is based on MPO Boundary*

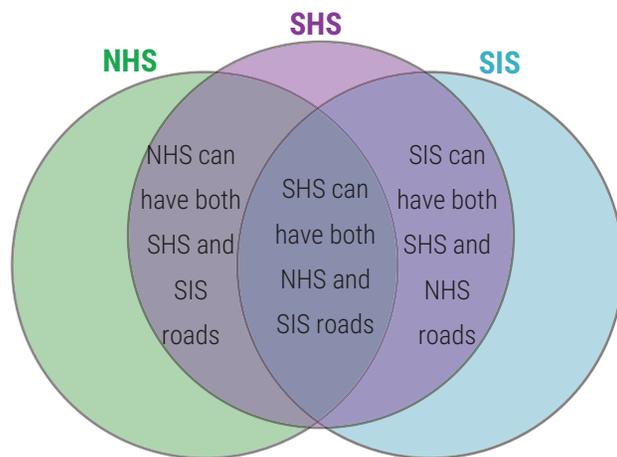|	Percent Miles Heavily Congested	Daily Truck Miles Traveled	Daily Vehicle Miles Traveled
NATIONAL HIGHWAY SYSTEM	15% / 13% / 11%	1.5M / 1.6M / 1.5M	21.4M / 21.2M / 19.7M
STATE HIGHWAY SYSTEM	15% / 12% / 10%	1.6M / 1.7M / 1.6M	22.4M / 22.2M / 20.7M
FREEWAYS	20% / 19% / 18%	1.1M / 1.2M / 1.1M	13.2M / 13.1M / 11.9M
NON-FREEWAYS	12% / 10% / 7%	0.5M / 0.5M / 0.5M	9.3M / 9.1M / 8.9M

DEFINITIONS

Travel Time Reliability: (1) the percent of trips that succeed in accordance with a predetermined performance standard for time or speed; and/or (2) the variability of travel times that occur on a facility or a trip over a period of time.

Planning Time Index: The 95th percentile travel time divided by free flow travel time. A planning time index of 1.5 means a 20-minute trip at free flow speed takes 30 minutes - an informed traveler should plan for the extra 10 minutes to arrive on time.

On-Time Arrival: The percentage of freeway trips traveling at greater than or equal to five mph below the posted speed limit. In the urbanized areas of the seven largest MPOs, on-time arrival is defined as the percentage of freeway trips traveling at least 45 mph. For arterials, travel time reliability is defined as the percentage of trips traveling greater than or equal to 20 mph.

Daily Vehicle Hours of Delay: Delay is the product of directional hourly volume and the difference between travel time at "threshold" speeds and travel time at the average speed. The thresholds are based on LOS B as defined by FDOT.

Three roadway systems are reported: National Highway System (NHS), State Highway System (SHS), and Strategic Intermodal System (SIS)

SHS

NHS   **SIS**

NHS can have both SHS and SIS roads

SHS can have both NHS and SIS roads

SIS can have both SHS and NHS roads

Percentage of Pedestrian Facilities: The percentage of pedestrian facilities and shared path coverage along the SHS within the metropolitan planning organization's (MPO's) urbanized area.

Percentage of Bicycle Facilties: The percentage of bicycle facilities and shared path coverage along the SHS within the MPO's boundary, the MPO's urbanized area, and within the county boundary (or county boundaries if more than one county) that the MPO is comprised of.

Average Job Accessibility by Automobile: The number of jobs accessible within a 30-minute autombile trip for each MPO. The Accessibility Observatory at the University of Minnesota calculated accessibility at the Census block level by measuring the travel time from each block to the neighboring blocks, then summing the total number of jobs that can be accessed within a 30-minute time period.

Average Job Accessibility by Transit: The number of jobs accessible within a 30-minute transit trip for each MPO. The Accessibility Observatory at the University of Minnesota calculated accessibility at the Census block level by measuring the travel time from each block to the neighboring blocks, then summing the total number of jobs that can be accessed within a 30-minute time period.

Percent Miles Heavily Congested: Heavy congestion is a situation in which average travel speeds are in the range from 20-44 mph for freeways and equal to or worse than the LOS standards for arterials and highways.

Daily Truck Miles Traveled: (for all trucks class 4 through 12): The total number of miles traveled by trucks using a highway system.

Daily Vehicle Miles Traveled: The total number of miles traveled by vehicles using a highway system.

Data Sources: FDOT Traffic Charateristics Inventory, FDOT Roadway Characteristics Inventory, 2013 Quality/Level of Service Handbook, and HERE vehicle probe speed

FDOT Supplied MPO Mobility Performance Measure Analyses for 2017 (Hillsborough MPO)

Date: 4/15/2019

Hillsborough (MPO Boundary)

Networks/Measures	Annual Measures[1]						Rotating Measures[2]			
	A: Daily vehicle miles traveled (Millions)	B: Daily truck miles traveled (Millions)	C: On-Time Arrival (Vehicle)[3]	D: Planning Time Index[3]	E: Daily vehicle hours of delay (Thousands)	F: Percent miles heavily congested[3]	G: % Pedestrian Facility Coverage	H: % Bicycle Facility Coverage	I: Average Job Accessibility by Automobile (Thousands)[3]	J: Average Job Accessibility by Transit (Thousands)[3]
A: National Highway System	21.4	1.5			40.6	15%			541.2	8.0
B: State Highway System	22.4	1.6			44.6	15%				
C: Strategic Intermodal System[4]	14.6	1.2	88%	1.99	21.8	20%				
D: Freeways	13.2	1.1	80%	1.75	18.1	20%				
E: Interstate	11.1	1.0	78%	1.83	17.4	25%				
F: Non-Freeways (SHS)	9.3	0.5			26.5	12%	83.3%	59.4%		

Hillsborough (Urbanized Area)

Networks/Measures	A: Daily vehicle miles traveled (Millions)	B: Daily truck miles traveled (Millions)	C: On-Time Arrival (Vehicle)[3]	D: Planning Time Index[3]	E: Daily vehicle hours of delay (Thousands)	F: Percent miles heavily congested[3]	G: % Pedestrian Facility Coverage	H: % Bicycle Facility Coverage
A: National Highway System	20.9	1.5			40.6	16%		
B: State Highway System	22.4	1.6			44.6	15%		
C: Strategic Intermodal System[4]	14.6	1.2	88%	1.99	21.8	20%		
D: Freeways	13.2	1.1	80%	1.75	18.1	20%		
E: Interstate	11.1	1.0	78%	1.83	17.4	25%		
F: Non-Freeways (SHS)	9.0	0.5			26.5	13%	83.3%	63.5%

Hillsborough (County Boundary)

Networks/Measures	A: Daily vehicle miles traveled (Millions)	B: Daily truck miles traveled (Millions)	C: On-Time Arrival (Vehicle)[3]	D: Planning Time Index[3]	E: Daily vehicle hours of delay (Thousands)	F: Percent miles heavily congested[3]	G: % Pedestrian Facility Coverage	H: % Bicycle Facility Coverage	I: Average Job Accessibility by Automobile (Thousands)[3]	J: Average Job Accessibility by Transit (Thousands)[3]
A: National Highway System	21.4	1.5			40.6	15%			541.1	8.0
B: State Highway System	22.4	1.6			44.6	15%				
C: Strategic Intermodal System[4]	14.6	1.2	88%	1.99	21.8	20%				
D: Freeways	13.2	1.1	79%	1.24	18.1	20%				
E: Interstate	11.1	1.0	77%	1.85	17.4	25%				
F: Non-Freeways (SHS)	9.3	0.5			26.5	12%	83.3%	59.4%		

[1]These six Annual Measures are reported each year.

[2]These four Rotating Measures change every other year. Even year measures consist of 1) Person miles traveled, 2) On-Time Arrival (Truck), 3) Average Travel Speed, and 4) Percent Travel Meeting LOS Criteria.

[3]Measures C, D, and F are captured in the PM peak period (4:00-6:00); measure I reflects conditions for an 8 AM departure on Wednesdays; measure J is captured in the AM peak period (7:00-9:00).

[4]SIS On-Time Arrival and Planning Time Index exclude freeways.

FDOT
Forecasting & Trends Office

Annual MPO Performance Measures by MPO Population Size

Hillsborough MPO 2017 Population: 1,379,300

Florida Department of Transportation Mobility Measures Program provides valuable information on performance measures for all 27 MPOs in Florida. On an annual basis the MPOs receive reports on ten measures, six measures annually and four rotating measures biennially for the entire MPO boundary, urbanized area within the MPO, and for counties within the MPO. The annual measures, in combination with the rotating biennial measures, cover the spectrum of mobility dimensions and multiple modes. These measures can be used however each MPO sees fit such as in the development of an MPO's Long Range Transportation Plan, Congestion Management Process, or State of the System Report. The following tables provide high, median, and low ranges for the State Highway System within the MPO boundary. MPOs are categorized as large, medium and small based on their population. The MPOs were distributed into the seven largest, nine medium, and eleven small-sized MPOs. For more information, please contact Monica Zhong at Monica.Zhong@dot.state.fl.us or (850) 414-4808.

SHS Daily Vehicle Hours of Delay in Thousands, 2017:
Hillsborough MPO 44.6

Vehicle Hours of Delay (Thousands)	Low	Median	High
Small-Sized MPO (Population[1] below 368,100)	0.4	1.6	6.7
Medium-Sized MPO (Population[1] 368,100 to 776,000)	1.2	6.5	10.4
Large MPO[2] (Population[1] over 776,000)	18.2	44.6	245.2

SHS Percent Miles Heavily Congested, 2017:
Hillsborough MPO 15%

Percent Miles Heavily Congested	Low	Median	High
Small-Sized MPO (Population[1] below 368,100)	<1%	<1%	9%
Medium-Sized MPO (Population[1] 368,100 to 776,000)	<1%	1%	3%
Large MPO[2] (Population[1] over 776,000)	4%	15%	41%

[1]2017 MPO Population is derived from FDOT Forecasting and Trends Office
[2]Seven Largest MPOs include Broward MPO, Hillsborough MPO, MetroPlan Orlando, Miami-Dade TPO, North Florida TPO, Palm Beach TPA, and Forward Pinellas

SHS Daily Vehicle Miles Traveled in Millions, 2017:
Hillsborough MPO 22.4

Vehicle Miles Traveled (Millions)	Low	Median	High
Small-Sized MPO (Population[1] below 368,100)	1.7	3.8	6.1
Medium-Sized MPO (Population[1] 368,100 to 776,000)	6.7	8.5	12.3
Large MPO[2] (Population[1] over 776,000)	10.7	27.9	33.9

SHS Daily Truck Miles Traveled in Millions, 2017:
Hillsborough MPO 1.6

Truck Miles Traveled	Low	Median	High
Small-Sized MPO (Thousands) (Population[1] below 368,100)	177.1	367.0	900.2
Medium-Sized MPO (Thousands) (Population[1] 368,100 to 776,000)	552.5	886.7	1,350.8
Large MPO[2] (Millions) (Population[1] over 776,000)	0.4	1.7	2.9

Freeway On-Time Arrival, 2017:
Hillsborough MPO 80%

On-Time Arrival	Low	Median	High
Small-Sized MPO (Population[1] below 368,100)	90%	96%	>99%
Medium-Sized MPO (Population[1] 368,100 to 776,000)	74%	92%	97%
Large MPO[2] (Population[1] over 776,000)	48%	75%	85%

Freeway Planning Time Index, 2017:
Hillsborough MPO 1.75

Planning Time Index	Low	Median	High
Small-Sized MPO (Population[1] below 368,100)	1.10	1.18	1.42
Medium-Sized MPO (Population[1] 368,100 to 776,000)	1.12	1.22	1.52
Large MPO[2] (Population[1] over 776,000)	1.51	1.73	2.34

[1]2017 MPO Population is derived from FDOT Forecasting and Trends Office
[2]Seven Largest MPOs include Broward MPO, Hillsborough MPO, MetroPlan Orlando, Miami-Dade TPO, North Florida TPO, Palm Beach TPA, and Forward Pinellas