

Advantage Pinellas: Transit

Pinellas Suncoast Transit Authority

FY 2021–2030 Transit Development Plan

Draft

April 2020

Public comments can be sent by email to engage@psta.net





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PSTA



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Identification of Submitting Agency

Agency: Pinellas Suncoast Transit Authority, (727) 540-1800
Mailing Address: 3201 Scherer Drive, St. Petersburg, FL 33716 (Authorizing Agency)
Representative: Bradford Miller, Chief Executive Officer

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Pinellas Suncoast Transit Authority (PSTA) is the main transit operator in St. Petersburg, Clearwater, and throughout Pinellas County, Florida. Transit service in Pinellas County began in 1903, when the St. Petersburg Municipal Transit System (SPMTS) inaugurated streetcar service between St. Petersburg and Gulfport. One bus was introduced to the system in 1919, and the system quickly grew to eight buses by 1926, which allowed SPMTS to exceed four million annual trips by the late 1920s. After more than 45 years of service, streetcar operations were shut down in 1949, transforming SPMTS into a bus-only system.

The early 1970s brought the introduction of another transit system to the county. Central Pinellas Transit Authority (CPTA) served Clearwater and central and northern Pinellas County, and SPMTS continued to serve St. Petersburg and southern Pinellas County. CPTA was granted local taxing authority, providing an important funding source for transit operations that allowed implementation of a new transit system comprising nine routes serving eight cities and towns in the county. CPTA carried approximately 900,000 trips in 1973, its first year of service.

The 1970s also saw the formation of the Pinellas County Metropolitan Planning Organization (MPO), now referred to as Forward Pinellas, which was responsible for creating and regularly updating the countywide transportation plan. MPO transit initiatives included a route connecting Clearwater and St. Petersburg via Tyrone Mall, jointly operated by CPTA and SPMTS, as well as an agreement for intraagency transfers, a common fare system, and a joint customer service call center. Increasing cooperation combined with reductions in Federal transit operating cost assistance in the early 1980s led to the merger of CPTA and SPMTS to form PSTA in 1984.

In the 35 years since it began operations, PSTA has grown dramatically and implemented many initiatives to improve and expand transit services in Pinellas County, including:

- Commuter service to neighboring Tampa, including service to downtown and Tampa International Airport;
- Branded Suncoast Beach Trolley operating between Clearwater and St. Pete Beach via Sand Key;
- Construction and operation of Grand Central Plaza and renovation of Park Street Terminal;
- Expansion of rider amenities that include Wi-Fi and almost 700 bus shelters;
- Construction of state-of-the-art PSTA headquarters and bus garage, located near Pinellas Park in St. Petersburg; and
- Implementation of innovative mobility partnership programs that provide late night and first and last mile service.

Today, PSTA operates 36 local fixed-route bus routes, 2 trolley routes, and 2 express routes that connect to downtown Tampa. PSTA also contracts with the Jolley Trolley and Looper Group, Inc. to operate the North County Coastal trolley route, 2 Clearwater Beach trolley routes, and the downtown St. Petersburg trolley route. In 2019, PSTA carried approximately 11.2 million unlinked passenger trips on its fixed routes with a fleet of more than 200 buses. When including demand-response and partner agency trips, the PSTA system carried nearly 12 million riders over the past year.





10-Year TDP Objectives & Requirements

This major Transit Development Plan (TDP) update will guide PSTA's services over the next 10 years, as currently required by Florida law. Current TDP requirements were incorporated by rulemaking into Chapter 14-72 of the Florida Administrative Code (F.A.C.) on February 20, 2007. Major requirements of the rule include the following:

- Major updates must be completed every 5 years, covering a 10-year planning horizon.
- A Public Involvement Plan must be developed and approved by the Florida Department of Transportation (FDOT) or consistent with the approved MPO Public Involvement Plan.
- FDOT, the Regional Workforce Development Board, and Forward Pinellas must be advised of all public meetings at which the TDP is presented and discussed and must also be given the opportunity to review and comment on the TDP during the development of the mission, goals, objectives, alternatives, and 10-year implementation program.
- Estimation of the community's demand for transit service (10-year annual projections) must use the planning tools provided by FDOT or a demand estimation technique approved by FDOT.
- Consistency with the approved local government comprehensive plans and the Forward Pinellas Long-Range Transportation Plan (LRTP).

Table 1-1 summarizes the Florida TDP requirements and references where in this report documentation can be found that each requirement been satisfied.





Table	1-1:	TDP	Checklist

V Public Involvement Plan (PIP) drafted V TPP includes description of Public Involvement Process Section 4, Appendix D V TProvide notification to FDOT Section 4, Appendix D V Provide notification to Regional Workforce Board Section 4, Appendix D V Land use Section 5 V State and local transportation plans Section 5 V Organizational issues Section 6 V Technology Section 5 V 10-year annual projections of transit ridership using approved method Section 5 V Calculate farebox recovery Section 5 V Provider's vision Section 7 V Provider's wision Section 7 V Provider's of each alternative strategies and actions Section 6 Alternative Courses of Action Section 8 V Provider's begand Section 8 V Provider's solating operating and capital expenses Appendix A V Provider's part alternative strategies and actions Section 8 V Provider's using operating and capital expenses Appendix A V <t< th=""><th>Public</th><th>Involvement Process</th><th>TDP Section</th></t<>	Public	Involvement Process	TDP Section
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Report Organization

This report is organized into eight major sections, including this introduction.

Section 2, summarizes the **Baseline Conditions**, including a physical description of PSTA's service area, a population profile, demographic and socioeconomic trends, economic conditions, and land use patterns. The information presented in this section provides context for PSTA's services and improvements identified in the TDP.

Section 3, Evaluation of Existing Transit Services includes a review of PSTA's services and trends to understand opportunities and challenges for the agency related to the existing system. A comparison of specific operating characteristics between PSTA and other peer transit agencies is also provided to benchmark PSTA's performance relative to similar agencies.

Section 4, **Public Outreach** summarizes public outreach activities undertaken from which comments are collected and considered during the TDP process. The preferences of the community and unmet needs concerning transit are reviewed and combined into an assessment of how PSTA's services may be improved during the planning period.

Section 5, Situation Appraisal documents PSTA's current operating environment to better understand its strengths and weaknesses, existing challenges to providing current or needed transit services, and key opportunities for addressing these challenges over time. The situation appraisal incudes an assessment of applicable Federal, State, and local plans or studies. The plans review identifies policies, actions, or related information that could affect PSTA administratively or the programs and services it provides.

Section 6, Alternatives & Transit Demand documents identified transit needs, or alternatives, for consideration in the 10-year TDP. The identified service improvements are grouped into two distinct scenarios to provide a baseline improved system versus one including all identified transit needs for the next 10 years without consideration of funding constraints. This section also summarizes the ridership demand assessment.

Section 7, Mission and Goals serves as a policy guide for PSTA operations, planning, and implementation of the TDP over the next 10 years.

Section 8, 10-Year Transit Plan summarizes the funding and implementation plan developed for PSTA covering the FY 2021–2030 period and identifies the operating and capital priorities of the unfunded improvements.



Section 2 Baseline Conditions

Throughout the US, a wide range of social, economic, demographic, and technological changes are changing the way people live, work, and travel. Many of these current changes represent potential opportunities as well as challenges for public transit agencies, including PSTA, whereas future changes, most unforeseen, will require innovative, flexible responses. Transit markets in Pinellas County and across the US also have changed significantly since 2013, offering PSTA new opportunities to serve the community. Pinellas County has added thousands of new residents and jobs since 2013, significantly expanding the potential transit market, and is projecting additional future growth. New and infill development throughout the county as well as new forms of development have changed the distribution of residents and jobs while their numbers have been increasing. This has brought a larger portion of a growing potential market within walking distance of transit routes. With little undeveloped land in Pinellas County, future growth will focus on redevelopment at higher densities. This trend will allow population and employment densities to grow in Pinellas County. Changing development patterns combined with population and job growth also increase traffic volumes, which contributes to traffic congestion in areas with no ability to add roadway capacity, incentivizing transit.

Transit tends to be more effective and more efficient in areas of higher population and/or employment density. In areas with these characteristics, trips tend to be shorter and more direct, and transit can be accessed by more riders. Lower-density areas, on the other hand, are more challenging for transit to serve cost-effectively. Trips tend to be longer and more circuitous, and fewer people live and work within walking distance of bus stops, requiring more robust first/last mile solutions.

Typically, the most common demographic markets for transit service include:

- Lower-income workers and residents
- Older adult residents and residents with disabilities
- Minority residents
- High school and college students
- Persons who prefer to take transit for shorter local trips rather than drive
- Entertainment trips within downtowns, beaches, or other tourist areas
- Regional commuters (e.g., Pinellas County residents who work in Tampa or have other longdistance commutes and work in areas where a combination of gas, tolls, and parking costs mean that the cost of commuting by car is high)

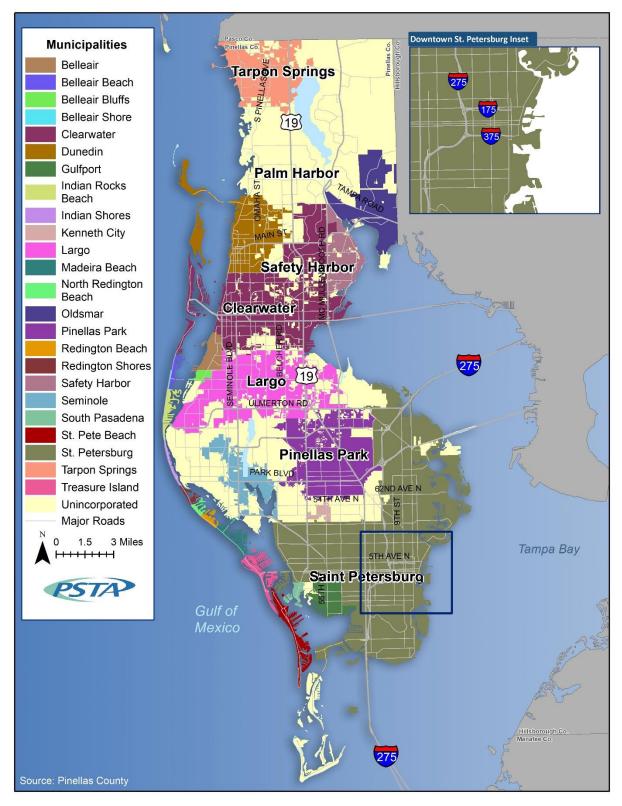
This section documents the study area conditions and demographics of Pinellas County.

PSTA Service Area

Located on the west coast of Florida, Pinellas County is an urban county in the Tampa–St. Petersburg– Clearwater, Florida Metropolitan Statistical Area (MSA). Along with the unincorporated areas, there are 24 incorporated entities in Pinellas County (Map 2-1). St. Petersburg is the largest city in the county, both in terms of population and geography.







Map 2-1: Municipalities and Unincorporated Areas of Pinellas County





Population

Pinellas County is the most densely populated county in Florida, with an estimated 2019 population of 978,045 persons living within 280 square miles.¹ As the county is nearly built-out, population growth comes primarily from redevelopment into higher-density land uses.

As shown in Figure 2-1, Pinellas County has experienced an average annual growth rate of 0.3%. Between 2000 and 2010, Pinellas County experienced a slight decrease in population of nearly 5,000 residents; however, over the next decade, approximately 60,500 residents were added. Forward Pinellas prepared population projections for its *Advantage Pinellas* 2045 Long Range Transportation Plan (LRTP) that forecasts adding approximately 93,000 residents over the next 25 years, continuing the trend of a moderate annual population growth rate (0.38%) during this time.

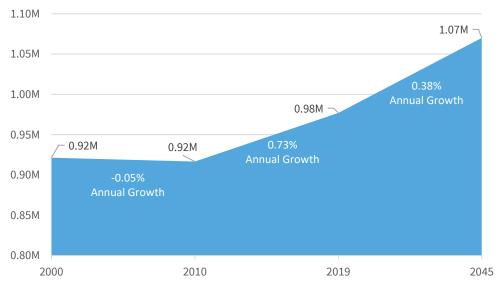


Figure 2-1: Overall Population Growth in Pinellas County

Sources: US Census Bureau for 2000 and 2010 population figures; University of Florida's Bureau of Business and Economic Research (BEBR), 2019 Population Estimates for 2019 population estimate; Forward Pinellas' Advantage Pinellas Plan for 2045 population projections.

As shown in Table 2-1, most of the county's residents live in either unincorporated areas or St. Petersburg. The population of St. Petersburg also experienced the largest growth since 2000, largely spurred by increasing multi-family housing units.



¹ BEBR 2019 Population Estimates.

Geography	2010	2019	Percent of County Population	Absolute Growth 2010–2019	% Change 2010–2019
St. Petersburg	244,769	268,908	27.5%	24,139	9.9%
Clearwater (County Seat)	107,685	116,585	11.9%	8,900	8.3%
Largo	77,648	83,737	8.6%	6,089	7.8%
Pinellas Park	49,079	53,284	5.5%	4,205	8.6%
Other Incorporated Areas	166,867	177,511	18.2%	10,644	6.4%
Unincorporated County	270,494	277,035	28.4%	6,541	2.4%
Total	916,542	977,060	100%	60,518	6.6%



Source: BEBR 2019 Population Estimates

Population and Employment Density

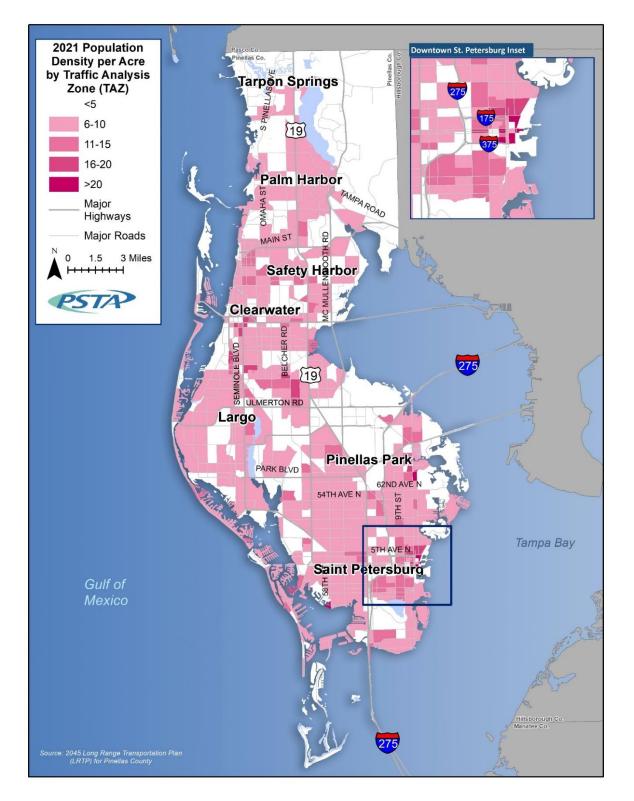
Population Density

Population density is often one of the most important indicators of a healthy transit market and potential transit productivity. In terms of an area's transit market, areas of high population density have more people living within distance of transit stops than areas of lower population density. Additionally, areas with high population density often are associated with urban design characteristics that promote transit use, such as a complete sidewalk network, smaller lot sizes and setbacks, narrower streets, bicycle facilities, a mix of land use types with residential, retail and commercial office uses represented within one neighborhood (often within one building), and amenities that promote pedestrian activity and attract visitors.

Pinellas County has the highest population density of all counties in Florida, with a countywide average of 3,493 persons per square mile. Map 2-2 shows the projected population density (persons per square mile by Traffic Analysis Zone [TAZ]) for 2021, the TDP base year. Higher-density TAZs (21+ persons per acre) are limited to a few zones in and around downtown St. Petersburg; and other block groups with density greater than 15 persons per acre are scattered throughout the county. The corridors around downtown St. Petersburg are among the few corridors with mostly sustained population densities of 11+ persons per acre and multiple block groups of 16+ persons per acre. Map 2-3 shows similar densities forecasted for 2030, with density growing in already-established areas in and around downtown St. Petersburg.

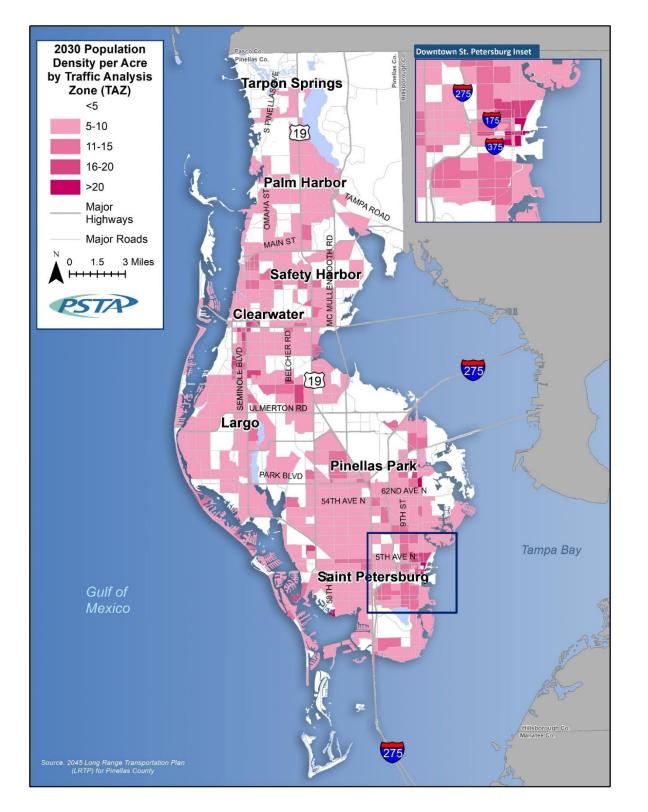








Map 2-3: 2030 Population Density







Employment Density

Employment density is another important factor to consider when analyzing a transit market. Areas of high employment density also often are activity centers like retail or shopping centers, medical offices, high schools, colleges, or universities that attract transit trips. Downtowns or central business districts that tend to have higher employment densities and a mix of land uses, as noted above, also often have limited parking capacity and paid parking, which also increases transit demand.

Compared to population density, areas of high employment density are more concentrated within major activity centers throughout the county. The highest concentrations of employment density are in downtown St. Petersburg, downtown Clearwater, and the Greater Gateway Area including Carillon Office Park (along Ulmerton Road near the Howard Frankland Bridge), as shown in Map 2-4. These areas report clusters of areas with 16+ jobs per acre, with some TAZs exceeding 20 jobs per acre. Other areas in the county that report moderate levels of employment include the Tyrone Square/Crossroads Shopping Center area near the intersection of Tyrone Blvd/Alt-19 and 66th Street N, the area just west of the Carillon Park Office Park in central east Pinellas County between Ulmerton Road and 118th Avenue spanning as far west as 66th Street, the Oldsmar area in northeast Pinellas County (which recently experienced new development along the Tampa Road/Hillsborough Avenue corridor), and the beaches related to service industry jobs at hotels, restaurants, and other tourism-related destinations. These are projected to continue to be high-density employment areas over the next 10 years (Map 2-5).

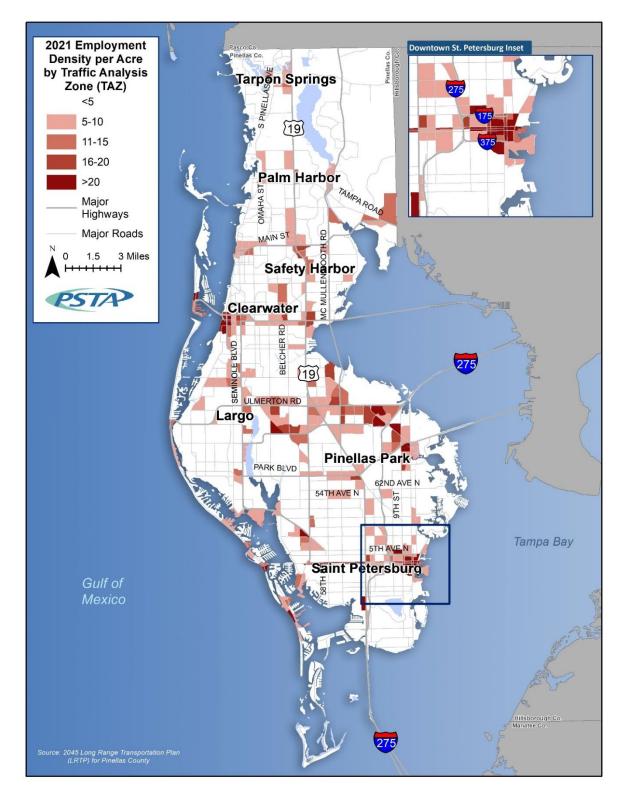
Combined Population and Employment Density

Population density and employment density often are complementary, as most transit trips are hometo-work trips and vice versa. Areas with high population densities are likely to generate particularly high volumes of trips to high-density areas, potentially reaching trip volumes that make efficient transit service possible. Using population or employment density alone could overlook areas with a moderately high but equal balance of population and employment density. Areas with both moderate-to-high combined population and employment densities also are especially likely to be activity centers that feature mixed-use development with good pedestrian access and walkable scale that represent the ideal of transit-supportive development. Thus, areas with high combined population and employment density are likely to generate transit ridership as high as, or higher than, areas with high population or employment densities alone.

The analysis of combined population and employment density in Pinellas County generally are the same areas that were identified as having higher population *or* employment, with the combination merely reinforcing the earlier identification of the areas as high transit propensity locations where the two characteristics overlap. The areas with high concentrations of population and employment density include downtown St. Petersburg, downtown Clearwater, the Carillon Park area, and several smaller and condensed block groups in the Largo area (Map 2-6). These areas report combined population and employment densities exceeding 16+ persons/jobs per acre, with some approaching 21+ persons/jobs per acre.

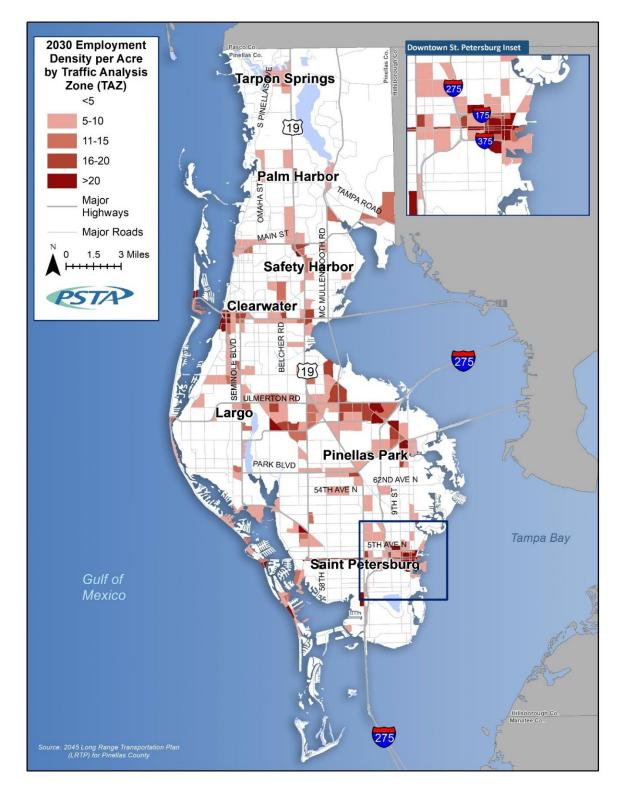




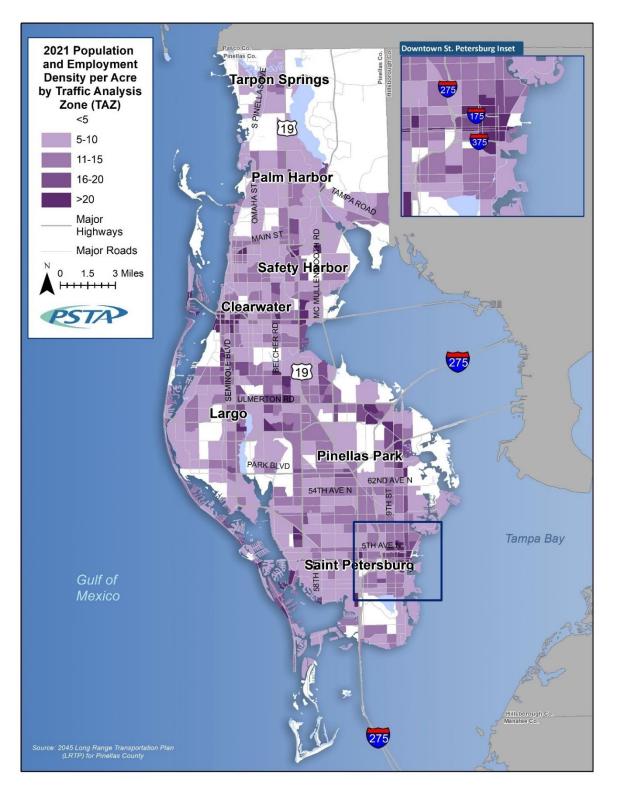








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Map 2-6: 2021 Combined Population and Employment Density





Employment by Industry

Pinellas has diverse economic opportunities contributing to its employment density. Educational services and health care and social assistance account for 21% of jobs. Professional, scientific, and management, and administrative and waste management make up another 15%, followed by retail trade (13%). Collectively, these jobs make up approximately half of all jobs in the county (Figure 2-2).

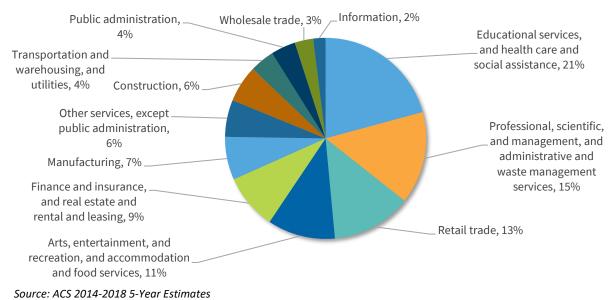


Figure 2-2: Occupation by Industry (2018)

Demographic Indicators

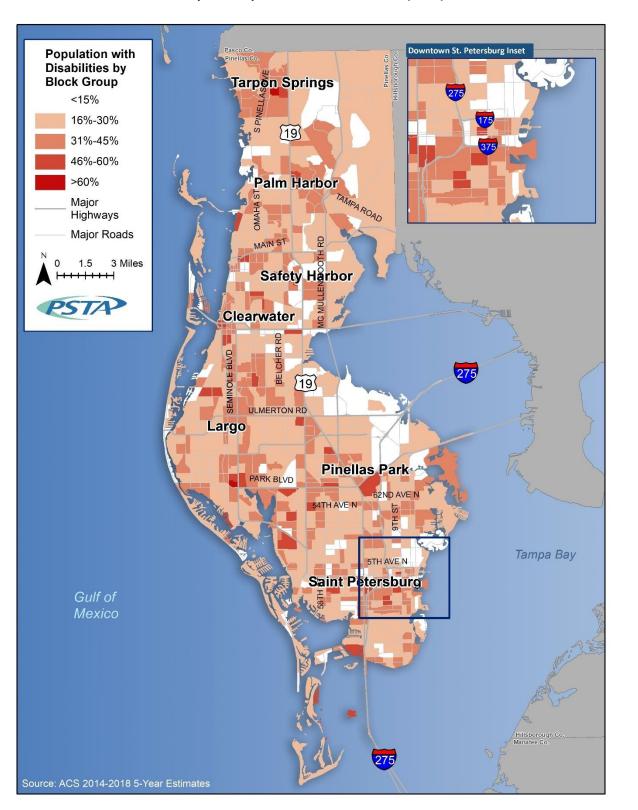
This section presents the various demographic markets for population groups that tend to use transit services, including:

- Persons with disabilities
- Older adults
- High school and college students
- Millennials and younger persons with changing mobility preferences
- Minorities and Limited English Proficiency populations
- Lower-income individuals
- Individuals with limited access to vehicles

Persons with Disabilities

Persons with disabilities may rely on transit service for their mobility needs if they cannot drive or walk long distances. Door-to-curb or curb-to-curb paratransit services are provided for persons who cannot use accessible fixed-route services for some or all their transportation needs. Map 2-7 illustrates the percentage of population with disabilities by Census block group for Pinellas County.











Both downtown St. Petersburg and Clearwater reported several block groups with persons with disabilities exceeding 30% of the population. However, numerous block groups are scattered throughout the county that report persons with disabilities exceeding 45% of the total population, reflecting higher proportions of retirement communities, residential treatment centers, and nursing homes of various sizes in these areas relative to the geographic scale of the block group. However, significant concentrations of persons with disabilities—many of them transit-dependent—are found in many other places throughout the county, including in portions of northeast Pinellas and other areas where overall population and employment density is moderate or lower. This creates "must-serve" locations in areas and along corridors where transit service may otherwise be underutilized.

Age

Older adults (persons age 65+) are another significant segment of transit ridership for both fixed-route and paratransit services. Older adults use public transportation in greater proportion than the general population for several reasons, including limited fixed incomes or a higher rate of physical or cognitive disabilities that limit their driving ability. In addition, the Federal Transit Administration (FTA) requires transit agencies that receive Federal funding to provide a discounted fare to older adults, further incentivizing their use of transit.

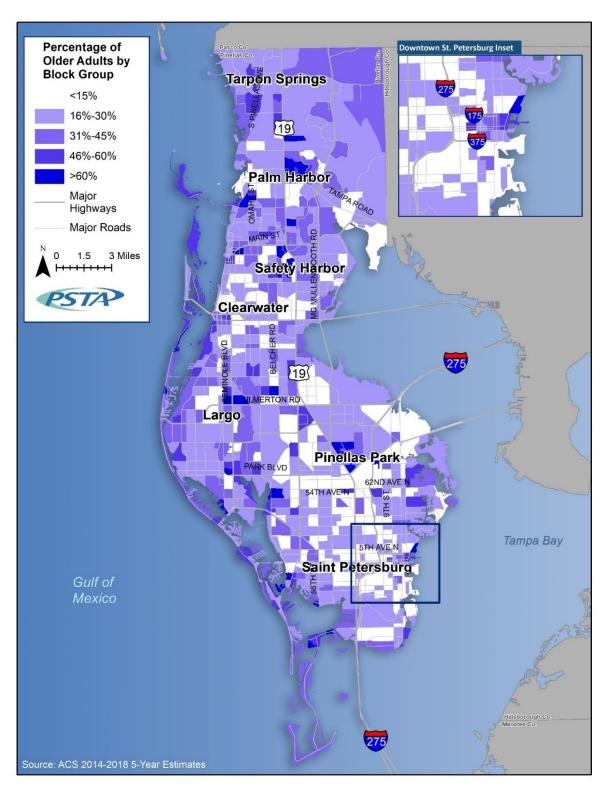
Several block groups with higher concentrations of residents with disabilities also have high concentrations of older adult residents, which is expected since the prevalence of some disabilities gradually increases with age. These block groups are located primarily in the central Pinellas County area near the Largo area (Map 2-8). Other areas with high concentrations of older residents are in northern Pinellas County and along the barrier islands in the Gulf of Mexico in western Pinellas County. Many of the block groups in these areas reported older adults comprising 45–60% of the total population. The block groups located on the barrier islands do not have high concentrations of persons with disabilities, so these areas are likely home to age-restricted communities, active retirement communities, or older adult residential centers.

Millennials (persons born between 1982 and 2000²) are the nation's largest generation and exhibit different transportation needs and preferences than prior generations. Millennials tend to drive less and desire more choices and flexibility in transportation options, particularly in urbanized areas.³ Approximately 17% of Pinellas County residents fall within the age range generally defined as millennials. Younger adults born after millennials, referred to as Generation Z, are continuing to exhibit these same preferences, indicating a more permanent shift in transportation habits than generations prior. Approximately 5% of the county's population today are ages 15–19 and generally fall under this label, including high school and college students who may not have access to their own vehicle for school, work, or other trips and therefore may be more reliant on public transportation or others for rides.

³ American Association of Public Transportation (APTA), "Millennials and Mobility: Understanding the Millennial Mindset and New Opportunities for Transit Providers" (2013).



²As defined by the U.S. Census Bureau.



Map 2-8: Older Adult Population (2018)



According the Bureau of Economic and Business Research (BEBR), older adults currently make up 25% of Pinellas County's population, which is projected to increase to 32% by 2035 (Figure 2-3), as the county continues to be a popular retirement destination. This growth in older adult residents throughout the county is expected to place increased demand on transit services. The distribution of other age groups is projected to remain consistent over the next 25 years but grow overall in number relative to the county's overall population growth.

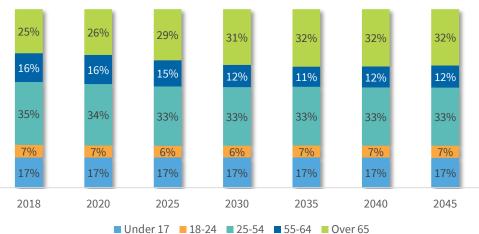


Figure 2-3: Current and Projected Age Distribution (2018–2045)

■ Under 17 ■ 18-24 ■ 25-54 ■ 55-64 ■

Minority and Limited English Proficiency (LEP) Populations

The location and concentration of minority populations is another important source of demand for a transit agency. Minority populations tend to ride public transportation in higher proportion compared to their share of the total population, even when controlling for other demographic characteristics such as age, disability status, income level, and other factors associated with transit use. Based on PSTA's 2018 on-board survey data, 60% of riders are minorities compared to 25% of the countywide population.

For the purposes of this analysis, a minority is defined as anyone who, through the US Census, does not identify as "White-alone" in terms of their race or ethnicity. Most Pinellas County residents identify as White-alone (74.3%), and the remaining 25.7% identify as Black or African American-alone (10.0%), White-Hispanic (7.4%), Asian-alone (3.3%), or other racial or ethnic minority groups, as shown in Figure 2-4.

In 2018, 7.1% of Pinellas County's population identified as Limited English Proficiency (LEP), those who speak English "less than very well." Of Pinellas County's LEP population, approximately 22% are Spanish-speaking LEP persons.⁴



Source: BEBR 2019 Population Estimates

⁴ Source: Census ACS 2014–2018 5-Year Estimates.

There are very high concentrations (31%+) of minority residents in south St. Petersburg, with a cluster of block groups in which minorities exceed 60% of the total population (Map 2-9). This area includes the region just south of downtown St. Petersburg along 1st Avenue S and extends as far west as 49th Street S and south towards Tampa Bay and the Skyway/I-275, including the neighborhoods of Lakewood Estates, Lake Shore Park, Bahama Shores, and Highland Oaks. Other areas with higher concentrations of minority residents include the downtown Clearwater area, Pinellas Park, and northern Largo/southern Clearwater. In the more rural northern areas of the county, such as Tarpon Springs, Palm Harbor, and Oldsmar, minorities comprise less than 15% of the population.

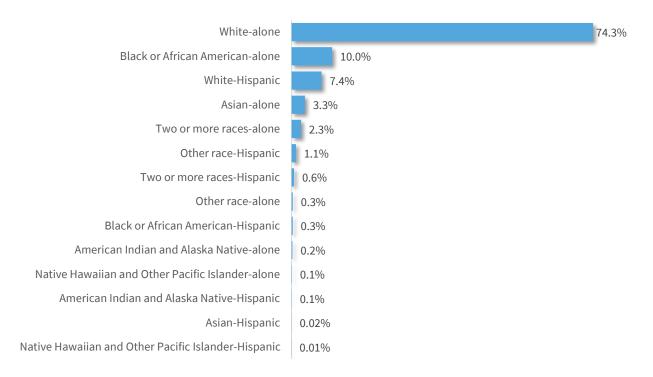
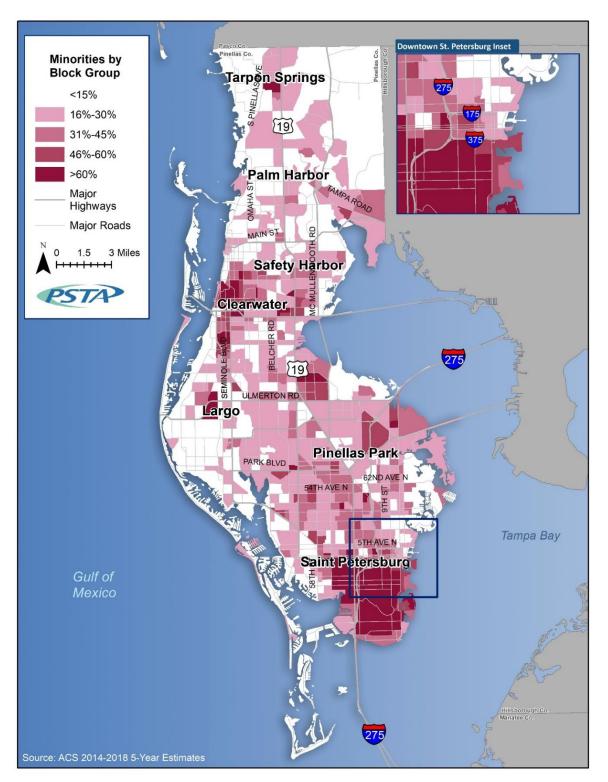


Figure 2-4: Distribution of Population by Race and Ethnicity (2018)

Note: Racial minority is defined by the US Census Bureau as a person who is Black/African American, American Indian/Alaska Native, Asian, Native Hawaiian/other Pacific Islander, some other non-White race, or a combination of two or more races. Ethnic minority is defined by the US Census Bureau as a person who is Hispanic or Latino; although Hispanics and Latinos are considered minorities, they are defined by the US Census Bureau as an ethnicity rather than a race. People who identify their origin as Hispanic or Latino may be of any race.

Source: ACS 2014-2018 5-Year Estimates





Map 2-9: Minority Population (2018)





Households Below the Poverty Line and with Limited Vehicle Access

Households with incomes below the poverty line and/or that lack access to a private vehicle often rely on public transit as their primary means of transportation. Based on PSTA's 2018 on-board survey data, 57% of PSTA riders have an annual household income of \$25,000 or less compared to 25% of the countywide population.

In addition, some higher-income households lack a vehicle, usually because the residents are older or have a disability that prevents them from driving and sometimes because the residents choose to live "car-free" to avoid the cost and hassle of car ownership, to express environmental concerns, or for other reasons. However, many households with incomes below the poverty line own and operate one or more vehicles, in some cases prioritizing the mobility afforded by vehicle ownership over more basic needs such as food, clothing, and shelter. The small but growing number of low-income people who live in their vehicles is the ultimate expression of this tendency to prioritize mobility over more basic needs.

A minor but consequential increase in the proportion of people living below the poverty level and receiving supplemental income assistance indicates growth in transit-dependent riders. The proportion of families living below the poverty level in Pinellas County since 2000 grew by approximately 28% as of 2018; moreover, households receiving public assistance income grew by approximately 4.3% over the same period. An increase of approximately 19.4% was observed among households receiving Supplemental Security Income, which provides stipends to low-income individuals and persons with disabilities who are age 65 and older.⁵

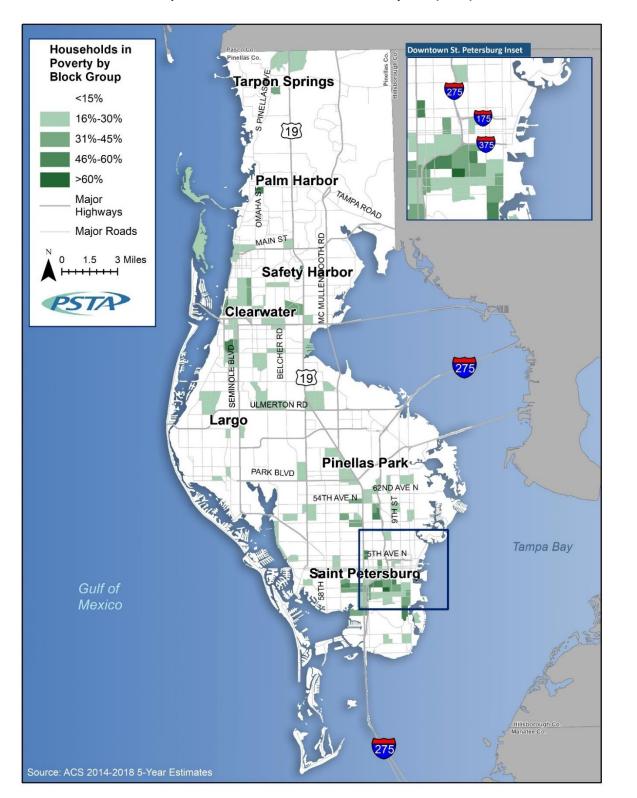
Concentrations of households living below the poverty line are in both downtown St. Petersburg and Clearwater, where several block groups report that at least 30% of all households live below the poverty line and many block groups reporting more than 40% of all households living below the poverty line (Map 2-10). Just outside downtown St. Petersburg, the concentration of poverty households extends west to 49th St and south of Central Avenue, where households living below the poverty line comprise 30–40% +of all households. Outside the main urban centers, some concentrations of poverty households are also reported along Ulmerton Road in central Pinellas County and in the northern part of the county in Tarpon Springs.

Overall, vehicle ownership is very high throughout Pinellas County, with 8.1% of households having no access to a vehicle.⁶ Only a few pockets of block groups with high concentrations of zero-vehicle households exist in both downtown St. Petersburg and Clearwater (Map 2-11). However, these are also areas with complete sidewalk networks, a higher level of transit service, mixed-use development, and low speed limits, which promote walking and biking as well as transit use. Outside these larger urban centers, block groups south of Central Avenue in south St. Petersburg and South Pasadena also reported that more than 30% of all households have no access to an automobile, likely due to income limitations, thereby indicating a higher reliance on transit.



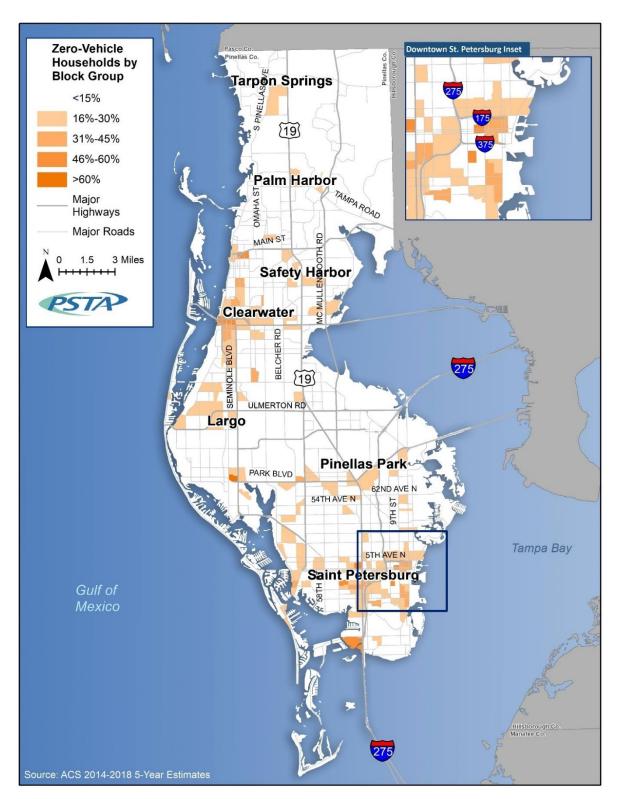
⁵ Sources: US 2010 Census; ACS 2014–2018 5-Year Estimates.

⁶ Census ACS 2014–2018 5-Year Estimates.



Map 2-10: Households Below the Poverty Line (2018)





Map 2-11: Zero-Vehicle Households (2018)

2-20

Commuter Characteristics and Patterns

Commute Characteristics by Mode

Given the high number of long-distance commuter trips around Tampa Bay, commuters are a significant potential transit market for PSTA. Understanding commuter travel behaviors and patterns helps to determine where people are routinely traveling between home and work and where transit service can lessen these daily trips made by car.

Figure 2-5 shows that the percentage of commuters who drive alone are a majority (79%) of all commute trips, a percentage that has marginally decreased since 2010. Although the percentage of commuters using public transportation also held steady, its share represents only 1.7% of all commute trips. The most notable change in commute behavior during this timeframe is a 2.2% increase in persons working from home resulting from increasing popularity of flexible work schedules, including flex hours/days. When considering how transit should serve commuters, flexible work schedules should be considered to ensure that transit is an attractive option to choice riders.

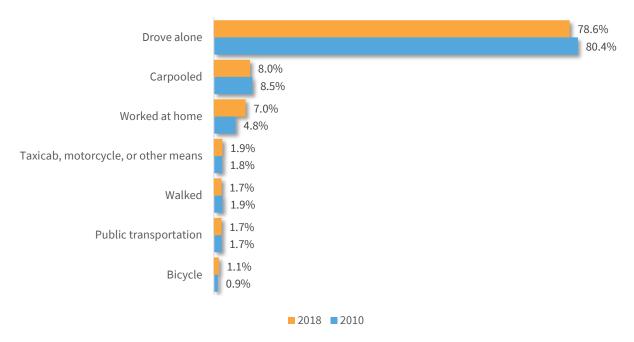


Figure 2-5: Commute by Mode for Pinellas County (2010 and 2018)

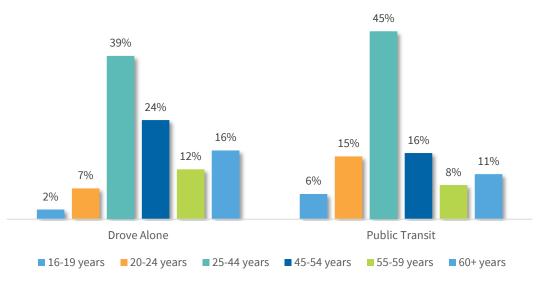
Sources: Census 2010 and ACS 2014–2018 5-Year Estimates

The total number of commute trips in Pinellas County made by driving alone significantly outnumbers commute trips made by transit (just over 345,000 vs. 7,600). However, as shown in Figure 2-6, when comparing the percentage of commute trips by mode by age, younger commuters ages 16–24 seem more likely to take transit (21%) than drive alone (9%). Conversely, older adults age 55+ seem more likely to drive alone (28%) than take transit (19%).

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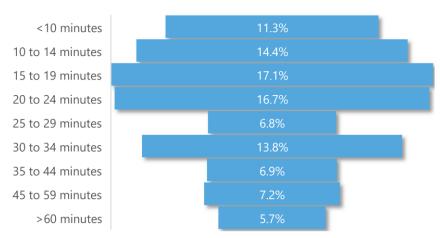


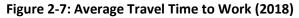
Figure 2-6: Percentage of Commuters by Mode by Age (2018)



Source: Census ACS 2014–2018 5-Year Estimates

As shown in Figure 2-7, most commuters (87%) spend less than 45 minutes traveling to/from work, with nearly 45% spending 20–44 minutes commuting. Further examination of commute times by mode of travel (Figure 2-8) shows a considerable difference in average travel time for commuters who drove alone compared to transit riders. As shown, 42% of commuters who drove alone had a commute time of less than 20 minutes compared to only 20% of transit riders. Conversely, 5% of commuters who drove alone had a commute time of 60+ minutes compared to 33% of transit riders. For transit to attract "choice" commuters, service needs to be convenient in terms of location and schedule, and travel time by bus should be faster than (or at least comparable to) driving. These data indicate that travel time has been a significant barrier to making transit an attractive commute option in Pinellas County.





Source: ACS 2014–2018 5-Year Estimates





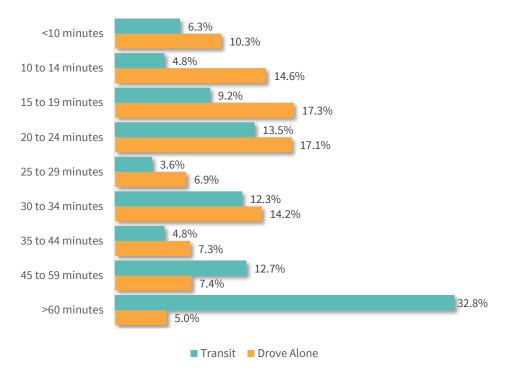


Figure 2-8: Average Travel Time to Work by Mode (2018)

Commuter Inflows and Outflows

To assess local trends and patterns of commuters, an analysis was completed using Census Transportation Planning Products Program (CTPP) data based on ACS 2012–2016 5-Year Estimates. The ACS records responses of employment and workplace location from a national, residence-based household survey providing geographic commuting patterns of workers.

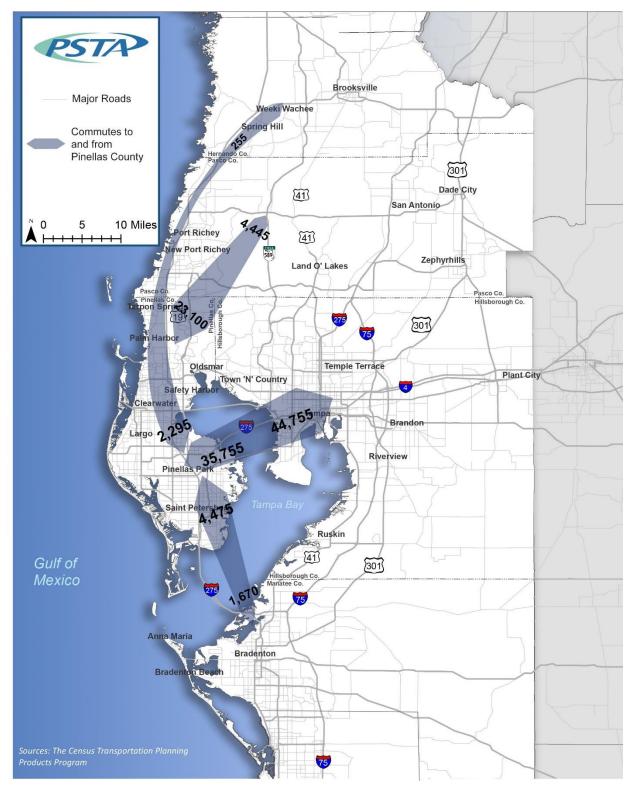
Of Pinellas County's approximately 434,000 workers, 84% live somewhere in Pinellas County. The three most significant commute patterns in/out of the county include nearly 45,000 workers living in Pinellas County and commuting to Hillsborough County, nearly 36,000 living in Hillsborough and commuting to Pinellas County, and nearly 5,000 living in Manatee County and commuting to Pinellas County.

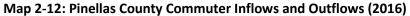
Map 2-12 illustrates the primary commuting patterns in and out of Pinellas County using ACS data.



Source: ACS 2014–2018 5-Year Estimates











Land Use

Local land use policies can have a major effect on transit use and demand. Policies that encourage higher-density residential or employment levels, mixed uses, complete sidewalk networks, bike paths, reduced building setbacks, and concentrations of activity centers such as retail, recreation, medical offices, and schools all contribute to a transit-supportive environment.

In Pinellas County, the existing land use pattern is dominated by single-family housing and oriented towards single-use developments, with few areas designated as mixed-use outside of the downtown/central business district areas. These land use and zoning policies and subsequent development patterns have encouraged car ownership and discouraged walking, biking, and transit use throughout the county. These types of land uses are also more difficult to efficiently serve with public transit.

However, this predominant land use pattern is slowly changing. Initiatives to change future development through land use and zoning policies that promote increased density, mixed uses, and transit-oriented development are being incorporated into short- and long-range plans. Land use planning in Pinellas County is guided by the Countywide Plan (Figure 2-9), which integrates land use planning among the 25 local governments within the county and is closely coordinated with the LRTP process. The Countywide Plan directs higher-density redevelopment into activity centers and multimodal corridors that can support a variety of transportation modes while preserving and enhancing the suburban character of established neighborhoods.

Key Destinations and Activity Centers

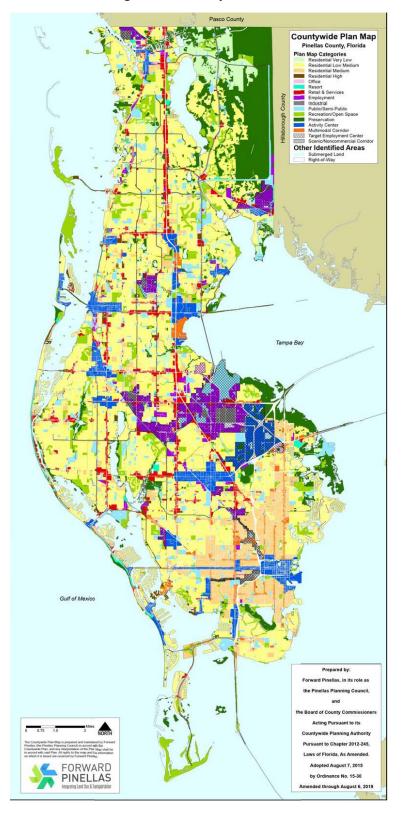
The location and concentration of key activity centers, such as major employers, retail centers, schools and universities, major hospitals, tourism and entertainment destinations, etc., is another important consideration for transit. In addition, destinations of interest to lower-income persons, older adults, and persons with disabilities, such as public housing centers, social services, etc., are an important consideration when considering where and at what level transit should operate.

Aside from public schools, most key destinations identified on Map 2-13 are in Clearwater or the southern half of Pinellas County. A large concentration of government and social service offices is in downtown St. Petersburg, as are medical facilities, recreational areas, museums/tourist destinations, and the University of South Florida St. Petersburg within and around the greater downtown area. Many office parks are in the Gateway area and along the Ulmerton Road and Roosevelt Boulevard corridors. Additional government and social service offices are also located in the downtown Clearwater area, as it is the County seat.

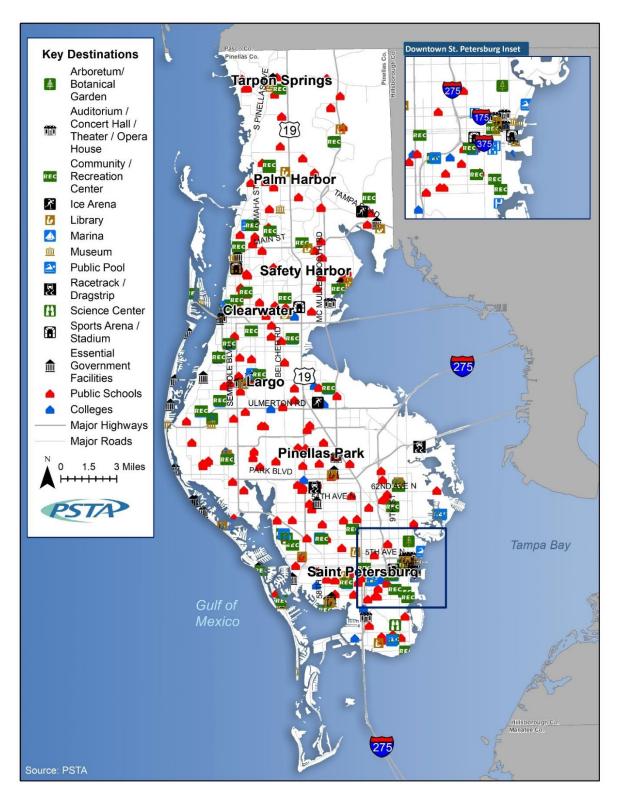




Figure 2-9: Countywide Plan







Map 2-13: Key Destinations in Pinellas County



Baseline Conditions Summary

This baseline conditions assessment has highlighted several considerations for the transit planning process, including the following:

- Most of Pinellas County can be characterized as low-density single-use developments; however, several higher-density mixed-use nodes exist throughout the county. These land use patterns make transit more efficient to service and better promote transit usage. Improving transit service to these areas will be a critical consideration in developing new alignment and service changes. Like many other areas in Florida, high concentrations of older adults and persons with disabilities live throughout Pinellas County. These populations have higher mobility needs, making areas with high concentrations of these residents "must serve" areas for public transit, often with higher cost ADA paratransit service, regardless of whether the density or other characteristics of the areas are transit-supportive. Lower-cost alternatives to fixed-route service, such as extending PSTA's Direct Connect service (described in the next section), would be necessary if fixed-route service in these areas is eliminated.
- Lower-income persons generally tend to live in older, more urbanized areas of the county. In most cases, these areas have the highest concentration of transit service and the highest ridership in the system. Maintaining and improving service in these areas is the surest way to increase ridership on the PSTA fixed-route system in the short-term.
- Most Pinellas County residents are not minorities. Of those who are, areas with the highest concentrations generally correlate with the lower-income areas in the older, urbanized areas.
- Car ownership is high throughout the county. Downtown St. Petersburg and downtown Clearwater have the highest concentration of zero-car households. Building on these low-car ownership areas is a longer-term opportunity for PSTA's system development.
- Most of Pinellas County has been developed and has enough density to support regular fixedroute transit service. However, outside of downtown St. Petersburg and downtown Clearwater, residential density is low. Although the Gateway area has high employment densities, the office parks within were not built in a manner that allows efficient transit service. In the short term, lower-frequency fixed-route service and alternative services (such as on-demand rides) are most appropriate for these areas.
- Future land use plans propose infill development and redevelopment to increase mixed uses and higher-density development along multimodal corridors throughout much of the county. In the longer term, this will promote transit use and make it easier to more efficiently serve these areas with transit.





Section 3 Evaluation of Existing Transit Services

This section provides an overview of PSTA's existing services and analyzes its operational performance. A peer agency review also was conducted to gain insights about PSTA's performance compared to selected similarly sized transit operators. The results of these analyses provide a foundation for the recommended system changes and future additions to the system described later in this report.

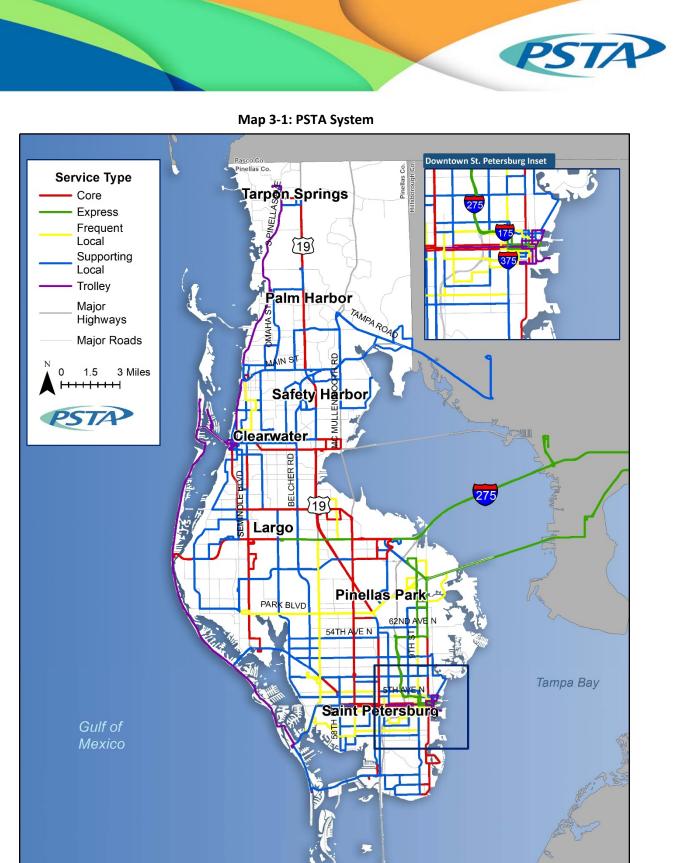
Existing Service Overview

PSTA serves 22 of the 25 municipalities in Pinellas County as well as unincorporated areas (service is not provided within Belleair Beach, Belleair Shores or Kenneth City). PSTA's network can be generally categorized as a hub-and-spoke system with four major hubs—downtown St. Petersburg, Grand Central Station in St. Petersburg, the Pinellas Park Transit Center, and the Park Street Terminal in downtown Clearwater. Map 3-1 provides an overview of PSTA's service area.

In addition to the public transportation service provided throughout Pinellas County, PSTA provides regional service to parts of Tampa and Hillsborough County. As of June 2019, the PSTA system, including services operated by partner agencies, consisted of the following transit services:

- 44 bus routes across PSTA's service area, including 2 express routes to Tampa, and 4 contracted trolley routes.
- Contracted DART paratransit service.
- Mobility-on-Demand Program, a grant-funded pilot program to provide same day on-demand door-to-door trips for DART clients.
- Transportation Disadvantaged (TD) Program providing low-cost bus passes for people with lower incomes as defined by TD Program guidelines.
- Direct Connect Program providing discounted first/last mile transportation to/from 26 designated locations along higher-frequency routes.
- Healthy Hop on-demand service in the Tarpon Springs area for older adults to get to medical appointments.
- TD Late Shift program providing on-demand late night/early morning transportation for workers in PSTA's TD Program who use the regular bus system during daytime.
- TD Direct Connect providing a higher discount for TD bus riders to improve their access to the Direct Connect program.







Source: PSTA

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Hillsborough Co Manatee Co.





Fixed-Route Services

PSTA directly operates 36 local fixed-route bus routes, 2 trolley routes, and 2 express routes that connect to downtown Tampa. PSTA's intra-county bus routes mostly operate local, all-stops service, with no branching, limited alternate alignments, and only one limited stop service overlaid on a local corridor during peak hours.

Local Fixed-Route Service

Local fixed-route service is operated Monday through Friday between 5:00 AM and 1:00 AM, Saturdays between 5:30 AM and 1:00 AM, and Sundays and major holidays between 5:45 AM and 12:00 AM. Service frequency is low-to-moderate, ranging from 60- to 15-minute headways, with higher peak-period frequencies on many routes.

Trolleys

The Central Avenue Trolley is one of PSTA's most popular routes. It operates between downtown St. Petersburg and St. Pete Beach in western Pinellas County via Central Avenue and connects many important destinations along its route. The service is a combination of routes previously served by the Pier Trolley, the Looper Group's Central Avenue Shuttle, PSTA's Route 35, and the Suncoast Beach Trolley. On weekdays, the route operates between 6:00 AM and 1:00 AM. The Central Avenue Trolley operates 20-minute headways during the day and 30 minutes during evenings and nights. On weekends and holidays, the route also operates between 6:00 AM and 1:00 AM, but at 30-minute headways all day.

PSTA also provides service to the barrier island communities of Pinellas County between downtown Clearwater south to St. Pete Beach via the branded Suncoast Beach Trolley, including Indian Shores, Redington Beach, Madeira Beach, and Treasure Island. The route operates between 5:00 AM and 1:00 AM daily at 30-minute headways.

Express Bus

PSTA's two express routes operate between Pinellas County and downtown Tampa. Route 100X operates between downtown St. Petersburg and downtown Tampa via Gateway Mall. Route 300X operates between the Ulmerton Road Park-and-Ride in Largo and downtown Tampa via Tampa International Airport. Service is operated Monday through Friday all day from 4:45 AM to 9:00 PM on Route 100X and 6:00 AM to 9:00 PM on Route 300X, with more frequent service during peak periods and one or two midday trips in both directions. No express service is operated on weekends or major holidays.

Partner Services

Several other fixed-route transit services in Pinellas County are operated by private contractors on behalf of PSTA and are marketed and scheduled with PSTA services to form a comprehensive network. This includes three Jolley Trolley routes that serve Clearwater Beach, including one with service to



Tarpon Springs. It also includes the St. Petersburg Downtown Looper trolley which operates within downtown St. Petersburg and serves various retail centers, tourist attractions, and bars and restaurants in the area.

Fixed-Route Fare Structure

PSTA's fixed-route fare structure is presented in Table 3-1 and includes 1-Day, 3-Day, 7-Day, and 31-Day unlimited ride pass options. Reduced fares are available for older adults (age 65+), people with disabilities, Medicare cardholders, and adult students and youth (age 18 and younger). Children age 5 and younger ridefree. Cash fares on local fixed routes do not include transfers; for transfers, PSTA recommends purchasing a GO Card, which allows unlimited rides for the number of days for which the pass is eligible; the Regional GO Card allows unlimited rides for 1, 3, or 7 consecutive days for express bus routes.

PSTA, in partnership with HART, is moving toward a new fare payment system, Flamingo Fares, which includes a smart card and mobile app as well as a new fare structure. Phase I of Flamingo Fares is currently in beta testing. The new fare structure, which includes fare capping, that will be implemented with Flamingo Fares is detailed in Table 3-2. Current fare types will be phased out as the Flamingo Fare System is implemented allowing current pass users to transition to the new system and fare options. The regional passport allowing for unlimited monthly rides on the PSTA and HART systems will be maintained. PSTA riders using the HART system less frequently will pay the HART fare for those rides.

Fare Category	Cash 1 Ride	1-Day	3-Day	7-Day	31-Day
Children (age 5 and under)	Free				
Regular	\$2.25	\$5.00	\$10.00	\$25.00	\$70.00
Reduced	\$1.10	\$2.50	\$5.00	\$12.50	\$35.00
Regional (100X and 300X)**	\$3.00	\$6.00	\$18.00	\$30.00	\$85.00
Regional Reduced	\$1.50				
Flamingo Fares			\$18.00	\$25.00	\$8.500
Central Avenue Trolley	Varies*				

Table 3-1: PSTA Fixed-Route Fare Structure

*PSTA uses a zonal fare system on the Central Avenue Trolley. On the eastern end of the route in downtown St. Petersburg and near Tampa Bay, there is a free fare zone between 2nd Street N and 3rd Street N along both Central Avenue and 1st Avenue N; no fare is charged for trips that both begin and end in this area. Along Central Avenue between 3rd St and Grand Central Station on 32nd Street, the fare for all riders is \$0.50 per ride; west of Grand Central Station to the western terminus of the Central Avenue Trolley along Gulf Boulevard on St. Pete Beach, normal one-way fares of \$2.25 per ride and \$1.10 for reduced fares eligible riders apply. GO and Regional GO Cards and all Flamingo Fares are accepted on the Central Avenue Trolley. **Phased out as of January 2020.





Table 3-2: PSTA Fixed-Route Fare Structure

Fore Cohorowy	PSTA Flamingo Fares - Proposed			
Fare Category	Cash 1 Ride	1-Day	Calendar Month	
Children (age 5 and under)	Free			
Regular	\$2.25	\$5.00*	\$70.00*	
Reduced	\$1.10	\$2.50*	\$35.00*	
Group Pass (up to 5 people)		\$10.00**		
Passport (PSTA and HART)			\$85.00	
DART	\$4.50			

*Best value maximum within designated time period (fare capping).

**Sold on mobile app only. The Group fare allows up to 5 people, regardless of age or familial association, to ride for one service day as a group from 5:00–2:00 AM.

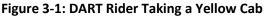
Source: PSTA Finance Department

On-Demand Services and Programs

Transportation Disadvantaged (TD) Services, TD Late Shift Program, and TD Direct Connect Program

PSTA, in cooperation with the State of Florida, offers the TD Program to provide reduced cost transit to qualified Pinellas County residents. To qualify for the program, riders must be a resident of Pinellas County, have an annual income below 150% of the poverty level based on household size, and be unable to regularly depend on others for transportation. Eligible riders can purchase a 10-day non-consecutive TD bus pass for \$5 per month or a 31-one day TD Bus Pass for \$11. As an add-on, for an additional \$9 per month, PSTA also offers TD Late Shift, which provides 25 free on-demand trips per month using Uber or taxi services to allow riders to get to/from work overnight, when PSTA buses are not operating (i.e.,





10:00 PM to 6:00 AM). TD Late Shift can be combined with the monthly pass, bringing the cost for both the 31-day TD bus pass and the TD Late Shift program to \$20 per month. Users of the TD Program have access to the TD Direct Connect program, which provides discounted rides to and from 26 Direct Connect locations along higher frequency bus routes. The program operates like the regular Direct Connect program but with increased subsidies for TD riders (\$9 for Uber or taxi and \$32 for wheelchair van service).

Direct Connect

In addition to the TD Late Shift program, PSTA offers its Direct Connect program that also leverages relationships with local taxi operators and the Transportation Network Company (TNC) Uber to provide cost-effective alternatives for the specialized needs of riders. The Direct Connect program offers alternative first/last mile service for customers whose point of origin or destination is not easily accessible using conventional transit services. In partnership with Uber, United Taxi, and Wheelchair





Transport, PSTA subsidizes fares for customers to ride to or from the closest Direct Connect location to close the gap on the first or last mile of their trip. Riders can request a ride using the Uber app or by calling either the United Taxi or Wheelchair Transport call center to request a ride to or from a Direct Connect location. PSTA subsidizes the first \$5 (\$25 for Wheelchair Transport) of the trip, with the rider responsible for the balance of the trip's cost after the subsidy. An additional subsidy is provided to TD customers (TD Direct Connect program). There are 26 Direct Connect locations at PSTA transit and transfer centers throughout the county, at which customers can transfer to PSTA fixed-route bus services to complete longer trips (Figure 3-2).

Healthy Hop

The Healthy Hop program is a partnership between PSTA, Advent Health North Pinellas, and the City of Tarpon Springs. This program offers both on-demand or prescheduled rides between home and health destinations throughout Tarpon Springs for low-income riders age 65+. Eligible trips are free and must begin and end within Tarpon Springs. Qualified riders may take two round trips or four one-way trips per month.

Demand Response Transportation (DART) Paratransit Service

Customers with disabilities that prevent them from using the fixed-route bus system are eligible to use PSTA's Demand Response Transportation (DART) service, which provides demand-response, door-to-door service between any two locations within Pinellas County. DART service meets PSTA's obligations to provide door-to-door service that parallels or "complements" local bus service in accordance with the Americans with Disabilities Act (ADA).

Through a contract with PSTA, a private contractor, Care Ride LLC, operates a service through which customers are certified by PSTA to use DART based on their inability to travel independently to and from a bus stop. Eligible customers must schedule DART trips by 5:00 PM the day before travel, and passenger fare is \$4.50 for this door-to-door service. DART service is available during regular fixed-route bus operating hours, approximately 5:00 AM to 1:00 AM daily. The DART service area is shown in Map 3-2.

Mobility on Demand (MOD) Program

PSTA provides same day, on-demand trips to eligible DART riders via Lyft, taxi, or wheelchair van service. Services may be curb-to-curb or door-to-door depending on the needs of the rider. The MOD program operates within the regular DART service area with service from Monday through Saturday from 7:00 AM to 7:00 PM.





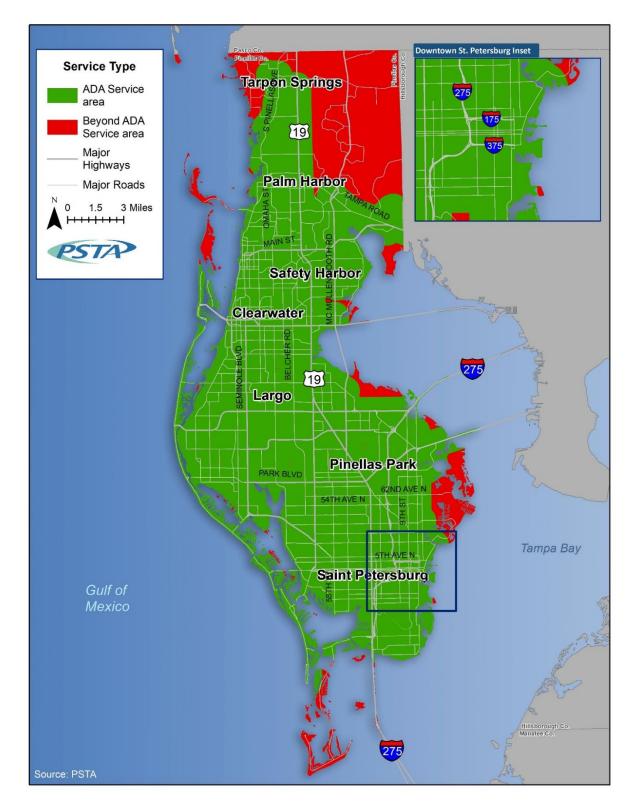


Figure 3-2: PSTA Direct Connect Locations

Source: https://www.psta.net/riding-psta/direct-connect/









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Transit Hubs

PSTA's main hub is at Grand Central Station, located between 1st Avenue S and Central Avenue N and between 31st Street S and 34th Street S, west of downtown St. Petersburg (Figure 3-3). Twelve local fixed-routes and the Central Avenue Trolley connect to Grand Central Station, providing connections to other routes serving downtown St. Petersburg, St. Pete Beach and other destinations throughout the county. PSTA also operates a hub at Park Street Terminal, located along S Garden Avenue between Park Street and Pierce Street in downtown Clearwater. Eleven local routes and the two Jolley Trolley routes serve the Park Street Terminal, providing access to downtown Clearwater and connections to routes serving northern Pinellas County.

Figure 3-3: Grand Central Station



PSTA also operates smaller transfer centers throughout the county to facilitate route connections, which are generally located at or near shopping malls and other destinations where several routes can meet off-street to facilitate transfers and park in a safe location during operator layovers:

- Clearwater Mall serves 2 routes
- Gateway Mall serves 7 routes
- Largo Mall serves 2 routes
- Largo Transit Center serves 5 routes
- Pinellas Park Transit Center serves 6 routes
- PSTA 34th Street Terminal serves 5 routes
- Seminole City Center serves 4 routes
- Tyrone Square Mall serves 12 routes
- Westfield Countryside Mall serves 9 routes





PSTA Route Classification

PSTA has designed a hierarchy of bus service classifications based on services levels (e.g., frequency, service span, amenities, etc.) to use in the planning and implementation of service standards to measure a route's operations performance. This differs from the traditional route classifications in the National Transit Database (NTD), which provide only basic and broad route classifications such as, in PSTA's case, local bus and commuter express to describe its route structure. PSTA's route classifications include the following:

- Core the highest-performing and highest ridership routes in the system that operate along
 important corridors within the county. These routes operate with the highest level of service,
 which includes high frequency and long service spans and are generally prioritized highest for
 improvements such as transit signal priority (TSP) and new amenities that help with service
 reliability and improve the customers experience.
- **Frequent Local** high-performing and ridership routes that connect important activity centers in the county and operate along growing corridors in the county. These routes operate with a high level of service, with some fluctuations between peak, midday, and evening service.
- Supporting Local local routes that provide connectivity to neighborhoods with the intention of connecting riders to core or frequent local routes to complete their trips when necessary. They generally operate with a basic level of service (60 minutes) throughout the day but may have increased frequencies during peak times when warranted or may not have midday or evening service when historical ridership is low during these times.
- **Trolley** routes that are tailored to serve major tourist and entertainment destinations throughout the county, including downtown St. Petersburg, the Central Avenue corridor, and the various beach communities along Gulf Boulevard. They operate with a medium to high level of frequency, with longer service spans on Fridays and Saturdays.
- **Express** routes that provide express service to/from Tampa with the intention of connecting commuters who work in downtown Tampa or vice versa. These routes are open to the general public and service is provided all day. Service now includes Tampa International Airport and can be used by residents to travel between Pinellas County and the airport, in addition to downtown Tampa.

Routes by classification are presented in Table 3-3. This system review analyzes the PSTA transit network at the route classification level. The Performance Monitoring System can be found in Appendix A.





Table 3-3: PSTA Route Classification

Classification	Routes
Core (8)	Routes 4, 18, 19, 34, 52, 52LX, 59, 60
Frequent Local (8)	Routes 7, 9, 11, 14, 78, 79
Supporting Local (21)	Routes 5, 15, 16, 20, 22, 23, 32, 38, 58, 61, 62, 65, 66L, 67, 68, 73, 75, 76, 90, 812, 813, 814
Trolley (5)	Central Avenue Trolley, Jolley Trolley Beach Routes, Jolley Trolley Coastal Route, Downtown Looper, Suncoast Beach Trolley
Express (2)	Routes 100X, 300X

Note: Italicized routes operated by partner agency. Source: PSTA

Performance Trends

Historical System Ridership

The PSTA system, including fixed-route service (local routes, express routes, and trolleys operated by PSTA and its partners) and demand-response, provided nearly 12 million trips in 2019 (Figure 3-4).

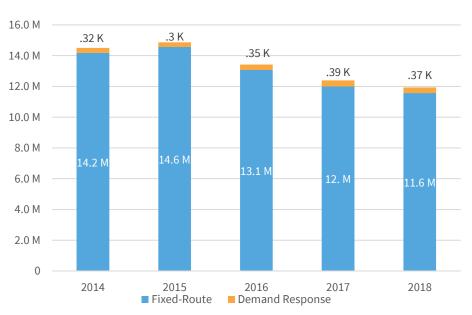


Figure 3-4: PSTA System Ridership (2014–2018)

Source: NTD data obtained from Florida Transit Information System (FTIS) for 2014–2018 data; NTD's Transit Agency Profile for 2018 data.

Fixed-Route Performance

This section documents performance trends for key operating characteristics of PSTA's fixed routes, including those operated by partner agencies.



Ridership

In FY 2019, PSTA's fixed-route ridership (unlinked passenger trips) totaled 11.2 million. Over the past 10 years, the fixed-route ridership grew in the first 5 years from 12.8 million in FY 2009 to 14.6 million in FY 2015, an increase of nearly 1.8 million trips or nearly 14% (Figure 3-5). After FY 2015, annual ridership slowly decreased to 11.2 million trips in FY 2019, a net decrease of 1.5 million trips or 14% during the 10 years. PSTA's ridership decline of 1.5 million trips between 2015 and 2016 and an additional 1 million in 2017 coincides with and is at least partially due to fare increases in late 2015, followed by reductions in service volume and route realignments in both 2016 and 2017. The ridership decline is also consistent with industry-wide ridership declines over the same period. Ridership in 2020 is expected to show a sharp decline due to the COVID-19 outbreak and service reduction due to "safer at home" ordinances.

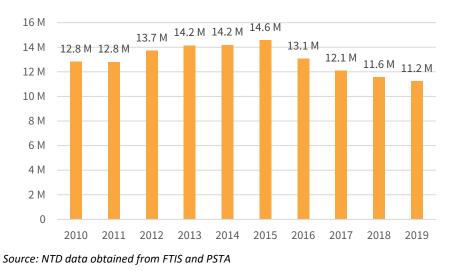




Table 3-4 presents the change in ridership from 2018 to 2019 by route classification and Table 3-5 presents the 2019 ridership by route. Over the past year, fixed-route ridership decreased by nearly 320,000 trips, nearly 3%, and the percentage of total ridership for core routes increased slightly between 2018 and 2019. The percentage of frequent local collectively declined, but this can be partly attributed to several routes ending service in 2018. The percentage of express routes to total ridership stayed the same, and the percentage of trolley ridership increased by more than 150,000 over the year. PSTA's ridership follows the national trends during this period.

		•	•	•	•
Route Classification	FY 2018	Percentage	2019 Total	Percentage	Difference
Core	5,437,902	47.0%	5,437,100	48.3%	(802)
Frequent Local	2,129,954	18.4%	1,782,631	15.8%	(347,323)
Supporting Local	2,089,219	18.1%	1,967,535	17.5%	(121,684)
Express	79,024	0.7%	79,149	0.7%	125
Trolley	1,829,903	15.8%	1,982,276	17.6%	152,373
Total	11,566,002	100.0%	11,248,691	100.0%	(317,311)

Table 3-4: PSTA Total Annual Ridership by Route Classification (2018–2019)

Source: PSTA





Table 3-5: PSTA Ridership by Route (2019)

Rank	Route	Route Classification	Total Trips	
1	52	Core	1,085,151	
2	18	Core	1,064,035	44% of all PSTA fixed-
3	Central Avenue Trolley	Trolley	1,007,779	route trips in 2019
4	34	Core	913,299	Toute trips in 2019
5	4	Core	847,125	
6	Suncoast Beach Trolley	Trolley	585,183	
7	19	Core	505,714	
8	59	Core	482,489	
9	79	Frequent Local	453,288	
10	60	Core	424,978	
11	14	Frequent Local	400,221	
12	9	Frequent Local	298,103	
13	78	Frequent Local	248,272	
14	11	Frequent Local	235,950	
15	Jolley Trolley Coastal	Trolley	217,779	
16	61	Supporting Local	181,583	
17	15	Supporting Local	163,286	
18	62	Supporting Local	159,814	
19	23	Supporting Local	159,784	
20	20	Supporting Local	150,588	
21	7	Frequent Local	146,797	
22	75	Supporting Local	138,536	Median
23	5	Supporting Local	132,188	
24	Jolley Trolley Beach	Trolley	117,916	
25	38	Supporting Local	117,321	
26	52LX	Core	114,309	
27	73	Supporting Local	103,119	
28	67	Supporting Local	98,251	
29	76	Supporting Local	97,656	
30	65	Supporting Local	82,245	
31	16	Supporting Local	67,772	
32	68	Supporting Local	64,580	
33	66L	Supporting Local	61,524	
34	Downtown Looper	Trolley	53,619	
35	100X	Express	49,444	
36	58	Supporting Local	46,820	
37	32	Supporting Local	33,893	
38	22	Supporting Local	33,347	
39	300X	Express	29,705	
40	90	Supporting Local	26,614	
41	812	Supporting Local	21,698	1% of all PSTA fixed-
42	814	Supporting Local	14,928	route trips in 2019
43	813	Supporting Local	11,988	
Source: PSTA			,	

Source: PSTA







Route Performance – Passengers per Revenue Hour

The key performance metric that measures the efficiency of a route is passenger per revenue hour, or the ratio of total passengers carried on a route over the number of hours of revenue service operated to carry these passengers. In 2019, PSTA operated more than 674,000 revenue hours. With 11.2 million fixed-route trips, PSTA carried an average of 16.7 passengers per revenue hour (Table 3-6).

Route Classification	Passengers per Revenue Hour
Core	20.6
Frequent Local	17.2
Supporting Local	11.2
Express	5.1
Trolley	17.2
PSTA System Overall	16.7

Table 3-6: Passengers per Revenue	Hour by Route Classification (2019)
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Source: PSTA

In 2019, PSTA's core routes had the highest productivity, at nearly 21 passengers per revenue hour. Although these routes carry the largest number of passenger trips, they also operate higher-frequency service and over a longer service span, which reduces their average productivity to levels closer to other route classifications with lower ridership. PSTA's trolley routes and frequent local routes exhibited similar productivity, at 17.2 passenger trips per revenue hour. Like core routes, trolleys tend to operate along major corridors and connect very important activity centers at higher frequencies. In this case, PSTA trolleys operate along important beach corridors and, with the Central Avenue Trolley, connect downtown St. Petersburg with the beach communities to the bars, restaurants, retail and entertainment attractions along Central Avenue.

Express routes have the lowest average passengers per revenue mile; however, these routes have long distances and cater to a specific rider market that travels primarily during peak periods.

The three highest-productivity routes per hour are Route 60, the Central Avenue Trolley, and Route 34, at 30.0, 24.9, and 24.4 passenger trips per revenue hour, respectively (Table 3-7). The top five routes all carry at least 20 passenger trips per revenue hour and, with a median of 24.4 (Route 34), half of all PSTA routes carry at least 13.68 trips per revenue hour, the systemwide median.



Rank	Route	Route Classification	Passengers per Revenue Hour
1	60	Core	30.0
2	Central Avenue Trolley	Trolley	24.9
3	34	Core	24.4
4	52	Core	23.0
5	78	Frequent Local	21.4
6	18	Core	19.4
7	19	Core	18.9
8	4	Core	18.7
9	15	Supporting Local	18.1
10	14	Frequent Local	18.1
11	9	Frequent Local	17.9
12	66L	Supporting Local	17.6
13	Suncoast Beach Trolley	Trolley	17.2
14		Frequent Local	16.8
15	52LX	Core	16.0
16	90	Supporting Local	15.9
17	59	Core	15.4
18	79	Frequent Local	15.3
19	7	Frequent Local	15.0
20	20	Supporting Local	14.7
21	Jolley Trolley Coastal	Trolley	14.0
22	32	Supporting Local	13.6
23	75	Supporting Local	13.6
24	62	Supporting Local	13.2
25	5	Supporting Local	13.0
26	76	Supporting Local	13.0
27	73	Supporting Local	13.0
28	67	Supporting Local	12.9
29	38	Supporting Local	12.3
30	16	Supporting Local	12.2
31	68	Supporting Local	11.5
32	61	Supporting Local	10.2
33	23	Supporting Local	9.3
34	65	Supporting Local	9.3
35	Jolley Trolley Beach	Trolley	8.0
36	58	Supporting Local	7.4
37	22	Supporting Local	7.3
38	100X	Express	5.4
39	Downtown Looper	Trolley	5.3
40	814	Supporting Local	4.6
41	300X	Express	4.5
42	812	Supporting Local	2.7
43	813	Supporting Local	1.9
Source: PSTA		0	

Table 3-7: Passengers per Revenue Hour by Route (2019)

Source: PSTA



3-15

PSTA



Route Performance – Passengers per Revenue Mile

Another performance metric that measures the efficiency of a route is passenger per revenue mile, the ratio of total passengers carried on a route over the total number of miles in revenue service operated to carry these passengers. In 2019, PSTA operated more than just under nine million revenue miles of service. With 11.2 million fixed-route trips, PSTA carried an average of 1.25 passenger trips per revenue mile (Table 3-8).

Route Classification	Passengers per Revenue Mile		
Core	1.56		
Frequent Local	1.36		
Supporting Local	0.81		
Express	0.29		
Trolley	1.34		
PSTA System Overall	1.25		
Source: PSTA			

Table 3-8: Passengers per Revenue Mile by Route Classification (2019)

In 2019, PSTA's core routes had the highest number of passengers per revenue mile at 1.56. Frequent local and trolley routes followed at 1.36 and 1.34 passengers per revenue mile, respectively.

As shown in Table 3-9, the three routes with the highest productivity by revenue mile all carry near or more than 2 passengers per revenue mile, with Route 60 carrying the most at 3.02 passengers per revenue mile. Five routes share the median at 1.03. The two inter-county express routes also have low productivity per mile, at 0.31 and 0.26 passenger trips per revenue mile for the 100X and 300X routes, respectively, due to the long distance over which these routes operate.



Rank	Route	Route Classification	Passengers per Revenue Hour
1	60	Core	3.02
2	Central Avenue Trolley	Trolley	2.37
3	34	Core	1.97
4	52	Core	1.73
5	32	Supporting Local	1.67
6	14	Frequent Local	1.62
7	15	Supporting Local	1.62
8	78	Frequent Local	1.57
9	18	Core	1.57
10	9	Frequent Local	1.34
10	7	Frequent Local	1.34
11	4	Core	1.32
12	19		1.30
13	19	Core	1.28
14	59	Frequent Local Core	1.19
	79		1.19
16 17	79	Frequent Local	
		Supporting Local	1.16
18	66L	Supporting Local	1.11
19	20	Supporting Local	1.10
20	16	Supporting Local	1.08
21	75	Supporting Local	1.04
22	Jolley Trolley Coastal	Trolley	1.03
23	52LX	Core	1.01
24	Suncoast Beach Trolley	Trolley	0.98
25	5	Supporting Local	0.97
26	90	Supporting Local	0.88
27	61	Supporting Local	0.87
28	38	Supporting Local	0.84
29	62	Supporting Local	0.84
30	73	Supporting Local	0.82
31	Downtown Looper	Trolley	0.77
32	67	Supporting Local	0.76
33	68	Supporting Local	0.72
34	23	Supporting Local	0.70
35	Jolley Trolley Beach	Trolley	0.68
36	65	Supporting Local	0.60
37	22	Supporting Local	0.56
38	58	Supporting Local	0.42
39	814	Supporting Local	0.33
40	100X	Express	0.31
41	300X	Express	0.26
42	812	Supporting Local	0.19
43	813	Supporting Local	0.13

Table 3-9: Passengers per Revenue Mile by Route (2019)

Source: PSTA



3-17

PSTA



Transportation Disadvantaged Performance

As noted earlier in this section, PSTA, in cooperation with the State of Florida, offers TD services to provide reduced-cost transit to qualified Pinellas County residents who are unable to transport themselves or purchase transportation due to physical or mental disability, age, income status, and to at-risk children. PSTA is the current Community Transportation Coordinator (CTC) for Pinellas County and is responsible for running the day-to-day services provided by the TD Program. PSTA also coordinates with other agencies in the transportation system, including those receiving State TD funds and FTA Section 5310 funds.

Using data from the Florida Commission for the Transportation Disadvantaged (CTD) 2018 Annual Operating and Performance Report, historical trends for PSTA's TD population were reviewed. As shown in Figure 3-6, the number of TD trips provided increased by approximately 25,000 annual trips (8%) from 2014–2018. However, as of 2018, this still represents only 11% of the potential TD population. From 2014 to 2015, the decline in total trips can be attributed to TD funds no longer being used for Medicaid-funded trips. According to past Annual Operating Reports based on sampling data, the most common trip purpose in the trips provided by the coordinated system is medical, followed by employment. Because TD services are income-based, the geographic distribution of registered TD program participants greatly aligns with areas of higher concentrations of lower-income households in the county, notably south St. Petersburg and areas of Clearwater.⁷

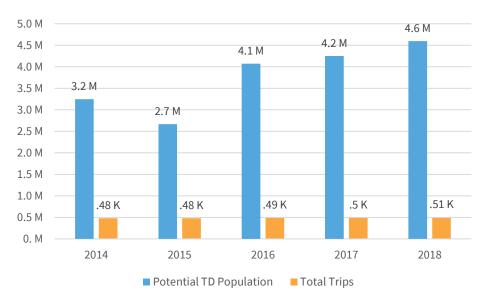


Figure 3-6: Transportation Disadvantaged Population Trends (2014–2018)

Source: Florida CTD 2018 Annual Operating Report

⁷ Pinellas County Transportation Disadvantaged Service Plan, 2017–2022 (May 2017).



Farebox Recovery

PSTA regularly monitors its farebox recovery ratio (ratio of fares collected to total operating costs) and evaluates potential enhancements to productivity and performance that would increase it. Table 3-10 shows the farebox recovery trends over the past 10 years. Although the ridership decline during this period contributed to the decrease in farebox recovery, PSTA did increase its fares in 2015; however, like many transit agencies, fare increases do not keep pace with inflation. As a result, operating costs over time greatly outpace fare revenue, reducing the overall percentage that fares can cover. A copy of the farebox recovery report is provided in Appendix B.

Fiscal Year	Total Expenses	Fare Revenue	Farebox Recovery
2008	\$50,981,021	\$11,298,758	22.60%
2009	\$51,494,018	\$11,500,513	22.30%
2010	\$49,811,888	\$10,845,845	21.80%
2011	\$49,747,458	\$12,572,895	25.30%
2012	\$49,505,055	\$14,029,482	27.90%
2013	\$54,044,243	\$13,839,582	25.61%
2014	\$54,647,577	\$13,276,487	24.06%
2015	\$55,469,915	\$12,193,394	21.79%
2016	\$56,844,151	\$11,777,978	18.99%
2017	\$62,181,580	\$10,838,756	15.33%
2018	\$64,923,769	\$9,201,574	14.17%
2019	\$67,012,203	\$9,863,606	14.72%

Table 3-10: Farebox Recovery

Source: PSTA Finance Department. Expenses based on financial audit reports and exclude depreciation and purchased transportation expenses.

Since the last TDP, activities conducted to enhance the farebox recovery ratio include the following:

- Fare increase PSTA implemented a fare increase in October 2015.
- Performance monitoring PSTA continuously monitors its route performance to determine whether adjustments need to be made (Appendix A). In October 2015 and February 2018, PSTA used its route performance monitoring system to support service modifications to address low performing routes. PSTA also regularly reviews route performance to make other service changes, which in recent years have included splitting routes to enhance service on higher performing sections and removing small route deviations that have a negative impact on a majority of the route riders.
- Public engagement PSTA encourages comments from the public to gain valuable information on how to make services more convenient and useful to patrons. By providing services that better meet the needs of its customers, PSTA can increase ridership. Increasing ridership can increase farebox recovery.
- Paratransit PSTA continues to increase ridership by transitioning passengers from paratransit service to fixed-route service.
- Marketing and public outreach PSTA's marketing and public outreach efforts, which include social media, special event promotions, collateral materials that provide information on services,





presentations to various markets, and participation in community events, help bring in additional passengers and revenue.

- Cost containment PSTA continues to work to limit expenses where possible to help increase its farebox recovery ratio.
- Farebox recovery farebox recovery decreased due to general ridership declines and the expansion of reduced cost pass programs resulting in lower per trip revenue and ridership in FYs 2017 and 2018. It marginally increased in FY 2019.

Service Performance Summary

The service and performance analyses identified several observations that are important to consider in the recommendations and future design of the PSTA system:

- The PSTA route network is truly multi-nodal and serves the far reaches of the county, requiring some riders to occasionally transfer at least twice to complete their trip.
- Many routes operate very long distances, and service can encompass multiple transfer hubs and transit centers
- Performance metrics indicate that many routes operate efficiently and carry a healthy load; however, several routes have lower productivity, and ridership on the system is declining.
- Many PSTA transfer hubs and transit centers are in or near large shopping malls and other retail centers. To a large extent, much of the system is oriented to connecting these retail centers; however, many retailers and retail centers are struggling, and being so heavily oriented toward and dependent on them could be a threat to PSTA's productivity, depending on how well they adapt to changing real estate market trends.
- PSTA provides very good geographic coverage throughout Pinellas County; however, some routes are circuitous and indirect, detracting from their potential.
- Forward Pinellas identifies several transit priority corridors, but few routes currently operate at the headways normally associated with priority service (i.e., 15 minutes or shorter).

Transit Agency Peer Review

A review of PSTA's peers was conducted to identify areas of the transit agency's operations that are performing well and where there are opportunities for improvement. Many different approaches can be taken to identify peer agencies for this type of analysis. In this case, six peer agencies from across the US were selected based on a combination of agency size (including peak number of buses, volume of service operated, operating budget, service area size (population and land area), geographic location (near medium or large-cities that operate both local and express services), and, most importantly, multi-nodal operations. The following agencies were identified as peers for PSTA:

- Central Ohio Transit Authority (COTA) Columbus, OH
- PalmTran Palm Beach County, FL
- Transit Authority of River City (TARC) Louisville, KY
- Indianapolis and Marion County Public Transportation (IndyGo) Indianapolis, IN



- Jacksonville Transportation Authority (JTA) Jacksonville, FL
- Delaware Transit Corporation (DART) State of Delaware

Ten metrics were included in the analysis to compare PSTA's level of service and performance with its identified peers for the motorbus mode. These metrics are a combination of operating, cost efficiency, productivity, and fare revenue measure, with all data drawn from the NTD for 2014–2018, the five most recent years available at the time of the analysis. A summary of the results is provided in Table 3-11. The complete set of tables created for this analysis and used to illustrate the agency's performance in comparison to its peers is included in Appendix C. The following provides an overview of the observations generated from this analysis.

Over the five-year period, PSTA ranked in the middle for unlinked passenger trips per revenue hour average, at around 17 riders per revenue hour. PSTA's passenger trips per revenue hour has slowly declined since 2016, from approximately 22 riders per hour to 17 in 2018. The other peer agencies saw similar declines after 2016, with agencies such as PalmTran, TARC, and DART seeing significant losses in ridership. PSTA fared better than most of the peers and ended 2018 with the third-highest number of unlinked trips per revenue hour, outpaced by TARC with approximately 21 riders per revenue hour and COTA with approximately 20 riders per revenue hour, despite TARC also experiencing heavy ridership losses.

PSTA had one of the lowest operating budgets of its peers, despite the annual budget growing to \$67 million. JTA had the second-highest operating budget in the five-year period ending 2018, with an operating budget of almost \$78 million for its local bus services, approximately \$11 million higher than PSTA's 2018 operating budget.

With its low operating budget, PSTA also had the lowest unit operating costs of all peer transit agencies in operating cost per revenue mile and per revenue hour. PSTA had high volumes of service operated (both in revenue vehicle miles and hours) and the second highest farebox recovery ratio of all the peers, at approximately 14.72% (marginally below TARC's 14.75%), whereas all other agency farebox recovery rates were 12–13%. Additionally, PSTA had one of the lowest subsidies per unlinked bus passenger trip, at \$4.96, compared to more than \$7 per passenger trip for most peer agencies.

Overall, PSTA had average productivity rates among its peers, which fell towards the latter half of the five-year time horizon, as PSTA, like most transit agencies, experienced ridership declines since around 2014. PSTA's operating expenses are low compared to its peers, which helps keep its financial and performance metrics relatively favorable. This is partially offset by the high volume of service it operates throughout the county, including in areas with low densities that result in lower productivity.





Table 3-11: Peer Analysis Summary

Metric	PSTA % from Mean (2018)
Service Area (Sq. Miles)	-53%
Service Area Population	5%
Vehicle Revenue Hours	3%
Vehicle Revenue Miles	4%
Unlinked Passenger Trips	4%
Unlinked Passenger Trips per Revenue Hour	0%
Unlinked Passenger Trips per Revenue Mile	0%
Operating Expense	-15%
Cost per Revenue Hour	-17%
Cost per Revenue Mile	-17%
Cost per Unlinked Passenger Trip	-18%
Vehicles Operated in Maximum Service	12%
Revenue Hours per Vehicle Operated in Maximum Service	-8%
Revenue Miles per Vehicle Operated in Maximum Service	-9%
Farebox Revenue	-8%
Farebox Recovery Ratio	6%
Farebox Revenue per Unlinked Passenger Trip	-13%
Subsidy per Unlinked Passenger Trip	-19%

Source: 2018 NTD Data obtained from FTIS.



Section 4 Public Outreach

Public Outreach Plan

Strategic Purpose

Public outreach was conducted to solicit information from Pinellas County residents and other stakeholders to help guide the planning process for the major update of PSTA's FY 2021-2030 TDP. As the foundation for this TDP is PSTA's 2018 Community Bus Plan, co-branded with the Forward Pinellas *Advantage Pinellas* plan, much of the public outreach associated with the TDP was conducted as a part of one of these two plans. The data gathered encompassed what aspects the public most desires from the transit system, such as greater bus frequency, more coverage, more weekend service, etc. and what the public desires in terms of a future vision for the transit network.

Outreach Goals

- Gather at least 1,000 responses from the various outreach activities to help maximize the efforts of PSTA's Planning Department in developing the Community Bus Plan and subsequent TDP update.
- Ensure that riders and participants, along with Pinellas County residents, know PSTA is responsive to their comments and needs in addition to being a good steward of tax dollars.
- Show Pinellas County residents and visitors that PSTA is a valuable, responsive, and engaged public service agency.

Public Outreach Activities

The outreach activities undertaken as a part of this TDP are summarized in this section. The activities were conducted in three separate phases:

- Phase 1: Program Development
- Phase 2: Public Comment on Proposed Recommendations
- Phase 3: Presentation of Revised Recommendations to PSTA Committees and Board

Phase 1: Program Development

On-Board Survey

PSTA conducted an on-board origin-destination survey in 2018 to gather passenger information by route and geographical area for origin, boarding, alighting, destination, trip purpose, access and egress modes, and various demographic characteristics. This information is used for planning and Title VI purposes.

A sampling plan and method were developed to ensure that the survey generated data with sufficient statistical precision and at sufficient confidence levels to support the route optimization elements of the community bus plan and to provide PSTA with a dataset to support ongoing planning of the system for the next several years. PSTA collected data for weekday operations for all fixed routes and weekday



and Saturday data for the six trolley services routes (Central Avenue Trolley, Downtown Looper, Jolley Trolley Beach Route, Jolley Trolley Coastal Routes, and Suncoast Beach Trolley).

The on-board survey was conducted in February and March 2018 and included the Tampa Bay region's peak tourist season during Spring Break. More than 5,000 survey responses were collected, representing approximately 9.25% of PSTA's weekday daily ridership and 5–10% of its weekend ridership on trolley services.

Profiles for fixed-route, express, and trolley riders based on the results of the on-board survey are presented in Figures 4-1, 4-2, and 4-3. More information collected from the on-board survey is included in Appendix D.

Other important characteristics of PSTA riders are summarized as follows:

- Fixed-route riders:
 - 40.5% of all trips are between home and work.
 - 30.5% of fixed-route riders pay their fare by cash, 19.3% using a 31-Day GO card, and 17.9% use a 31-Day TD card.
 - 64.6% of fixed-route riders use PSTA at least five days a week.
 - 96% of fixed-route riders are Pinellas County residents.
 - 14.2% of fixed-route riders are students (college or elementary school)
 - 90% of fixed-route riders speak English "well" or "very well."
- Express riders:
 - 70.7% of all trips are between home and work.
 - 40.6% of express riders pay their fare by cash and 44.2% use a Passport Monthly Pass.
 - 62.1% of express riders use the service five days a week.
 - 9.6% of express riders are not Pinellas County residents.
 - 50% of express riders used a vehicle for some portion of their trip.
 - 100% of express riders speak English "very well."
- Trolley riders:
 - 35.5% of all trips are for recreational/sightseeing purposes.
 - 42.8% of trolley riders pay their fare by cash, 23.7% use a 1-Day GO Card.
 - 37.2% of trolley riders use the trolley on their visit to the area.
 - 46.4% of trolley riders are not Pinellas County residents.
 - 29.3% of trolley riders would use a TNC (e.g., Uber, Lyft, etc.) if transit was not available;
 16.5% would not make this trip.
 - 10.9% of trolley riders speak English "not well."



Figure 4-1: Fixed-Route Rider Profile

Survey Topic	Key Findings	Survey Responses	Fixed-Route Breakdown	Pinellas County Breakdown
Gender	Proportion of males on fixed route	Female	45.6%	52.0%
Identification	buses slightly higher than females.	Male	54.2%	48.0%
Rider Age Distribution	Most PSTA riders are in working age population group (18–64), about 86.3% of rider population. Share of older adult riders much lower than older adult population in Pinellas County.	Under age 16	1.1%	23.1%
		16-17	2.4%	
		18-24	12.9%	
		25-34	21.4%	12.1%
		35-44	17.8%	10.9%
		45-54	18.8%	13.7%
		55-64	15.4%	15.9%
		65-74	8.3%	13.1%
		75 and older	2.0%	11.1%
Total	62.1% of PSTA fixed-route riders have household income less than \$25,000 compared to only 23% of Pinellas County households.	Less than \$5,000	16.1%	23.0%
		\$5,000-\$9,999	8.2%	
		\$10,000-\$14,999	13.3%	
		\$15,000-\$19,999	12.3%	
		\$20,000-\$24,999	12.2%	
		\$25,000-\$29,999	10.4%	
Household	One-third of Pinellas County households report annual income over \$75,000 but make up only 2.1% of PSTA fixed-route riders.	\$30,000-\$39,999	11.7%	
Income		\$40,000-\$49,999	7.0%	
		\$50,000-\$59,999	4.2%	17.7%
		\$60,000-\$74,999	2.9%	
		\$75,000-\$99,999	1.1%	12.5%
		Over \$100,000	1.0%	21.3%
	Most PSTA fixed-route riders identify as White/Caucasian or Black/African American.	White/Caucasian	53.7%	82.6%
		Black/African		
		American	32.9%	11.1%
		Hispanic/Latino	7.8%	10.0%
Race/	Riders not white or black make up	Asian	1.8%	3.6%
Ethnicity	10% of fixed-route ridership, slightly less than Pinellas County population at 15%.	American Indian/ Native American	1.0%	0.4%
		Other	1.0%	-
		Two or more	1.5%	2.2%
Employment Status	Two-thirds of PSTA fixed-route riders are currently employed (either full or part-time).	Employed full-time	46.1%	N/A
		Employed part-time	21.6%	
		Not currently		
		employed	20.4%	
		Retired	12.0%	
Driver's License Status	Most PSTA fixed-route riders do not have a driver's license.	Have a license	43.6%	N/A
		Do not have a license	56.4%	



PSTA

Figure 4-2: Express Rider Profile

Survey Topic	Key Findings	Survey Responses	Fixed-Route Breakdown	Pinellas County Breakdown
Gender	Ratio of males and females on	Female	49.2%	52.0%
Identification	express routes is even.	Male	50.8%	48.0%
Rider Age Distribution	Virtually all riders on commuter routes are working age (25–64).	Under age 16	1.4%	23.1%
		16-17	0.0%	
		18-24	0.0%	
	Extension of 100X to downtown St. Petersburg and 300X to Tampa International Airport may draw non- workers to service.	25-34	18.9%	12.1%
		35-44	13.8%	10.9%
		45-54	32.8%	13.7%
		55-64	32.1%	15.9%
		65-74	1.0%	13.1%
		75 and older	0.0%	11.1%
	One-third of express riders have annual household income of \$60,000 or more.	Less than \$5,000	11.9%	23.0%
		\$5,000-\$9,999	4.6%	
		\$10,000-\$14,999	0.0%	
		\$15,000-\$19,999	8.4%	
-		\$20,000-\$24,999	0.0%	
Total Household Income	Only 25% of express riders report annual household income less than \$25,000 compared to 56% on fixed- route bus.	\$25,000-\$29,999	15.2%	25.5%
		\$30,000-\$39,999	2.8%	
		\$40,000-\$49,999	11.8%	
		\$50,000-\$59,999	11.4%	17.7%
		\$60,000-\$74,999	12.4%	
		\$75,000-\$99,999	13.7%	12.5%
		Over \$100,000	8.0%	21.3%
Race/Ethnicity	Almost two-thirds of express riders are White/Caucasian; the other one-third are Black/African American.	White/Caucasian	63.2%	82.6%
		Black/African American	34.5%	11.1%
		Hispanic/Latino	1.3%	10.0%
		Asian	0.0%	3.6%
		American Indian/ Native American	0.0%	0.4%
		Other	0.0%	-
		Two or more	1.0%	2.2%
Employment Status	Almost 80% of express riders are employed (full or part-time).	Employed full-time	73.5%	- N/A
		Employed part-time	5.6%	
		Not currently employed	19.5%	
		Retired	1.5%	
Driver's	Most PSTA express riders have a	Have a license	64.2%	
License Status	driver's license.	Do not have a license	35.8%	- N/A



PSTA

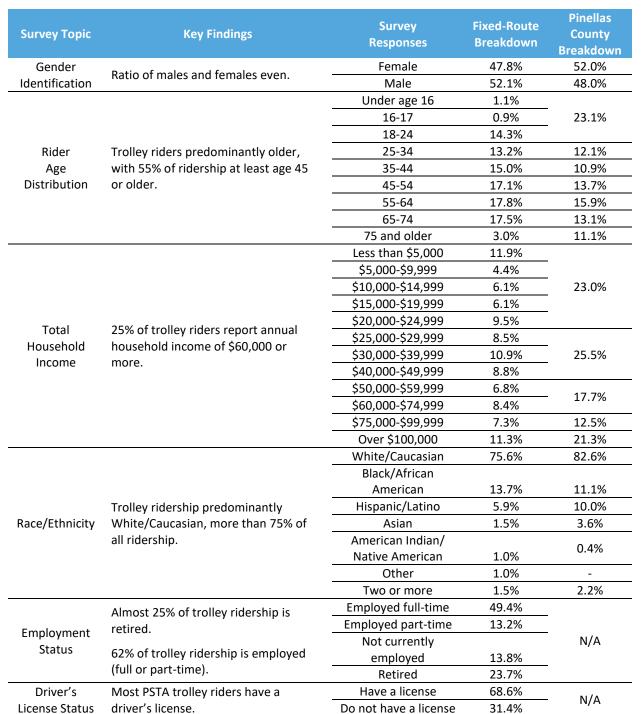


Figure 4-3: Trolley Rider Profile





"Get-on-Board" Game

The Outreach Team updates a very successful outreach tool used for the original Community Bus Plan, the "Get-on-Board" game. The game engages the public by giving them 10 fake \$1 bills and asking them to spend them in labeled boxes according to their wants and priorities choosing from:

- 1. More frequent service, less wait at stops
- 2. Better connections to other routes
- 3. Earlier morning service
- 4. Later evening service
- 5. More weekend services
- 6. Faster, more direct routes
- 7. More first/last mile services (i.e. Direct Connect)
- 8. On-time performance/reliability
- 9. Amenities (bus shelters, more bus stops)

Outreach Team members began taking the Get-on-Board game to the public at community meetings and at the PSTA major transfer points and terminals in June and July 2018. The Outreach Team also developed an online version of the game to be disseminated online via email, website, text, and social media.

Target participants for this game included:

- Residents/employees/businesses
- Current riders
- Potential riders (people open to using the bus if it is accessible)
- Partner organizations
- Seniors
- PSTA employees (bus operators and transportation supervisors)

PSTA engaged 210+ people with the Get-on-Board Game on 13 different days. The game was used at five transit centers, seven community events, and with PSTA's Transit Riders Advisory Committee (TRAC). PSTA collected 154 responses via Survey Monkey, including 140 detailed responses to the "other comments" question.

The resulting ranks for all improvements are provided in Figure 4-4. Observations from this effort include:

- The most requested improvements were more frequency and more evening service.
- Many respondents expressed the need for more frequency on Sundays across all routes.
- Bus stop amenities and first/last mile connections received the lowest average scores.





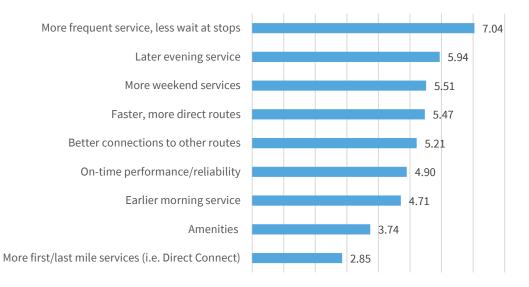


Figure 4-4: Get-on-Board Game Average Score by Improvement

Public Meetings

PSTA staff presented information about the Community Bus Plan scope and scenarios at 25 meetings. This included presentations to Forward Pinellas' Citizens Advisory Committee (CAC) and Technical Coordination Committee (TCC) in March 2018.

Social Media

PSTA engaged around 240 people through social media posts about various events and the Get-on-Board survey link. Around 30 comments were received via social media, as documented in Appendix D.

Phase 2: Public Comment on Draft Recommendations

During this phase, PSTA staff took the initial draft Community Bus Plan to the targeted audiences (e.g., riders, the general public, bus operators, transportation supervisors, etc.) to get their feedback on the plan developed in part from their input provided in Phase 1. Tactics and tools used were designed to, in part, repeat those used in the Phase 1. Additional venues and opportunities were also used as available to maximize feedback on the draft Community Bus Plan.

Rider Outreach

Outreach comments from presentations, community meetings, and the Get-on-Board Game were used to develop the draft Community Bus Plan recommendations. The recommendations centered on reallocating resources from low performing routes to higher performing routes. As such, PSTA conducted additional outreach with riders of the lower performing routes to better understand how these services were being used and whether other alternatives such as PSTA's Direct Connect program would work instead.

PSTA staff spoke with 700+ riders about the Direct Connect program and another 2,000 riders at bus stop transfer centers about the recommended service changes.





Digital and General Public Outreach

PSTA staff presented the draft plan to Forward Pinellas' Bicycle Pedestrian Advisory Committee (BPAC), the CAC and the TAC in September 2018. In November 2018, staff also presented to the TRAC.

Phase 3: Present Revised Recommendations

The Community Bus Plan was revised based on input received from Phase 2 and presented to the PSTA's TRAC three times, Planning Committee six times, and the Board three times in 2018. Additional public comments were received by the Board at these meetings. At its December 2018 meeting, the PSTA Board approved smaller changes to the route network and to keep most lower performing routes.

Internal Engagement Strategies

In addition to external engagement of riders, residents, etc. as outlined above, PSTA Planning Department staff conducted internal engagement to solicit comments from appropriate employees about proposed system-wide recommendations during the Community Bus Plan update process. Since bus operators and customer service representatives (CSRs) are the first point of contact for PSTA riders, they should be informed of all route recommendations including added, suspended, or altered service. Recommendations from the Community Bus Plan were conveyed to these employees after Board approval to more correctly direct rider comments, questions, and complaints.

Goals

- Gather information from employees on route and network performance, specific customer needs and preferences, and specific information on operational issues.
- Educate staff about the Community Bus Plan recommendations and provide an opportunity for them to give comments.
- Ensure staff are knowledgeable as to where to direct riders/public for more information.

Tools

- Focus groups with operators and CSRs
- Station table with maps, signs/posters, and comments box in Driver's Lounge
- Tabletop flyers
- Mailbox stuffers
- PowerPoint on TV screen
- Text/voicemail
- Seat drop

PSTA conducted six focus groups with operations staff, each containing nine people. One focus group included supervisors and the other eight were bus operators and mobility services staff. A summary of the input received from these focus groups is included in Appendix D.

PSTA also provided information to and collected comments from operations staff on plan recommendations by setting up informational tables that were staffed by planning and public outreach staff.





Transit Development Plan Update "Advantage Pinellas" Outreach

In coordination with Forward Pinellas' *Advantage Pinellas* outreach, data about transportation needs and the desired transportation network vision was gathered from Pinellas County citizens, businesses, and other stakeholders. Forward Pinellas conducted outreach at various community events, via online surveys, social media, and public meetings. The results helped to inform priorities recommendations for the *Advantage Pinellas* plan, which encompasses the entire transportation network. This outreach also provides PSTA with information on how the public prioritizes transit within that larger context.

Transit Development Plan Presentations

PSTA's FY 2021-2030 TDP major update was presented at the following public meetings prior to being adopted by the PSTA Board.

- PSTA Citizens Advisory Committee on February 26, 2020
- PSTA Technical Coordination Committee on February 27, 2020
- PSTA Transit Riders Advisory Committee on March 10, 2020
- PSTA Planning Committee on March 11, 2020
- Forward Pinellas Board on March 11, 2020



Section 5 Situation Appraisal

This section documents the situation appraisal completed for PSTA's 10-Year TDP. First, a review of various transportation planning and programming documents is presented to identify policies or issues that could impact the provision of public transit services in Pinellas County. Then, an assessment of PSTA's operating environment with respect to land use, State and local transportation plans, socioeconomic trends, organizational issues, technology, and public involvement is presented. The resulting situation appraisal serves as the basis for identifying PSTA's needs and future goals and objectives for the next 10 years.

Plans Review

Selected Federal, regional, State, and local plans, programs, and policies that influence transit operations, infrastructure, and policy were reviewed to understand the potential implications for PSTA. Findings from this review will help to ensure that this TDP is developed consistent with other applicable planning efforts and help PSTA to better understand its transit operating environment. The remainder of this section provides a summary of plans, programs, and studies reviewed for this effort and key considerations for the situation appraisal.

Local Plans and Studies

PSTA Organizational Performance Scorecard

The Organizational Performance Scorecard consists of five sections – community support, financial stability, customer satisfaction, employee engagement, and commitment to performance. Under each section is a set of quantitative metrics that can be compared with past results to show progress. For FY 2019, PSTA achieved nearly all its goals and obtained an overall performance ratio of 98/100. Performance goals set for community support, financial stability, customer satisfaction, and employee engagement strategies were achieved over the 12-month period. Performance related to the two goals under the commitment to performance strategy both achieved under 90% for the fiscal year. These goals relate to reaching 100% design for the Central Avenue BRT project later than September 30, 2019, and not achieving improvement in all key metrics established by the American Bus Benchmarking Group.

Advantage Pinellas – 2045 Pinellas County Long Range Transportation Plan (LRTP)

Advantage Pinellas is the county's strategic plan, which seeks to improve mobility and economic opportunity throughout the county. The plan provides guidance for Forward Pinellas in determining state as well as Federal funding allocations for transportation projects, by identifying the major transportation needs for communities through extensive local resident and stakeholder engagement. Some key themes from the engagement include the following:

- People want a safe, efficient transportation system.
 - Better-timed traffic signals are a top priority.
 - Residents are willing to exchange lower speeds for safer streets.



- People want easy access from their neighborhoods to their destinations.
 - Most people perceive that living within 20–30 minutes of their jobs as "very important."
 - Most people would like to see shops and destinations in or near their neighborhoods.
 - Most people believe that frequent and reliable transit brings economic benefits to an area.
- The biggest barriers to transit are reliability, frequency, and efficiency.
 - The most-requested improvement for transit is faster service, followed by more destinations/housing close to bus stops.

One of the surveys conducted was for the entire Tampa Bay area. Survey results included a number of transit service improvements that were prioritized using a multi-criteria evaluation process:

- New premium transit service improvements include Regional Rapid Transit on I-275, SR-54
 Premium Service (potentially BRT service in exclusive lane), US-19 Premium Bus Service, Bruce B.
 Downs/Wesley Chapel BRT, Dale Mabry/US-41 Premium Transit, and Regional Rail on US-41.
- New express service improvements include SR-54 Cross County Express, US-19 Express, Suncoast Express, Regional Express on I-75, Wesley Chapel/USF Express, Spring Hill Connector Limited Express, and SR-52 Cross County Express.

2016–2025 PSTA Transit Development Plan

Required by FDOT for transit agencies that receive State funding, the 2016–2025 TDP is an evolving document that serves as strategic guidance for public transit development in the county over the 10-year period. A major update to this plan is conducted every five years, with a progress report completed every year. PSTA lists seven goals in its 2016-2025 TDP:

- Provide customer-oriented public transit services.
- Develop a strong governance model for effective public transportation leadership.
- Provide effective, financially viable public transportation that supports our community.
- Develop a sustainable capital program.
- Implement customer-oriented service redesign.
- Incrementally expand transit service.
- Increase public transit access.

2020–2029 PSTA Transit Development Plan Annual Progress Report

The plan's 2020–2029 Progress Report identifies operating priorities, capital and planning priorities, and an implementation plan for the 10-year period. The 10-year operating priorities are:

- Improve frequency and span on core and frequent local routes.
- Complete the Central Avenue Bus Rapid Transit (BRT) project.
- Gradually transition to BRT on core routes.
- Enhance express routes.
- Enhance existing community circulator and build new autonomous vehicle (AV) circulator service.



• Expand innovative service programs (Direct Connect, TD Late Shift, Mobility on Demand, Healthy Hop).

The 10-year capital and planning priorities include:

- Make sustainable bus replacements.
- Complete Central Avenue BRT project (final design and construction).
- Participate in Tampa Bay regional farebox program (Flamingo Fare).
- Develop BRT on core routes.
- Identify opportunities for revenue vehicle expansion to accommodate new routes and service enhancements.
- Improve amenities/facilities.
- Implement advanced technologies.

The 10-year implementation plan includes the following:

- Continue the regularly scheduled program of amenity provisions and replacement based on priority needs.
- Continue rollout of a regional fare payment system that includes both smartcards and a mobile ticketing app.
- Continue regional service coordination with other transit agencies.
- Continue building and expanding the UPASS program and explore additional partnership opportunities with beach community employers with high concentrations of workers and visitors.
- Continue developing a park-and-ride program with improved permanent facilities and additional temporary facilities for special events.
- Continue working with local and regional transportation partners to prioritize transit projects as part of the multi-modal transportation network.
- PSTA's Legislative Committee should continue working directly with PSTA's Federal and State lobbyists to advance funding to implement priority projects.
- Continue advancing the agency-wide sustainability plan to achieve PSTA's environmental, financial, and social sustainability goals; prioritize the replacement of vehicles beyond useful life with hybrid-electric and all-electric buses.
- Continue partnership with local municipalities and organizations to expand service.
- Continue participating in local and regional transportation projects on project development, coordination, and review.
- Continue to ensure balance between purchasing environmentally sustainable buses and fiscal constraints.
- Continue implementing recommendations from the 2013 Community Bus Plan.
- Incrementally expand numerous transit improvements:

- Central Avenue BRT
- Downtown St. Petersburg Circulator
- Clearwater Beach to Tampa International Airport Express
- Downtown St. Petersburg to Downtown Tampa Express
- Downtown St. Petersburg to Tampa International Airport Express
- Clearwater Intermodal Center
- Evening, weekend, and frequency improvement on selected routes to have consistent service hours and frequency on weekdays, Saturdays, and Sundays
- Expand collaboration with rideshare services
- Continue participating in development of automated vehicle technologies and pilot projects

Countywide Land Use Plan

The purpose of the Countywide Plan is to coordinate countywide growth management issues and procedures, provide a framework for land use decision making in Pinellas County, and augment and complement local plans. The current plan, which took effect October 24, 2019, was prepared by Forward Pinellas in collaboration with local government partners and the Pinellas County Board of County Commissioners. It provides for a more streamlined amendment process and includes more future-oriented goals and strategies, integrating both land use and transportation planning, and fairly considering the planning needs of all 25 local governments in Pinellas County. The plan includes a transit-oriented land use vision that directs the future location of transit-oriented densities and intensities to activity centers and corridors served by transit and other multimodal transportation options. PSTA participated in the development of the transit-oriented land use vision map, which includes primary corridors consistent with PSTA's core routes, secondary corridors with PSTA's frequent local maps, etc.

FY 2017–2022 Transportation Disadvantaged Service Plan

PSTA serves as the CTC for the Pinellas County TD Program, which serves lower-income residents of the county who do not have access to their own transportation. The five-year Transportation Disadvantaged Service Plan (TDSP) is the guiding plan for Pinellas County's TD Program. It defines eligibility criteria for the program and describes the specific transportation services available to those who qualify, including discounted bus passes provided by PSTA and door-to-door transportation coordinated by PSTA and provided by contracted non-profit agencies and private providers. PSTA's current TDSP was completed in May 2019 and covers the five-year planning period of FYs 2017–2022. It documents that regional transportation connectivity is a priority and that the regional TD needs must be determined. It also notes that a regional agency, such as the Tampa Bay Area Regional Transit Authority (TBARTA), provides an avenue for regional transportation information to be identified, reviewed, and documented. Any improvement to the overall transportation system can benefit lower income persons, older adults and persons with disabilities and, therefore, the projects recommended by TBARTA as priorities can assist with the improvement of mobility for these populations.





FDOT and PSTA began a study in late 2015 on Bus on Shoulder (BOS) operations. Phase 1 of the study was completed in December 2016 and resulted in FDOT BOS Statewide Guidance. Phase 2 of the study kicked off in May 2017 and focused on using the BOS Statewide Guidance to implement the BOS pilot project along a five-mile segment of I-275 from downtown St. Petersburg to downtown Tampa. The results were documented in an April 2018 Final Report. The goals and objectives of BOS transit service on I-275 between I-375 and Gandy Boulevard include extending the PSTA express bus route 100X south of Gandy Blvd to downtown St. Petersburg (implemented in June 2018), increasing the average transit speed to provide improved route performance, supporting regional connectivity from St. Petersburg to Tampa, and improving operational efficiency by reducing bus circulating and stop time.

The benefit of implementing BOS is improved reliability and on-time performance with no major improvements needed to roadways. The cost of corridor improvement under the preferred alternative 2 is approximately \$2.4 million, with an additional \$3.2 million potentially needed for more buses, improving the park-and-ride lot, and adding ramp meters at busy interchanges. Design of the hardened shoulders is underway with construction expected to be complete in FY 2021. While no funding has been allocated to expand the routes along the corridor, the pilot project will move forward to enhance the existing service levels.

Forward Pinellas US-19 Express Bus Service Concept Plan Study

This study evaluated the feasibility of express bus service along US-19 by assessing travel demand and transit-supportive land uses along the corridor. US-19 is the county's primary north-south corridor and connects several vibrant activity centers and employment areas. The study recommended eight limited-stop express bus service options with an average speed of 20 mph, with five of these routes focusing on connecting the upper county to the Gateway Area and three connecting the Gateway Area with south St. Petersburg.

Forward Pinellas SR-60 Multimodal Implementation Plan

This plan studied SR-60, parallel roads, and the north-south connections between them to identify shortand long-term improvements for enhancing safety and mobility along the SR-60 corridor. The major outcomes of the plan are Complete Streets strategies, which, if fully implemented, would accommodate people using all modes of transportation regardless of age, ability, income, or race. The plan also recommends developing a premium express transit service from Clearwater Beach to Tampa International Airport and developing the Memorial Causeway Busway for trolleys and express transit service.

Forward Pinellas Transit Suitability Analysis

The Transit Suitability Analysis sought to improve the accessibility of destinations via various modes of travel and guide strategic transit investments through a multi-step examination. The plan's purpose was divided into three levels—develop a GIS-based methodology for identifying opportunities for improving multimodal accessibility, apply the methodology at the countywide scale to evaluate potential enhancements in walkability and transit utilization when changes are made to transfer points locations



and/or amenities, and select six transfer points for further evaluation and for more detailed conceptual design, planning, and implementation of improvements. The final recommended six transfer points are Countryside Mall, Clearwater Mall, Largo Mall, Downtown Largo, Tarpon Springs, and Downtown Oldsmar.

Forward Pinellas Complete Streets Program

Funded by Forward Pinellas, this program seeks to strengthen coordination between transportation and land use planning by using transportation investments as a catalyst to spur transformative redevelopment. Since introduction in 2016, the program has granted funding to multiple Complete Streets projects, both in concept planning and construction, including the 54th Avenue N Concept Plan, the Drew Street Concept Plan, the 34th Street S construction project, a concept plan for Skinner Boulevard in Dunedin, a south side east-west action plan in St. Petersburg, construction of Complete Streets treatments along St. Petersburg Drive in Oldsmar, and construction of Complete Streets treatments along Rosery Road in Largo.

FDOT/Forward Pinellas US-19 Pedestrian and Bicycle Safe Access to Transit Corridor Study

The study explored opportunities to improve safety and accessibility for pedestrians, bicyclists, and transit users along US-19 in central and northern Pinellas County without rethinking the design of the corridor by analyzing the existing roadway condition, land use, demographics and socio-economic data, crash data, transit, pedestrian and bicycle activity data. The study recommended a range of potential grade-separated alternatives that serve as a toolbox for future discussion and more detailed planning. In combining the pedestrian/bicycling alternatives with the transit service alternatives, the study developed a few potential transit access scenarios, including a roadway overpass with frontage road bus stops, a pedestrian overpass with shoulder bus stops, and a roadway overpass with mainline shoulder bus stops, and a roadway overpass with mainline median transit stops/stations.

Forward Pinellas Gateway Master Plan

The Gateway Master Plan creates a 25-year vision and strategy that guides the area's growth from a pure employment hub to a sustainable and resilient, connected, vibrant, economically-robust, equitable, smarter, and more innovative Gateway area with a variety of safe, healthy, affordable neighborhoods. Through analyses and public/stakeholder engagement, the Master Plan recommends several development concepts, including an eco-industrial park, a mixed-use employment district, a live/work district, and commercial corridors. Various toolkits and strategies are recommended in the Plan, including environmental resiliency toolkits to address risks such as rising sea level and flooding, multimodal circulation toolkits to improve active transportation and transit as well as short-, mid-, and long-term prioritization and strategies, economic development concepts, and sustainable infrastructure that addresses threats such as storm water.





Regional Plans and Studies

Envision 2030 – Tampa Bay Regional Transit Development Plan

Envision 2030 is the region's first regional transit development plan that provides vision and strategy in connecting the five counties within the TBARTA service area with all types of transit service. The plan seeks to achieve the following goals:

- Identify the best ways for regional transit to connect people and places in Tampa Bay.
- Develop a long-term strategy for TBARTA and its partners to make regional transit improvements over the next 10 years.
- Determine what types of regional transit work best, operationally and financially.
- Find ways TBARTA can better serve people right away.

Envision 2030 identifies short- and long-term improvements to regional transit services in Tampa Bay. Short-term improvements include enhancements to existing regionally significant routes that can be implemented within the next couple of years as funding is available and at a relatively low cost compared to new services. Long-term improvements include new services that will likely need a longer timeframe to develop and implement and may be a higher cost than the short-term improvements.

Proposed short-term improvements to existing PSTA routes are summarized in Table 5-1, and Table 5-2 summarizes the proposed long-term improvements within Pinellas County and for connecting Pinellas County to another county in TBARTA's service area.

Route Name/Description	Increased Frequency	New Weekend Service	Earlier/Later Service
100x	\checkmark	\checkmark	No change
19 Largo Transit Center/Tarpon Springs	\checkmark	\checkmark	No change
300 Express Service/Airport/Downtown Tampa	\checkmark	\checkmark	No change
34 St Petersburg/Largo Transit Center	\checkmark	No change	No change
OTC Oldsmar/Tampa Connector	\checkmark	\checkmark	\checkmark

Table 5-1: TBARTA Envision 2030 Proposed Short-Term Improvements for PSTA

Table 5-2: TBARTA Envision 2030 Proposed Long-Term Improvements for Pinellas County

Route Description	Mode Type	Counties Served
US-19 Express (PHSC* Spring Hill to Tarpon Mall)	Express	Pinellas, Pasco, Hernando
Clearwater Beach to TPA* Express	Express	Pinellas, Hillsborough
Central Ave BRT	BRT	Pinellas
East Bay BRT	BRT	Pinellas
Clearwater to St Pete	Rail	Pinellas
Regional Rapid Transit (RRT)	BRT	Pinellas, Hillsborough, Pasco
US-19 BRT N (Existing Rt 19)	BRT	Pinellas
US-19 BRT S (Existing Rt 34)	BRT	Pinellas
US-19 (Existing Rt 19)	Express	Pinellas
US-19 (Existing Rt 34)	Express	Pinellas





580 Regional Express	Express	Pinellas
Downtown to Downtown via Gandy	BRT	Pinellas, Hillsborough
Rail Downtown St Pete to I-275	Rail	Pinellas, Hillsborough
Cross-Bay Ferry	Ferry	Pinellas, Hillsborough
MacDill Airforce Base Commuter Ferry	Ferry	Pinellas, Hillsborough
MCAT Skyway ConneXion	Express	Pinellas, Manatee
Clearwater to Gateway	Rail	Pinellas

* PHSC = Pasco-Hernando State College; TPA = Tampa International Airport

TBARTA Regional Transit Feasibility Plan and Subsequent Regional Rapid Transit Project (I-275 PD&E)

This plan identifies the region's strongest corridors for potential transit service upgrades and sets a vision for their development. The plan reviewed more than 55 existing transportation plans and studies from over the past 30 years to identify projects proposed to achieve the goal of improving transportation options in the Tampa Bay area. Projects were evaluated using clearly defined criteria, and one "catalyst project" was identified for each potential transit corridor that has the greatest potential to be funded and implemented. An initial catalyst project was selected in this plan that recommends I-275 rubber-tire service from downtown St. Petersburg to Wesley Chapel. TBARTA has initiated a PD&E (Project Development and Environment) study to advance the catalyst project recommendation into the FTA Capital Investment Grant program. This project has been named the Regional Rapid Transit (RRT) project. Initial station locations identified for Pinellas County include downtown St. Petersburg, 62nd Avenue N, and the future Gateway Intermodal Center.

State Plans and Studies

Complete Streets Implementation Update: Handbook and Design Manual (2018)

In September 2014, FDOT adopted the Statewide Complete Streets Policy (Topic No. 000-625-017-a). Complete Streets serve the transportation needs of transportation system users of all ages and abilities, including pedestrians, bicyclists, transit riders, motorists, and freight handlers. A transportation system based on Complete Streets principles can help to promote safety, quality of life, and economic development. Implementing Complete Streets is an FDOT department-wide priority, and the *FDOT Design Manual* was subsequently implemented to provide more context-sensitive roads to facilitate Complete Streets-focused design. FDOT's Complete Streets Policy states that the agency will routinely plan, design, construct, reconstruct, and operate a context-sensitive transportation network that works for all modes of travel. The implementation framework for the policy includes revising guidance, standards, manuals, policies, and other documents; updating how decision-making is processed; modifying performance evaluation processes; managing communication between agencies; and updating training and education.

Florida Transportation Plan: Horizon 2060

The Florida Transportation Plan (FTP) is the state's long-range plan guiding Florida's transportation future. It looks at a 50-year transportation planning horizon and addresses how and where State investments in transportation will be made by guiding transportation planning decisions in Florida. The FTP supports the development of State, regional, and local transit services through seven goals and





objectives, emphasizing new and innovative approaches by all modes to meet needs today and in future. The 2060 FTP was completed in 2005 and is currently being updated to the 2075 planning horizon.

Florida's Strategic Intermodal System Policy Plan

FDOT's Strategic Intermodal System Policy Plan establishes the policy framework for planning and managing Florida's Strategic Intermodal System (SIS), the high priority network of transportation facilities important to the state's economic competitiveness. The SIS Policy Plan is a primary emphasis of FTP implementation and aligns with the current FTP Policy Element. The SIS Policy Plan includes three objectives to guide future SIS plans and investments:

- Interregional connectivity ensure the efficiency and reliability of multimodal transportation connectivity between Florida's economic regions and between Florida and other states/nations.
- Intermodal connectivity expand transportation choices, integrate modes for interregional trips.
- Economic development provide transportation systems to support Florida as a global hub for trade, tourism, talent, innovation, business, and investment.

Guidance from the SIS Policy Plan will help ensure the efficiency and reliability of multimodal transportation connectivity between Florida's economic regions, expand transportation choices and integrate modes for interregional trips, and provide transportation systems to support Florida freight networks to improve trade, tourism, talent, innovation, business, and investment.

Federal Funding Reauthorization

On December 4, 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act into law. The Act was the first Federal law in more than a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment, including transit systems and the rail transportation network. This reauthorization provides long-term certainty and more flexibility for states and local governments, streamlines project approval processes, and maintains strong commitment to safety.

Plans Review Summary

Various studies from the meta to the micro level share many common themes, including:

- Need to improve transit and transportation system efficiency and both environmental and financial sustainability.
- Need to create a more differentiated transit network, with more connections to more places and more variation in the types and functions of services, (for example, operation of express and local services in the same corridor).
- Need to expand use of BRT, transit priority, and Complete Streets improvements in key transit corridors to make transit faster and more reliable, as well as achieve broad agreement as to which corridors should receive these treatments.



- Agreement on transit hub locations and the need for capital investment to improve operating and passenger amenities at hub facilities.
- Need for transit-oriented development, infill, and redevelopment to increase density and create more walkable, mixed-use neighborhoods in key nodes and transit corridors.

These overarching themes and specific recommendations of the various plans provided significant input to guide the development of this TDP, ensuring that its goals, analyses, and recommendations are in line with local, regional, and state goals and coordinated with local, regional, and state efforts.

Situation Appraisal

An important component of a TDP major update is the situation appraisal or assessment of the transit agency's operating environment. Florida Rule 14-73.001 notes that a situation appraisal should include the effects of land use, State and local transportation plans, other governmental actions and policies, socioeconomic trends, organizational issues, and technology of the transit system.

Socioeconomic Trends

Socioeconomic trends such as growth in population impact a community's need for transportation options. Key findings from an assessment of socioeconomic trends conducted for Pinellas County include the following:

- Pinellas County has experienced population growth over the last 19 years. The population was 921,482 in 2000 and marginally declined to 916,542 in 2010, but the 2019 population is projected to be 977,060 and, by 2045, is expected to increase to 1,070,060, an increase of approximately 10% from 2019.
- The median age of residents in Pinellas County is 47.8, which is above the statewide median of 41.6, and is expected to continue to trend higher based on the most recent BEBR projection data by age group, which estimates that the 65+ age group will grow the fastest. BEBR estimates that 25% of the county's population was age 65+ in 2018, and that number is anticipated to grow to 32% by 2045.
- St. Petersburg and Pinellas Park are the fastest-growing areas in the county, with 9.9% and 8.6% growth since 2010, respectively. The unincorporated county contains more than 28% of the population, and more than 27% of the population live within the St. Petersburg City limits.
- Pinellas County is considered an international destination, with more than 15 million visitors in 2019, approximately 19% of whom originate from Europe.⁸ The St. Petersburg-Clearwater International Airport reported 2.3+ million passengers in 2019.⁹

⁹ St. Petersburg-Clearwater International Airport Passenger History, <u>https://www.fly2pie.com/news-</u> media/passenger-statistics-reports.



⁸ St Petersburg Tourism, <u>http://www.stpete.org/economic_development/stpete_advantage/tourism.php.</u>

• Poverty status for individuals increased, from 10% in 2000 to 13% in 2018. Most households below the poverty line are concentrated in south St. Petersburg, and concentrated poverty also is observed in Clearwater and Pinellas Park.

Implications

Although Pinellas County lost a small amount of population between 2000 and 2010, it had a net increase in population and jobs from 2010 to 2019, creating more demand for alternative modes of transportation such as transit. Furthermore, foreign-born visitors, especially those originally from areas with heavy transit use such as Europe, may indicate a potential market for transit. Shifting trips generated by visitors from local roadways to transit will also help alleviate congestion, particularly during peak seasonal months.

Millennials are one of the largest populations represented in the region and tend to desire more choices and flexibility in transportation options. However, in addition to attracting the younger generations, maintaining mobility and freedom for the aging adult population is a key consideration for future transit service. There are sizable segments of older adults (age 65+) and low-income households in Pinellas County, who may be more reliant on public transportation today and in the future. The ability of residents to access jobs within Pinellas County from low-income areas will remain a critical need for PSTA going forward. PSTA's continued success depends on its ability to tailor services that will expand its rider base and capture new transit markets and riders in an efficient manner. Whatever the menu of transit service options used, mobility and freedom for the aging adult population should always be a key consideration for future transit service.

Travel Behavior and Commuting Trends

To better assess the impact of travel behaviors and the state of the local economy on public transportation needs, it is important to understand existing and projected behaviors and conditions to determine possible impacts or benefits affecting public transportation services. Key findings are summarized as follows:

- Driving alone remains the mode of choice for an overwhelming majority of commuters in Pinellas County. In 2018, approximately 79% of commuters drove alone, followed by carpool, at a significantly lower 8%. The typical commute time for county residents is around 24 minutes, and approximately two-thirds of commutes are less than 30 minutes. In 2018, only 1.7% of commuters traveled to work using public transportation in Pinellas County.
- Based on CTPP data, Pinellas County has approximately 434,000 workers, of which 84% lived and worked within the county, indicating a high demand for employment-based trips. More than 69,000 commuters travel daily into Pinellas County, with almost 36,000 commuting from Hillsborough County, suggesting a need for consistent and reliable regional transit between the two counties.
- Congestion is currently a major issue; approximately 19% of roadways perform poorly at Level of Service (LOS) E or worse. Most notably, most roads needed for regional commuting (US-19,





Howard Frankland Bridge, Courtney Campbell Causeway, some parts of alternative US-19) are rated at LOS F.¹⁰

Implications

Pinellas County offers some key ingredients for developing a well-used transit system, including areas with a well-designed grid network of roadways and its status as the densest county in Florida. Given the challenge of today's longer transit commute times, PSTA should focus on improvements that make transit services more competitive with the single-occupant vehicle to attract the "choice" rider market. Facilitating better local and regional travel will also benefit riders who depend on transit for their daily travel needs but where traveling to a neighboring county using transit is currently a challenge or, in some instances, is not possible.

Offering a more well-connected and frequent transit service can help establish transit as an integral part of travel behavior. An overall increase in transit frequencies to key employment centers along the morecongested corridors will be needed to significantly increase ridership in Pinellas County.

Public Outreach

PSTA, in partnership with Forward Pinellas, conducted a variety of outreach activities as part of the Community Bus Plan update and *Advantage Pinellas* planning processes. For both direct engagement methods were used, including the Get-on-Board game, the on-board survey, online surveys, discussions with riders, and with PSTA staff. Other indirect methods included a variety of digital and online strategies to market the planning efforts, inform about the results, and obtain feedback on the proposed recommendations. This outreach provided a strong framework for this TDP update.

Implications

From the outreach efforts, the public clearly desired more frequent service and more evening service. Improved weekend service, especially on Sundays, was also cited as a high priority. PSTA also obtained a significant amount of information through its internal outreach efforts by holding focus groups with 50+ operators and CSRs who provide valuable information feedback on potential key issues with operations, safety, customer needs, among other topics.

Land Use Policy and Growth Patterns

Effective local land use policies are an important ingredient for a successful transit system, and PSTA should seek strategies that encourage higher densities and mixed-use growth patterns in its service area. Areas with increased residential and commercial densities/growth promote walkability, making mass transit more viable and efficient.

Key findings from a review of current and future land use conditions and ongoing and planned residential/commercial growth in Pinellas County indicate the following:



¹⁰ Forward Pinellas 2019 Annual Level of Service Report, <u>http://forwardpinellas.org/wp-content/uploads/2016/06/Level-Of-Service-Final-Report.pdf.</u>



- As noted, Pinellas County is the densest county in Florida, with more than 3,000 people per square mile and approximately 2,000 workers per square mile. Most current residential land use is low- to medium-density residential and lower-intensity commercial uses outside the core downtown areas, leaving room for higher-density residential and mixed-use redevelopment in activity centers and along key corridors.
- Although the land use pattern in most of Pinellas County is low- to medium-density residential, the Countywide Plan identified key activity centers and multimodal corridors that are targeted for redevelopment and enhanced transit service. There are also dense pockets designated for employment that coincide with the target employment center overlay.

Implications

Higher density and mixed-use redevelopment in key locations throughout Pinellas County will continue to increase the demand for alternatives to driving. To plan for service to adjust to these future needs, PSTA should continue to coordinate with Pinellas County and larger municipalities on efforts to support economic development along key corridors and at key locations where planned redevelopments are proposed. Having more robust transit service in place early can also bolster economic development efforts up front by providing benefits for developers such as reduced parking needs, a multimodal environment, and support for a greater mix of uses.

Additionally, PSTA should continue to support changes to local comprehensive plans that will result in additional density and/or transit-supportive development adjacent to established higher-density/ intensity areas.

Finally, PSTA should continue to monitor performance and adjust as needed to react to possible changes in land use as Pinellas County attracts new residents, employees, and visitors to ensure that connections from residential areas to transit-supportive areas and growing employment centers exist.

Organizational Attributes and Funding

Organizational Attributes

PSTA is organized into 11 divisions (9 with employees), with 634 positions budgeted for FY 2020 (Table 5-3). The Operations Division is the largest and comprises five departments, with 10 additional positions budgeted in FY 2020.



Table 5-3: PSTA Positions by Division

Division (Departments)	FY 2018	FY 2019	FY 2020	Change (2019–2020)
Executive	3	4	3	-1
Finance (Financial Planning & Analysis, Accounting, Procurement, Risk Management & Grants Administration)	30	33	33	0
Planning	13	13	13	0
Human Resources	4	5	5	0
Marketing	7	7	9	2
Information Technology	7	7	7	0
Project Management	4	4	6	2
Operations (Transportation, Maintenance, DART/Mobility, Safety & Training & Customer Service)	441	445	455	10
Maintenance (Fleet Maintenance, Service & Motor Pool, Facilities Maintenance & Inventory Control)	101	103	103	0
General Function	0	0	0	0
Insurance	0	0	0	0
Total	610	621	634	13

Source: PSTA FY 2020 Budget (adopted)

Since the last major TDP update, PSTA has had to address organizational changes to address a new Federal requirement related to Transit Asset Management (TAM). On July 26, 2016, FTA published its TAM Final Rule (49 CFR Part 625) requiring Federal formula grant recipients to develop a TAM Plan detailing their ongoing asset management planning process and providing accountability through reporting to the NTD. PSTA finalized its TAM Plan in September 2018.

To facilitate implementation of the TAM Plan, PSTA identified an organizational framework as specified in its TAM Policy to ensure that all related responsibilities are addressed. Figure 5-1 details the roles and responsibilities for the members involved.



TA



TAM ROLE /FUNCTION	REPRESENTATIVE	RESPONSIBILITIES
Executive Level: TAM Executive	Chief Executive Officer (CEO)	 Overall executive leadership responsibilities for approving the strategic direction and PSTA Policies for Asset Management Reporting on the status and effectiveness of asset management to the PSTA Board
		 Overall leadership responsibility for developing models for long- term capital investment plans and funding. Report on status to the CEO.
Leadership	Chief Financial	Policies, procedures, systems, and continuous improvement process.
	Officer (CFO)	 Development of annual capital investment prioritization and presentation of suggested projects in concert with the project owner and Project Management Division.
		Report on TAM to CEO and PSTA Board.
Program Management Level	Director of Fleet & Facilities	 Responsible for implementing asset management lifecycle plans, systems, policies and procedures. Managing assets on a day-to-day basis.
-	Maintenance	Overall leadership of the Asset Management Working Group
		 Overall coordination of all asset management activities across the Authority ensuring that people, processes, and systems are in place and work together to deliver services, and meet the asset management policy objectives
Working Group	Support Staff from technical and	 Oversee the development and implementation of asset and risk management plans for all asset classes.
Level: TAM Working	administrative departments, data	 Joint development and updating of all asset management policies for CFO and CEO approval.
Group	analytics specialist, IT specialist	 Responsible for implementing of approved policies as well as the enterprise asset management plan.
		Develop annual capital investment prioritization recommendations.
		Report on status to CFO.
		 Through the Project Management Office, represent all departments with PSTA capital asset projects and manage the interface between technical and financial departments.

Figure 5-1: PSTA Transit Asset Management Organizational Responsibilities

Source: PSTA TAM Plan, September 24. 2018

This organizational framework ensures that:

- The TAM process is integrated across all departments and decisions are aligned with agency policy and overall goals.
- Interfaces between the organizational structure are seamless.
- Implementation has appropriate proportionality in precision and quantification of risks, costs, performance, data collection/analysis/management, and decision-making process.
- Overall implementation achieves expected outcomes and benefits to PSTA.

As documented in the TAM Plan, PSTA anticipates that over the next 1-2 years up to 6.5 staff will be involved in TAM implementation (equivalent to about 2 FTEs). These personnel resources are



anticipated to include a combination of dedicated staff resources, members of the program management and working groups, and staff from various technical and executive departments. PSTA expects to invest approximately \$175,000 for TAM resource support.

Funding

PSTA's budget is funded primarily with State and Federal grant awards, fares, and property taxes. The Capital Improvement Plan budget includes approximately \$23.6 million in customer amenities for FY 2020 such as shelters, shelter pads that allow ADA accessibility, and the start of construction on the Central Avenue BRT, a \$43.9 million project. The five-year plan also includes a new Clearwater Downtown Intermodal Terminal estimated at \$21.2 million, which will proceed upon award of all funding sources.

Revenue sources that fund PSTA's operations and capital improvements to support the existing services are anticipated to continue. The agency may want to explore other funding options to provide revenue to expand the system and maintain a state of good repair into the future.

Implications

The current organizational structure should continue for PSTA, as it has been able to establish a solid foundation for providing transit within Pinellas County and, with the planned addition of the Central Avenue BRT and technological and other improvements, it will expand the reach of transit services over time. However, PSTA has budgeted for 10 new positions in its Operations division to address a shortfall of staff resources. PSTA has also outlined organizational responsibilities to ensure that it satisfies applicable Federal TAM requirements, as specified in its 2018 TAM Plan.

As previously noted, Pinellas County relies on funding sources from State and Federal grants. As PSTA continues to grow ridership and its services, additional revenue sources will be needed to supplement existing funding for currently unfunded projects and to add service supply that will increase efficiency. Potential funding options includes sales tax and tourism-oriented sources.

Technology

PSTA is also working with various technology providers to identify how to better integrate technologies to simplify the process of making a complete trip, possibly across multiple modes, while balancing efficiency and cost. Key technology-related improvements or initiatives that PSTA has led or been involved in include the following:

- Leveraging emerging technologies through the Direct Connect and Late Shift programs for the use of smartphone applications to provide on-demand, cost-effective first and last mile service and other alternatives for specialized needs of riders.
 PSTA is also working with other technology and app providers on integrating various functions such as real-time arrival information, fare payment, and dispatch, with the ultimate goal of having a single app to provide a variety of user experiences.
- **Planning for future BRT service** along the Central Avenue corridor. The Central Avenue BRT will include technology enhancements such as smart cards and mobile pay, level boarding, and





transit signal priority (TSP). PSTA is also coordinating with Pinellas County and St. Petersburg on implementation of TSP for the Central Avenue BRT. Additional coordination is planned to extend the Pinellas County fiber network to the PSTA facility to allow for expansion of TSP to other corridors.

- Exploring transportation system management and operation (TSM&O) strategies for addressing congestion and reliability issues, including part-time shoulder use for public transit on the interstate system. The BOS pilot project, in coordination with FDOT, examined a five-mile segment of I-275 from downtown St. Petersburg to downtown Tampa. Adding BOS improvements is a relatively lower-cost solution to improve travel speeds and route performance of the Route 100X which provides regional connectivity between downtown St. Petersburg and Tampa.
- **Coordinating with HART to implement Flamingo Fares**, a regional fare collection system that will allow interoperability with seamless common fare media for passengers throughout the Tampa Bay region. This project included identification of equipment and technology needs, and procurement and implementation of a single fare media and associated equipment for the participating counties. PSTA adopted a new fare policy in January 2020 to be implemented alongside Flamingo Fares, currently in beta testing.
- Employing sustainable fuel technologies. One of PSTA's most notable sustainability initiatives has been the purchase of hybrid and electric vehicles to replace aging diesel buses. As of March 2020, PSTA had 89 hybrid buses and 2 electric buses. It received its first two electric buses in 2018 and deployed them on the downtown St. Petersburg circulator, the Looper/eLooper. PSTA is now constructing an electric bus charging station at the PSTA Administration Facility Transfer Area with a grant from the Pinellas County BP settlement. PSTA will receive an additional 4 electric buses in 2021 and is currently working with the Center for Transportation and the Environment (CTE) to evaluate and identify routes to deploy these additional buses. PSTA is also working with Duke Energy to identify and plan for additional charging infrastructure that will be needed as PSTA continues to expand its fleet.

• Automated Vehicle Technologies

FDOT is working to create a framework for deployment of automated vehicle (AV) technologies on public roadways through the Florida Automated Vehicles (FAV) Initiative. According to FAV, AVs include both autonomous and connected vehicle technologies. An AV is any vehicle equipped with advanced sensors (radar, LIDAR, cameras, etc.) and computing abilities to perceive its surroundings and activate steering, braking, and acceleration without operator input. Connected vehicles (CVs) employ vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication to provide real-time warnings to a human driver to help them avoid crashes. Additional information can include traffic signal status, traffic congestion and construction warnings, and impending severe weather events. Both technologies have the potential to improve safety and efficiency of our transportation system in Florida, as more than 90% of traffic crashes are due to human error. CV technologies can also allow back-office systems such as a traffic signal control system to react to real-time information from a vehicle.





Public transportation agencies throughout Florida, including PSTA, have been partnering with FDOT to test various technologies. In addition, transit agencies outside Florida are conducting AV technology demonstration projects to evaluate driver assist systems for shoulder-running buses, automated docking of BRT vehicles, and crash warning and avoidance systems.

PSTA, in partnership with the City of St. Petersburg, plans to implement an autonomous shuttle demonstration project to understand how the technology could benefit and impact commuters in St. Petersburg. The demonstration will include infrastructure improvements and the operation of two autonomous shuttles in downtown St. Petersburg. PSTA is working with a third-party operator to assess the route for this demonstration and to prepare documentation to submit to the National Highway Traffic Safety Administration (NHTSA) for these shuttles to be approved for operation on a public roadway. PSTA is currently finalizing an operations agreement with the vendor.

PSTA worked with Stantec to develop an AV feasibility study and concept plan for autonomous shuttle services in Clearwater and Dunedin to examine the potential for a self-driving shuttle service implementation and to define the potential infrastructure, capital, and operating requirements necessary to support additional pilot projects. The feasibility study was completed at the end of 2019, and a third-party operator has since performed additional analysis of the routing options to prepare application packages to submit to NHTSA for these shuttles to be approved for operation on public roadways.

PSTA is also a member of an Automated Bus Consortium (ABC) with more than 12 other transit agencies and state DOTs throughout the country, which is being led by AECOM. PSTA and the other consortium agencies submitted a grant proposal to FTA's Integrated Mobility Innovation program to receive funding to plan potential use cases for fully autonomous fixed-route buses.

Implications

In recent years, PSTA has expanded the role of technology to enhance its fixed-route and other mobility services. It will continue to broaden the role of technology as new services, such as the Central Avenue BRT, come online. PSTA should continue to explore ways that technology can improve the efficiency of its operations and provide sustainable travel options. Younger generations are trending towards using transit more by choice, and the use of innovative technologies such as smartphone apps and on-demand series that are convenient and easy to use makes PSTA more attractive to choice riders. By increasing the accessibility of transit through smartphone apps, riders can plan their trips better, thus leading to higher rider satisfaction.

PSTA is currently evaluating how to better integrate real-time trip planning, fare payment, TNCs, and other transit and mobility-related apps.



Section 6 Alternatives & Demand Assessment

Alternatives

PSTA has identified two alternative scenarios based on different funding assumptions:

Scenario 1: Maintenance Plan	Scenario 2: Optimal Plan
• Maintain existing services • Central Ave BRT	 Frequency & span improvements New express routes Unfunded operating & capital priorities
• Funding to maintain service levels	• Yet to be identified new additional revenue sources

Scenario 1: Maintenance Plan

The Maintenance Plan alternative assumes that PSTA's existing bus network, DART paratransit service, and innovative mobility programs (Mobility on Demand, Direct Connect/TD Direct Connect, Healthy Hop, TD Late Shift programs) will be maintained.

PSTA recently completed the design of the Central Avenue BRT service from downtown St. Petersburg to St. Pete Beach. The service is expected to support local revitalization and economic development plans as well as tourism. It will also complement local service provided by the existing Central Avenue Trolley by providing faster, limited-stop travel from downtown St. Petersburg to the beaches seven days per week on 1st Avenue N and 1st Avenue S, Central Avenue, Pasadena Avenue, and Gulf Boulevard. This BRT route would be the first of what is envisioned as a future network of rapid transit services connecting workers, residents, and visitors to economic centers and tourist destinations. This scenario assumes full implementation of the Central Avenue BRT service.

The capital side of this scenario also includes revenue vehicle replacement for existing services and capital needs related to the Central Avenue BRT.

Scenario 2: Optimal Plan

PSTA's Optimal Plan builds on the Maintenance Plan scenario by including the full implementation of the Central Avenue BRT project. Beyond that, this scenario is based on the recommendations of the 2018 Community Bus Plan and includes improvements to routes based on their service classification, as detailed in Table 6-1. In addition to route frequency and span improvements, the Optimal Plan scenario also includes implementing BRT service on five additional core routes beyond the Central Ave BRT, express bus on one of the core routes, and two new express routes from downtown St. Petersburg to Tampa International Airport and from Clearwater Beach to Tampa International Airport, as well as expanding PSTA's innovative mobility programs and implementing autonomous vehicle service.





Table 6-1: Optimal Scenario Summary of Improvements by Route Classification

Route Classification	Corridors/Areas Served		Current Service	Sce	nario Assumptions										
	Highest performing routes	Weekday Service	 Span: 5:30 AM-12:00 AM Frequency: 15-30 min 	Improvements increase frequency all day and span for Routes 4, 59,	 Span: 5:00 AM-11:00 PM/12:00 AM Frequency: 15 min 										
Core	along Central Ave, 4th St, Gulf to Bay Blvd, Alt-19 S/Seminole Blvd, 49th St, US-19, and 34 th St		 Span: 5:30 AM-11:30 PM (Sat); 7:00 AM-7:00 PM (Sun) Frequency: 30-60 min 	60, 18, 34, 19 53 & 52LX Service planned to take the form of limited stop overlay, BRT, or express bus	 Span: 6:00 AM–12:00 AM (Sat), 7:00 AM–9:00 PM (Sun) Frequency: 15 min 										
Frequent	High performing routes along Park Blvd, Betty	Weekday Service	 Span: 5:30 AM-9:00/10:00 PM Frequency: 30 min 	Increase frequency and	Span: 5:00 AM–11:00 PMFrequency: 15 min										
Local			span for Routes 7, 9, 11, 14, 74, 78 & 79	 Span: 6:00 AM-11:00 PM (Sat), 7:00 AM-10:00 PM (Sun) Frequency: 30 min 											
					neighborhoods and feed	neighborhoods and feed	neighborhoods and feed	neighborhoods and feed	neighborhoods and feed		neighborhoods and feed Serv	Weekday Service	• Frequency: 30–60 min Inc	Increase frequency and	Span: 5:00 AM–10:00 PMFrequency: 30 min
Supporting Local	into more frequent routes, such as 5th Ave N, 22nd Ave N, 38th Ave N, Alt-19 N, Belcher Rd, Keene Rd/ Starkey Rd	Weekend Service	 Span: 5:30 AM-8:00/9:00 PM (Sat), 7:00 AM-7:00 PM (Sun if applicable; many routes have no Sunday service) Frequency: 60 min 	span for Routes 5, 15 16, 23, 38, 58, 61, 62 65, 66L, 67, 68, 73, 75, 76, 812 813 & 814	 Span: 6:00 AM-11:00 PM (Sat), 7:00 AM-9:00 PM (Sun) Frequency: 60 min 										
	Improvements to trolley service on Gulf Blvd,	Weekday Service	 Span: 5:00 AM–11:00 PM Frequency: 15 –30 min 	Assumes improvements	 Span: 5:00 AM–12:00 AM Frequency: 15–30 min 										
Trolleys	Central Ave. Clearwater		 Span: 7:00 AM-10:00 PM (Sat), 8:00 AM-7:00 PM (Sun) Frequency: 30-60 min 	for the Central Ave Trolley, Downtown Looper, & Suncoast Beach Trolley	 Span: 6:00 AM-12:00 AM (Sat), 7:00 AM-9:00 PM (Sun) Frequency: 15-30 min 										
Express	press Westshore/Downtown Dutes Tampa		• Frequency: 30 min (peak), 120 min (off-peak) span existing route	Increase frequency and span existing routes	 Span: 5:00 AM –12:00 PM Fraguancy: 20 min 										
Routes			N/A	100X, 300X; add 2 new routes	Frequency: 30 min										





For the capital side, this alternative also includes expanding BRT on core routes, additional buses to support service expansion, additional vehicles, replacement/upgrade of technology, and new sustainability projects.

More about the operating and capital priorities for this scenario is discussed in Section 8. Improvements beyond maintaining the existing system and Central Avenue BRT identified in the Maintenance Plan scenario are unfunded, and additional dedicated revenues from sources yet to be identified will be needed for full implementation of the Optimal Plan. The Optimal Plan has been incorporated into Forward Pinellas' *Advantage Pinellas* plan. Incremental expansion toward the fulfilment of the optimal plan will be implemented as new revenue sources become available.

Ridership Projections

Ridership projections for the PSTA's existing network, the 2030 Maintenance Plan scenario, and the 2030 Optimal Plan scenario were prepared using T-BEST (Transit Boardings Estimation and Simulation Tool) Version 4.6, a FDOT-approved ridership estimation software. T-BEST is a comprehensive transit analysis and ridership forecasting model that can simulate travel demand at the individual route level. The software was designed to provide near- and mid-term forecasts of transit ridership consistent with the needs of transit operational planning and TDP development. In producing model outputs, T-BEST also considers the following:

- *Transit network connectivity* The level of connectivity between routes within a bus network. The greater the connectivity between bus routes, the more efficient the bus service becomes.
- Spatial and temporal accessibility Service frequency and distance between stops. The larger the physical distance between potential bus riders and bus stops, the lower the level of service utilization. Similarly, less frequent service is perceived as less reliable and, in turn, utilization decreases.
- *Time-of-day variations* Peak-period travel patterns are accommodated by rewarding peak service periods with greater service utilization forecasts.
- Route competition and route complementarities Competition between routes is considered. Routes connecting to the same destinations or anchor points or that travel on common corridors experience decreases in service utilization. Conversely, routes that are synchronized and support each other in terms of service to major destinations or transfer locations and schedule benefit from that complementary relationship.

The remainder of this section outlines the model input and assumptions, describes the T-BEST scenarios performed using the model, and summarizes the ridership forecasts produced by T-BEST.

Model Inputs / Assumptions and Limitations

The inputs and the assumptions made in modeling PSTA's routes in T-BEST are noted below. T-BEST uses various demographic and transit network data as model inputs. The model used the recently released T-BEST Land Use Model structure (T-BEST Land Use Model 2019), which is supported by parcel-level data developed from the Florida Department of Revenue (DOR) statewide tax database.



It should be noted, however, that the model is not interactive with roadway network conditions. Therefore, ridership forecasts will not show direct sensitivity to changes in roadway traffic conditions, speeds, or roadway connectivity.

Transit Network

The transit route network for all existing PSTA routes was created to reflect 2019 conditions, the validation year for the model. General Transit Feed Specification (GTFS) data for PSTA were obtained from Remix in February 2020 and used as the base transit system. The GTFS includes:

- Route alignments
- Route patterns
- Bus stop locations
- Service spans
- Travel times
- Existing headways during peak and off-peak periods (frequency at which a bus arrives at a stop—e.g., one bus every 60 minutes)

The base network was verified to ensure the most recent bus service spans and headways. The Optimal Plan scenario network was created using the same base network in Remix and imported into T-BEST with a 2030 forecast year.

Socioeconomic Data

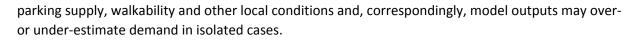
The socioeconomic data used as the base input for the T-BEST model were derived from American Community Survey (ACS) Five-Year Estimates (2013-2017), Bureau of Labor Statistics, Bureau of Economic Analysis, 2015 InfoUSA employment data, and 2018 parcel-level land use data from the Florida DOR. Using the data inputs listed above, the model captures market demand (population, demographics, employment, and land use characteristics) within ¼-mile of each stop.

T-BEST uses a socioeconomic data growth function to project population and employment data. Using 2045 socioeconomic forecasts for FDOT District 7, population and employment growth rates were applied at a Traffic Analysis Zone level. Population and employment data are hard-coded into the model and cannot be modified by end-users. As applied, the growth rates do not reflect fluctuating economic conditions as experienced in real time.

T-BEST Model Limitations

It has long been a desire of FDOT to have a standard modeling tool for transit demand that could be standardized across the state, similar to the Florida Standard Urban Transportation Model Structure (FSUTMS) model used by metropolitan planning organizations in developing long range transportation plans (LRTPs). However, whereas T-BEST is an important tool for evaluating improvements to existing and future transit services, model outputs do not account for latent demand for transit that could yield significantly higher ridership, In addition, T-BEST cannot display sensitivities to external factors such as an improved marketing and advertising program, changes in fare service for customers, fuel prices,





Although T-BEST provides ridership projections at the route and bus stop levels, its strength lies more in its ability to facilitate relative comparisons of ridership productivity. As a result, model outputs are not absolute ridership projections, but rather are comparative for evaluation in actual service implementation decisions. T-BEST has generated interest from departments of transportation in other states and continues to be a work in progress that will become more useful as its capabilities are enhanced in future updates to the model. Consequently, it is important to integrate sound planning judgment and experience when interpreting T-BEST results.

Ridership Forecast

Using these inputs, assumptions, and FY 2019 route level ridership data obtained from PSTA, the T-BEST model was validated. Using the validation model as the base model, T-BEST ridership forecasts for this TDP major update were developed for the following scenarios:

- **2021 No Improvements scenario** This scenario reflects ridership for the TDP base year with existing services maintained at 2019 service levels.
- **2030 Maintenance Plan scenario** This scenario reflects ridership estimates for 2030 with the Central Avenue BRT implemented.
- **2030 Optimal Plan scenario** This scenario reflects ridership estimates for 2030 with the Central Avenue BRT, two new express routes, and the frequency, span, and other improvements made to existing routes as previously noted in Table 6-1.

Table 6-2 summarizes the projected daily weekday ridership by route and compares the absolute change and growth rates in daily weekday ridership between the 2021 No Improvements scenario and the 2030 Maintenance Plan and 2030 Optional Plan scenarios, respectively. It should be noted that the ridership forecasts generated by the FTA STOPS model forecast prepared for the Central Avenue BRT locally preferred alternative are shown for that route.

Based on the ridership forecast results, implementing the Central Avenue BRT route under the Maintenance Plan scenario is anticipated to increase PSTA's daily weekday ridership systemwide by nearly 20% in 2030 compared to the 2021 No Improvements scenario. The implementation of the Optimal Plan scenario is projected to increase PSTA's daily weekday ridership systemwide by nearly 105% compared to the 2021 No Improvements scenario.





Table 6-2: Daily Weekday Ridership and Growth Rates by Scenario, 2021–2030*

Route	2021 No Improvements	2030 Maintenance Plan Scenario	Absolute Change	% Change from 2021 No Improvements	2030 <i>Optimal</i> Plan Scenario	Absolute Change	% Change from 2021 No Improvements
4	2,840	3,101	261	9.2%	3,900	1,060	37.3%
5	433	468	35	8.1%	778	345	79.7%
7	441	509	68	15.4%	1,144	703	159.4%
9	982	1,091	109	11.1%	1,628	646	65.8%
11	765	806	41	5.4%	1,175	410	53.6%
14	1,269	1,454	185	14.6%	2,581	1,312	103.4%
15	521	510	-11	-2.1%	916	395	75.8%
16	237	271	34	14.3%	476	239	100.8%
18	3,472	3,629	157	4.5%	4,750	1278	36.8%
19	1,578	1,660	82	5.2%	2,381	803	50.9%
20	497	534	37	7.4%	986	489	98.4%
22	115	123	8	7.0%	240	125	108.7%
23	519	616	97	18.7%	825	306	59.0%
32	120	152	32	26.7%	180	60	50.0%
34	2,934	3,212	278	9.5%	4,592	1,658	56.5%
38	371	400	29	7.8%	732	361	97.3%
52	2,982	3,215	233	7.8%	4,537	1,555	52.1%
52LX	547	591	44	8.0%	1,927	1,380	252.3%
58	186	195	9	4.8%	242	56	30.1%
59	1,626	1,732	106	6.5%	2,267	641	39.4%
60	1,351	1,508	157	11.6%	2,557	1206	89.3%
61	567	591	24	4.2%	968	401	70.7%
62	578	582	4	0.7%	960	382	66.1%
65	269	279	10	3.7%	478	209	77.7%
66	244	261	17	7.0%	377	133	54.5%
67	328	344	16	4.9%	431	103	31.4%
68	197	212	15	7.6%	366	169	85.8%
73	362	376	14	3.9%	725	363	100.3%
74	1,092	1,153	61	5.6%	1,819	727	66.6%
75	421	441	20	4.8%	776	355	84.3%





Route	2021 No Improvements	2030 Maintenance Plan Scenario	Absolute Change	% Change from 2021 No Improvements	2030 <i>Optimal</i> <i>Plan</i> Scenario	Absolute Change	% Change from 2021 No Improvements
76	326	324	-2	-0.6%	566	240	73.6%
78	720	734	14	1.9%	1,572	852	118.3%
79	1,558	1,763	205	13.2%	2,842	1,284	82.4%
90	75	72	-3	-4.0%	71	-4	-5.3%
100X	204	267	63	30.9%	511	307	150.5%
300X	131	178	47	35.9%	338	207	158.0%
Jolley Trolley Beach (South)	585	540	-45	-7.7%	547	-38	-6.5%
Jolley Trolley Beach (North)	153	166	13	8.5%	207	54	35.3%
Jolley Trolley Coastal	324	349	25	7.7%	486	162	50.0%
CAT	3,295	4,109	814	24.7%	4,524	1,229	37.3%
812	70	71	1	1.4%	150	80	114.3%
813	39	40	1	2.6%	91	52	133.3%
814	50	51	1	2.0%	116	66	132.0%
Looper	129	150	21	16.3%	297	168	130.2%
Suncoast Beach Trolley	1,640	1,698	58	3.5%	1,834	194	11.8%
New Central Ave BRT**		3,948	3,948	100.0%	4,810	4,810	100.0%
New 60X					315	315	100.0%
New 727X					827	827	100.0%
New US 19 North (19)					1,068	1,068	100.0%
New US 19 South (34)					2,274	2,274	100.0%
New 1600 / Alt 19 North					518	518	100.0%
New 49th St - LX					864	864	100.0%
New 4th St LX					2,256	2,256	100.0%
New Alt 19 South					1,811	1,811	100.0%
New Roosevelt / E Bay					802	802	100.0%
New SR 580					672	672	100.0%
Totals	37,143	44,476	7,333	19.7%	76,083	38,940	104.8%

*Based on T-BEST model

**Ridership forecast for the Central Avenue BRT is based on FTA STOPS model forecast



Section 7 Mission and Goals

PSTA Mission

To safely connect people to places.

PSTA Goals

PSTA has developed five goals to support its mission and guide agency operations, planning, and implementation of improvements to the public transit system in Pinellas County. PSTA also annually identifies metrics to support these five goals and assesses its performance against these metrics each fiscal year. PSTA's goal and the performance metrics for FYs 2019 and 2020 are shown in Table 7-1.

Goal	Performance Metric
Community Support: Perception	✓ Community sentiment survey
in the community and support	✓ Funding partnerships per year
from municipal, State, and Federal	 Improved environmental sustainability indicators per year
partners.	✓ State and Federal legislative initiative advancements per year
	✓ Annual budget variance
Financial Stability: Being a	✓ Draft deficit reduction
responsible steward of financial	 Financial diversity in millions of dollars
resources.	✓ Operating cost per revenue hour
	✓ Passenger trips per revenue hour
	✓ Fixed-route net promoter score
Customer Satisfaction: Customer	✓ Paratransit net promoter score
perceptions about our services.	✓ Fixed-route overall customer satisfaction
	 Paratransit overall customer satisfaction
Employee Engagement: Fostering	 Improved employee engagement indicators
an engaging workplace that	✓ Percentage of employee performance goals achieved
supports and inspires employees	✓ Training effectiveness
to succeed.	✓ Annual voluntary departures
Commitment to Performance: Using data to improve performance.	 Annual improvement in key American Bus Benchmarking Group metrics Percentage of construction completed for Central Avenue BRT

Table 7-1: PSTA Goals and Performance Metrics



TA

Section 8 10-Year Transit Plan

As previously noted in Section 6, PSTA's FY 2021-2030 TDP includes two scenarios. The Maintenance Plan scenario assumes maintaining existing services and implementation of the Central Ave BRT. The Optimal Plan scenario is unfunded and includes improving routes based on their service classification, implementing two new express routes, expanding PSTA's innovative mobility programs, and beginning autonomous vehicle service. The operating and capital priorities included in the Optimal Plan scenario are provided in Figure 8-1.



Figure 8-1: PSTA 10-Year Operating and Capital Priorities

Maintenance Plan Scenario

The operating, capital, planning, technology, sustainability, and coordination elements of the Maintenance Plan scenario are described in this section.

8-2

Maintenance Plan Scenario

The operating, capital, planning, technology, sustainability, and coordination elements of the Maintenance Plan scenario are described in this section.

Operating

The following operating elements are included in the Maintenance Plan scenario illustrated in Map 8-1.

Maintain Existing Services

The Maintenance Plan scenario assumes that PSTA's existing bus network, DART service, and innovative mobility programs (Mobility on Demand, Direct Connect/TD Direct Connect, Healthy Hop, and TD Late Shift programs) will be maintained along with the following improvements.

Central Avenue Bus Rapid Transit

PSTA recently completed design of the Central Avenue BRT service from downtown St. Petersburg to St. Pete Beach. The BRT is expected to support local revitalization and economic development plans as well as tourism. It will also complement local service provided by the existing Central Avenue Trolley by providing faster, limited stop travel from downtown to the beaches, seven days a week on 1st Avenue N and 1st Avenue S, Central Ave, Pasadena Avenue, and Gulf Boulevard. This BRT route would be the first of what is envisioned as a future network of rapid transit services connecting workers, residents, and visitors to economic centers and tourist destinations.

Capital

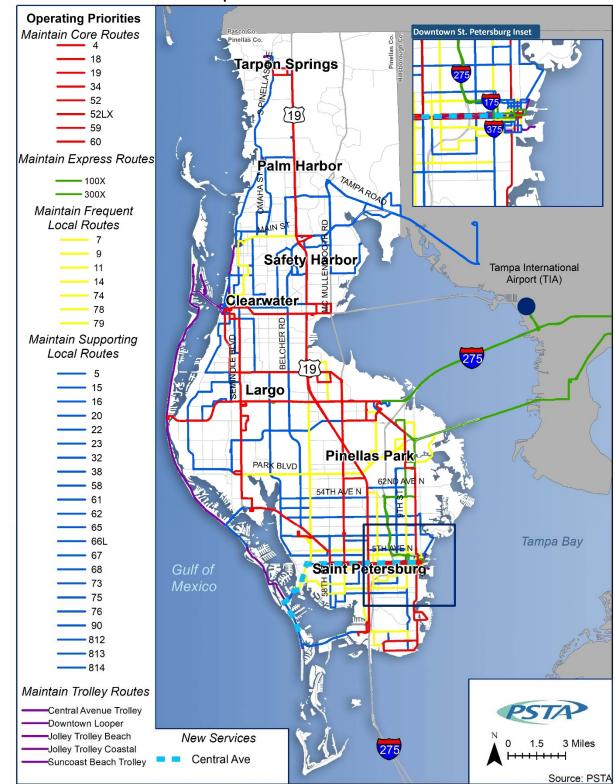
Revenue Vehicle Replacement

PSTA has 124 buses that have reached their useful life as of August 2018. The agency has established a sustainable fleet plan to provide for extending the life of an aging bus fleet and to annually purchase a minimum of 8–9 buses. When purchasing new buses, the Board and staff evaluate various fuel technology options to balance 2 sustainability with fiscal constraints. As of March 2020, PSTA operates 89 hybrid buses and two electric buses in addition to its diesel fleet.

To support the expansion of electric buses, PSTA will also need to invest in additional electric bus charging infrastructure at its Scherer Drive facility and in-route charging infrastructure at PSTA transfer centers or other strategic locations within the county.







Map 8-1: Maintenance Plan Scenario





Park-and-Ride Facilities

To augment the existing network of county park-and-ride facilities, PSTA has been evaluating a parkand-ride program that would consist of a regional network of facilities that will connect inter- and intracounty commuter express services and meet regional travel needs. Although many informal park-andride facilities exist throughout the county, only two are officially maintained and operated either by FDOT or PSTA. The two facilities include Ulmerton Road near Starkey Road in Largo and 22nd Avenue N at I-275 in St. Petersburg. The Ulmerton Road facility was improved within the last few years. PSTA plans to improve the 22nd Avenue park-and-ride lot so that it can be used in conjunction with current and future express bus service on I-275.

PSTA also partners with local jurisdictions to serve temporary park-and-ride locations along PSTA bus routes for special or seasonal events including spring break, professional baseball spring training, and various festivals/parades.

Amenities Program

PSTA continues its regularly scheduled program of amenity provisions and replacement based on priority needs throughout the system. PSTA has an inter-departmental amenities committee that meets monthly to review and make recommendations on all new or replacement bus stops and amenities. PSTA's Bus Shelter Program was developed to maximize the utility in placing newly-designed and purchased bus shelters at locations that meet specific criteria. Criteria include both a customer needsbased approach and long-term support of community development initiatives and revitalization. PSTA has implemented three phases of its shelter deployment plan over the last five years. Additional phases are in development, and recommendations will be implemented in the upcoming years.

Through the Amenity Partnership and Art in Transit Programs, PSTA partners with cities and private entities to purchase and install upgraded bus shelters, ADA-compliant landing pads, and other transitrelated amenities such as benches, bicycle racks, and trash cans. For privately-funded artistic shelters, PSTA coordinates with developers and local jurisdictions on design specifications. Map 8-2 illustrates PSTA bus stops with bus shelters and those installed annually over the last four years.

Planning

Transit Development Plan

PSTA will prepare a major update of its TDP in five years that will reexamine the system needs based on updated data and public input. In the interim years, PSTA will prepare annual reports to check on the progress it has made toward implementing the recommendations in this 10-year TDP.

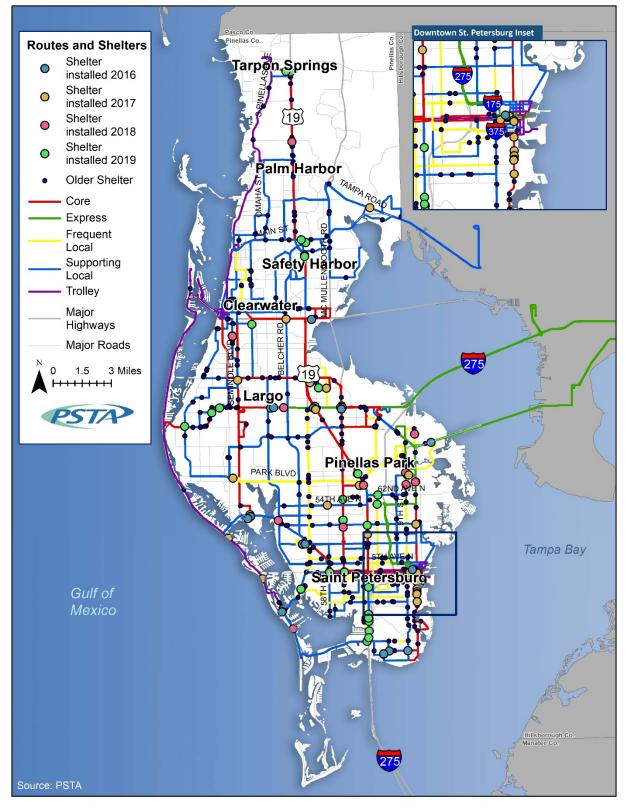
Transit Oriented Development (TOD) Planning Grant

PSTA was awarded an FTA TOD Planning grant to identify strategies for land use, economic development, affordable housing, public engagement, and business assistance within the Central Avenue BRT corridor that will support the project and other community efforts. A study is currently underway. A committee with representatives from Forward Pinellas, PSTA, and the local jurisdictions along the corridor meets regularly to guide the project and ensure recommendations are implemented.













Downtown St Petersburg to Downtown Tampa Express and Bus on Shoulders Project

PSTA's Route 100X was recently expanded from the Gateway area to downtown St. Petersburg to provide a one-seat ride between downtown St. Petersburg and downtown Tampa. Increased span and frequency are planned to better serve the travel needs and make the service a more viable alternative for people during construction of the Howard Frankland Bridge and Tampa Bay Next projects.

FDOT and PSTA are also planning to harden the shoulders of I-275 to allow PSTA buses to use the shoulder when traffic congestion is such that travel speeds fall below a pre-determined speed. Being able to use the shoulder would improve travel time and reliability for any route using the interstate.

Autonomous Vehicle Demonstration Study

PSTA is currently conducting a study to develop a proof-of-concept for autonomous vehicle service on routes in St. Petersburg, Dunedin, and Clearwater. This study will help position PSTA to understand its options for employing this technology as it evolves.

Technology

SmartCard/Mobile Pay (Flamingo Fares)

PSTA and HART are leading the development of a regional fare collection system that will allow interoperability with seamless common fare media for passengers throughout the Tampa Bay region, including unlimited rides on all PSTA and HART routes, the TECO Streetcar, and Jolley Trolley services. This project includes identification of equipment and technology needs, development of common fare policies, a common website, and a back office as well as procurement and implementation of smart cards and the mobile application.

PSTA and HART are currently piloting the mobile app and SmartCard and expect to fully implement the Flamingo Fares system in mid-late 2020. PSTA also recently finalized a new fare policy that will be implemented with the SmartCard/mobile pay features.

Sustainability

Sustainability Plan

The incorporation of sustainability principles into planning and operations has become more common in the public transportation industry in recent years. Sustainability is a way to make our communities more livable by integrating and balancing economic, social and environmental needs. The American Public Transportation Association (APTA) has defined what this means for public transportation agencies:

- Employing practices in design and capital construction, such as using sustainable building materials, recycled materials, and solar and other renewable energy sources to make facilities as "green" as possible.
- Employing practices in operations and maintenance such as reducing hazardous waste, increasing fuel efficiency, adding hybrid vehicles to the bus fleet, creating more efficient lighting and using energy-efficient propulsion systems.



• Employing community-based strategies to encourage land use and transit-oriented development designed to increase public transit ridership.

PSTA participates in APTA's Sustainability Recognition Program which requires annual reports and progress toward sustainability goals. In 2019, PSTA was awarded the Silver recognition level. PSTA will work to continue to improve on sustainable metrics and implement identified action items with the goal of receiving gold level recognition.

PSTA's Sustainability Action Plan was last updated in 2019 and includes goals, strategies, and representative sustainability initiatives. In 2020, PSTA will engage a consultant to help develop and institutionalize a formal, agency-wide Sustainability Program. PSTA will coordinate with Pinellas County, the Pinellas MPO, and other agencies in the Tampa Bay Area on sustainability and resiliency.

As noted in earlier sections, one of PSTA's most notable sustainability initiatives has been the purchase of hybrid and electric vehicles to replace aging diesel buses.

Agency Governance, Coordination, and Partnerships

The PSTA Board and its five committees, staff leadership, and transportation partner agencies work together to lead transportation service planning and provision for Pinellas County.

PSTA Annual Scorecard

PSTA's Performance Scorecard includes five priority strategies and multiple performance metrics to quantitatively measure success of the strategies—Community Support, Financial Stability, Customer Satisfaction, Employee Engagement, and Commitment to Performance. Each department has its own metrics that feed into the overall organization scorecard. PSTA tracks all metrics quarterly and presents the agency-wide scorecard to the Executive Committee each quarter and the full Board annually.

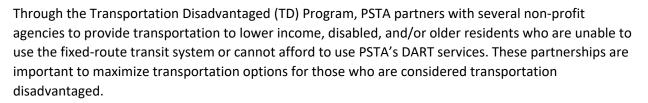
Legislative Agenda

PSTA's Legislative Committee works directly with PSTA's Federal and State lobbyists to advance funding to implement priority PSTA projects. Both Federal and State legislative agendas are set and approved by the PSTA Board annually.

Service Partnerships

Since 2010, PSTA has partnered with the Jolley Trolley Group and local jurisdictions to provide trolley services between Clearwater Beach, downtown Clearwater, and north coastal communities including Clearwater, Dunedin, Palm Harbor, and Tarpon Springs. The trolley routes serve selected destination points and provide connections to numerous PSTA routes. PSTA also has agreements with St. Pete Beach and Treasure Island, which do not currently contribute to the Transit Authority through ad valorem, to jointly purchase PSTA transit service that operates in these communities along the Gulf Boulevard corridor.

Since 2004, PSTA has partnered with St. Petersburg and the Looper Group, Inc., to provide circulator service in downtown St. Petersburg. Currently, both the Looper Group and PSTA operate buses on the route, with the Looper Group using trolley vehicles and PSTA using an all-electric bus.



Regional Service Coordination

PSTA coordinates with HART, Pasco County Public Transit (PCPT), and TBARTA on regional transit funding and services. The four agencies split the regionally allocated FTA Section 5307 formula funding through an interlocal agreement and coordinate on regional transit routes and services.

PSTA also coordinates with HART and PCPT to maintain and improve connections between systems. Regional connection points and transfer centers are maintained by PSTA in St. Petersburg, Pinellas Park, Tarpon Springs, Clearwater, and Largo, facilitating transit service connections between PSTA, PCPT, MCAT (Manatee County Area County), HART, and Greyhound. PSTA also makes connections with HART routes at the Marion Street, Britton Plaza, Westshore Plaza, and Northwest Transfer Centers in Hillsborough County. Coordination efforts include route planning and the provision of passenger benches and shelters, route and schedule information, and shared bus stop locations. Passengers can purchase a regional bus pass for seamless travel between Pinellas and Hillsborough counties on Routes 100X and 300X and for unlimited trips on the HART and PSTA systems. In addition, the Flamingo Fares project will allow for a single fare card that can be used for cross regional travel. New regional express routes from Clearwater Beach to Tampa International Airport and from downtown St. Petersburg to Tampa International Airport are included in PSTA's priority project list under the Optimal Plan scenario.

PSTA is currently working with FDOT to allow the use of buses on shoulders on I-275 so buses can travel faster when traffic gets congested. PSTA is also working with FDOT to ensure that express buses will be able to travel in the express lanes once they are implemented.

PSTA is also coordinating with TBARTA during the ongoing PD&E study for the Regional Rapid Transit to provide premium transit project from downtown St. Petersburg to Wesley Chapel in Pasco County via I-275. PSTA is also participating in the FDOT's Regional Intermodal Centers Study and the Forward Pinellas Gateway Master Plan project to help identify a location for a future intermodal center in the Gateway Area that will serve as a connection between regional transit services, Pinellas County's largest employment center, and PSTA's local bus network.

Interagency Partnerships and Collaboration

PSTA coordinates and collaborates with other transportation agencies and local jurisdictions on specific projects to ensure transit components and services are implemented in a cost effective and efficient manner.





Strategic Partnerships

PSTA works closely with local and regional transportation partners to prioritize transit projects as part of the multi-modal transportation network. The Pinellas MPO prioritizes transportation projects for funding through various Federal and State programs. Regional projects included on the MPO's list are brought forth to the Transportation Management Area Group, which includes representation from the three MPOs in the Tampa Bay urbanized area (Hillsborough, Pasco, and Pinellas), for prioritization at the regional level. TBARTA is working to incorporate regional transit priorities into a cohesive transit vision in its first Regional Transit Development Plan, *Envision 2030*. Partnerships with each of these agencies to prioritize PSTA projects at the local and regional level are critical to receive funding through certain state and federal programs.

Transportation Project Coordination

PSTA staff regularly meet with local jurisdictions and FDOT in the review of roadway projects to coordinate safe bus stop and/or bus bay locations, shelter permitting, roadway modification impacts to operations, and maintenance of traffic. Since PSTA's vision plan includes premium transit on many corridors that have current or planned major roadway projects, staff are coordinating closely with FDOT to integrate premium transit services and features in design plans where possible and appropriate. Enhanced transit improvements such as shoulder-running buses, bus bays, bus bypass lanes, queue jumps, transit signal priority, enhanced stops, and bicycle/pedestrian access infrastructure could be considered as part of these projects. Deliberate and thoughtful inter-agency dialogue will help to ensure projects are carefully coordinated to complement each other and/or leverage available funding for improvements.

As noted earlier, PSTA is also coordinating with Pinellas County and the City of St. Petersburg on implementation of Transit Signal Priority (TSP) for the Central Avenue BRT project. Additional coordination is planned to extend the Pinellas County fiber network to the PSTA facility to allow for expansion of TSP to other corridors.

Recent, current, or upcoming major projects that include a transit component or affect transit services include the following.

- 34th Street Resurfacing (MPO, FDOT, City of St. Petersburg)
- Alt 19 Corridor Study (MPO, FDOT)
- US-19 Interchange and Safety Projects (FDOT)
- Bus on Shoulders Construction (FDOT)
- Gateway Master Plan and Intermodal Center Project (MPO, FDOT)
- Tampa Bay Express Projects (FDOT)
- Tampa Bay Regional Transit Feasibility Plan (RTFP) and Regional Rapid Transit PD&E (FDOT, HART, TBARTA)
- Pasadena Ave Resurfacing (FDOT)
- Priority Corridor Studies (MPO, FDOT, Local Jurisdiction)
- Roadway Safety Audits (FDOT, Local Jurisdictions)



- Various Complete Streets and Safety Projects (Clearwater, Dunedin, St. Petersburg, Pinellas County)
- Vision Zero (MPO, FDOT, Local Jurisdictions)
- Envision 2030 Regional Transit Development Plan (TBARTA)

Development Coordination and Review

Staff work closely with local communities to review development and redevelopment plans and incorporate passenger amenities as part of the project. This program has been successful in terms of the placement of additional passenger shelters and benches in the community. Staff participates with local communities on redevelopment projects and provides input on conceptual site designs with the objective of improving transit access through site design, enhanced transit facility partnerships, and placement of passenger amenities.

PSTA's TRAC plans to continue its STAR award program, which recognizes developers who install bicycle, pedestrian, and transit amenities that make it easier for bus riders to access the development. The program also recognizes local jurisdictions that have policies in place that encourage developers to do this. Four TRAC STAR awards were awarded in 2019.

UPASS/CPASS Program

In 2014, PSTA implemented a contract Universal Pass (UPASS) Program with St. Petersburg, St. Petersburg College, USF St. Petersburg, and MYcroSchool Pinellas. This program allows agency employees and students to get unlimited rides by simply showing their identification badges to the driver. Each agency/school pays a set fee to PSTA for this benefit. PSTA plans to evaluate and pursue similar UPASS program opportunities with other major employers and colleges/universities. Since its inception, monthly UPASS ridership has grown from 10,000 rides per month to well over 40,000 rides per month. PSTA enters similar partnerships with business through a program called the Corporate Pass (CPASS). PSTA has CPASS agreements with five businesses all of which are in the hospitality industry. PSTA plans to provide UPASS/CPASS trips through the Flamingo Fares system once it is fully implemented. PSTA's UPASS & CPASS program currently includes the following:

- UPASS Partners:
 - University of South Florida
 - St. Petersburg College
 - Pinellas Technical College
 - MYcroSchool
 - City of St. Petersburg
 - Ready for Life

- CPASS Partners:
 - Tradewinds
 - United Maintenance Company Inc.
 - Opal Sands
 - Marriott Clearwater Beach and Sand Key



Optimal Plan Scenario

PSTA's Optimal Plan scenario builds upon the elements of the Maintenance Plan scenario and includes additional improvements to routes based on their service classification, new services, and capital improvements as detailed below and illustrated on Map 8-3. The implementation of projects outlined in the Optimal Plan Scenario would require additional funding.

Operating

Evening, Weekend and Frequency Improvements by Route Classification

Under the Optimal Plan scenario, improving frequency and span and the streamlining of the highest performing routes are prioritized first and then to the rest of the system using the route classifications previously described in Section 3. Limited stop overlay routes like the 52LX are recommended for most core routes, eventually transitioning to either BRT or express service. Evening and weekend span and frequency are recommended for most routes in the other classifications given that service is extremely limited on much of the system during these periods.

Expanding PSTA's Innovative Mobility Programs

The Optimal Plan scenario also recommends expanding first/last mile mobility programs to supplement and complement the fixed-route network, especially in areas of the county and along corridors that are less transit supportive in terms of density, demographics, land use, and trip generators.

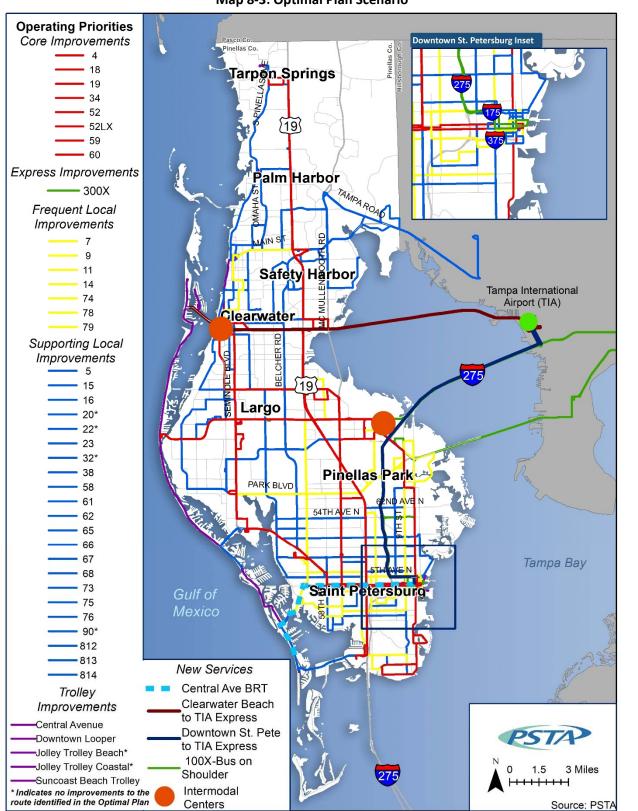
Clearwater Beach to Tampa International Airport (TPA) Express

The Clearwater Beach to TPA express service would provide regional connectively between Pinellas County beaches and TPA as well as major employment centers including downtown Clearwater, the Westshore Area, and downtown Tampa, supporting both tourism and regional economic development. This express service will complement local service provided by the existing and highly-successful Route 60, the most productive local route in the PSTA system. The Clearwater Beach to TPA express route is expected to attract new ridership with expedited, limited stop service seven days a week. PSTA is currently seeking additional funding sources beyond already identified state grant funding to fully fund the service.

Downtown St. Petersburg to Tampa International Airport Express

The downtown St. Petersburg to TPA express route would provide new regional connectivity between downtown St. Petersburg, the Gateway Area, and TPA using the Tampa Bay Next Express Lanes and related improvements. The service would connect directly into the Central Avenue BRT for service to the beaches. This route is expected to generate new ridership and support both the tourism industry and regional economic development. PSTA is working with partners to identify funding for this project. PSTA is also monitoring the PD&E for the Regional Rapid Transit route, which is planned in the same corridor.







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Autonomous Vehicle Service

PSTA is partnering with the City of St. Petersburg to pilot an autonomous vehicle route in downtown St. Petersburg. As noted under the Maintenance Plan scenario, PSTA is currently studying potential autonomous vehicle service on three pilot routes. This study will better position the agency to provide these services longer term as the technology evolves. Additional services may be added throughout the county with the successful implementation of an autonomous vehicle pilot in St. Petersburg.

Capital Improvements

Revenue Vehicle Expansion

As service increases, additional revenue vehicles will be required for new routes/services and increased frequencies.

Clearwater Intermodal Center

The Clearwater Intermodal Center would replace the currently-over-capacity Park Street Terminal in downtown Clearwater. A site selection process identified a preferred site adjacent to the Court Street and Myrtle Street intersection, and PSTA has begun to develop a scope of work in partnership with Clearwater staff to complete preliminary engineering and an application for Categorical Exclusion under the NEPA process. The proposed scope is aimed at delivering a concept site plan with up to three alternative designs. The scope also includes development of an incremental phasing plan that would allow for both temporary and ongoing permanent facilities to be placed on the property.

Gateway Intermodal Center

FDOT District 7 is currently undertaking a study to identify five regional intermodal center sites, one of which is in the Gateway area of Pinellas County. This study will identify and evaluate the top candidate sites for the intermodal center and produce design concepts based on the transportation modes to be served there. The Gateway intermodal center is also planned to serve as the future station for the Regional Rapid Transit route.

Other Capital Infrastructure

The Optimal Plan scenario assumes that the following infrastructure and support facilities will be needed as the services expand:

- Bus pull-outs
- Business access transit (BAT)/bus lanes
- Rehabilitation of support facilities
- Satellite maintenance facility
- Electric bus charging infrastructure

Planning

Under the Optimal Plan scenario, frequency and span improvements abd the streamlining of PSTA's highest performing routes are desired. Limited stop overlay routes are initially recommended for



most core routes, eventually transitioning to either BRT or express service. Transitioning to new premium transit services will require various planning efforts, such as corridor studies, National Environmental Policy Act (NEPA) assessments, and conceptual design.

Service planning efforts will also be necessary should funding become available to increase service span/frequency for PSTA's existing routes as identified in the Optimal Plan scenario.

10-Year Financial Plan

This section presents the 10-year financial plan for this TDP major update. The financial plan reflects operating and capital expenditures and anticipated revenues to maintain PSTA's existing service levels and implement the Central Avenue BRT project under the Maintenance Plan scenario. This is considered a snapshot of conditions and assumptions as of February 2020. Changes to the base year and assumptions occur annually as part of the budget cycle and will be updated with each Progress Report.

Cost Assumptions

Expenditures for PSTA's existing services are based on the agency's adopted FY 2020 budget and adjusted annually based on the specific type of expenditure.

Capital cost estimates for the Central Avenue BRT project were developed in accordance with FTA guidelines using the latest revision of FTA's Standard Cost Categories (SCC) and derived from multiple sources. Unit costs associated with civil and structural construction elements similar for both transit and highway construction projects were based on cost data published in FDOT's Item Average Unit Costs. For unit costs associated with transit specific items such as stations or communications, historical cost data from similar transit projects has been compared and adjusted to reflect specific project needs. All cost resources have been adjusted to reflect current local St. Petersburg rates and conditions.

Operations and Maintenance (O&M) cost estimates for the BRT project were developed using a cost allocation model based on PSTA's Budget office estimated 2020 operating costs. Current costs were escalated to 2022 dollars at an annual rate of 4.5% to reflect the opening year of the service and escalated each year thereafter to adjust for inflation and general cost increases. The methodology and detailed assumptions used to develop the Central Avenue BRT project capital and operating costs are documented in PSTA's application for Small Starts funding under the Federal Transit Administration (FTA) Capital Investment Grant (CIG) program.

Revenue Assumptions

Multiple Federal, State, and local revenue sources fund the existing system costs as well as the additional capital and O&M costs associated with the Central Ave BRT project.

Federal Sources

FTA Section 5307 Urbanized Area (UZA) Funds

These funds consist of a portion of the FTA Section 5307 UZA formula grant funds received annually by PSTA that are used for eligible preventive maintenance expenses. The annual revenue levels from Section 5307 funds were included through FY 2030 and were assumed to decrease by 1.5% annually.





FTA Enhanced Mobility (5310) Funds

This formula grant program provides funding for capital and operating costs related to services and facility improvements to address the transportation needs of older adults and persons with disabilities that go beyond those required by the Americans with Disabilities Act (ADA). The annual revenue levels from Section 5310 funds were included through FY 2030 and were assumed to decrease by 1.5% annually.

FTA Section 5305 Planning Programs

PSTA shares responsibilities for transit planning with Forward Pinellas. These planning funds are distributed through a grant-sharing agreement with Forward Pinellas to provide funds to PSTA to carry out its duties and activities. Annual revenue from planning funds was included through FY 2030 at a consistent amount each year.

State Operating Assistance

State contributions consist of two major forms of assistance—State block grants and route-specific operating assistance. Funding from other FDOT grant programs, such as the Service Development Grant Program and the Urban Corridor Program, also contribute to the operations of the PSTA system.

- Funding from the State block grant program is assumed to increase at a rate of 2.1% through FY 2030. In FY 2020, PSTA received more than \$4.7 million in State block grant funds.
- Funding from FDOT's Service Development Grant Program is used to support operating new services in the startup phase. The grant program is a 50/50 match (after fares) that can be used in the first three years of the new or improved service. In FY 2016, PSTA received \$980,000 for service expansions to night and weekend service across the county. It was also awarded an additional \$900,000 for the downtown St. Petersburg circulator service expansion and electric bus demonstration beginning in FY 2019 as a complementary service to the BRT. PSTA will submit its application in Spring 2020 for a service development grant for support of the Central Avenue BRT service starting in State Fiscal Year (SFY) 2021/22, which runs from July 1, 2021, through June 30, 2022.
- Funding from the State Mobility Enhancement and Transportation Disadvantaged programs totaled more than \$4.7 million in FY 2020, with an expected growth rate of 2.1%.

Existing Local Sources

The PSTA system, similar to other systems throughout the US, has seen a general decline in ridership, averaging a 1% loss annually over the past two years. Over the same period, the farebox recovery average has declined almost 6% annually as a combined result of expanding reduced fare pass programs with general declining ridership. Additionally, over the past few years, PSTA made improvements to its night and weekend service to increase the attractiveness of transit usage and has seen a stabilization in ridership.

Despite the slightly decreased ridership throughout the PSTA system over the past few years, the Central Avenue Trolley ridership has grown an average of 4% annually with a route farebox recovery of





20% in FY 2019, 7% above the system average. This route generally serves the Central Avenue BRT route. With the improved service of the BRT, PSTA is conservatively anticipating a route farebox recovery of 16% for the new service, thus further stabilizing the decline in passenger fares and farebox recovery throughout the system. A systemwide farebox recovery is conservatively estimated to remain stable at approximately 10% in the opening year.

In addition to passenger fares, advertising and interest income on investments, PSTA receives two primary sources of local funding—property tax revenue and local service contracts with specific municipalities.

PSTA Ad Valorem Taxes

PSTA is an independent taxing authority created by a Special Act of the Florida Legislature that permits it to levy a property tax not to exceed 0.75 mills. Tax receipts collected in FY 2020 were \$53 million. PSTA anticipates general growth in tax receipts of about 4.5% annually, in accordance with Pinellas County projections.

Local Discretionary Funds – Local Beach Trolley Agreements

Cities and other jurisdictions such as unincorporated Pinellas County, Clearwater, Dunedin, and Tarpon Springs, supplement their regular fixed-route service with a contract for additional trolley services for the Jolley Trolley Beach routes (Clearwater) and Jolley Trolley Coastal route. Additionally, the City of St. Petersburg contributes to funding for the Central Avenue Trolley to create a fare free and reduced fare zone in downtown.

Although most cities in Pinellas County are within the PSTA service area, residents of some cities, including St. Pete Beach and Treasure Island, do not pay ad valorem taxes directly to PSTA. For St. Pete Beach and Treasure Island, trolley service such as the Central Avenue Trolley and the Suncoast Beach Trolley is contracted through the local government to extend routes to these areas. Once the Central Avenue BRT begins operation, St. Pete Beach and Treasure Island will continue their supplemental service operational support to PSTA system trolley services, and the City of St. Petersburg will fund the maintenance of the fixed running way for the BRT.

Capital Funding for the Central Avenue BRT Project

Six revenue sources proposed to fund the capital costs of the PSTA Central Avenue BRT project.

FTA Capital Investment Grant (Small Starts) Program

PSTA is applying for FTA Section 5309 Capital Investment Grant (CIG) funding under the exempt category of the grant program. The Central Avenue BRT project meets the Small Starts requirements in that funding levels sought for the project are less than \$100 million in FTA CIG funding and the project has a total capital cost of less than \$300 million in Year of Expenditure (YOE) dollars. With a capital cost of under \$50 million and cost per mile less than \$2 million, the project qualifies as exempt. A total of \$21.83 million in capital funding is proposed from the FTA CIG program, representing 49.7% of proposed funding.





FDOT Design Funding

Through its support of transit projects across the state, FDOT has programmed \$1 million to support ongoing engineering tasks related to the refinement of the Central Avenue BRT project. This funding comprises 2.3% of the total capital cost of the project.

FDOT New Starts Transit Program (NSTP)

In support of major capital investment transit projects applying for the FTA CIG Program, FDOT has pledged to provide up to 50% of the non-Federal share of eligible capital cost project activities to the Central Avenue BRT project, and it has allocated \$9.5 million in its adopted SFY 2020 budget for a 21.6% contribution to the total capital cost of the project.

City of St. Petersburg Local Discretionary Funds

The City of St. Petersburg administration and the City Council are highly supportive of public transportation and recognize the impact it has on the vitality of the community. As such, the City has been a primary partner in the project's development and success through its contribution of dedicated right-of-way through the proposed conversion of general use lanes to business access and transit (BAT) lanes for use by the BRT.

Additionally, the City Council has committed a local funding contribution of \$4 million (9.1% of the project) through Tax Increment Financing (TIF) funds related to the Intown Community Redevelopment Area (CRA) in downtown St. Petersburg and the District 11A Multimodal Impact Fee area. Both funding sources exist and are already collected. In 2017, the City Council unanimously passed a resolution supporting the project and requesting that City administration identify the specific sources to be included in the FY 2019 budget; in June 2019, the City Council approved an interlocal agreement for Central Avenue BRT funding.

PSTA Capital Reserve Funds

PSTA was created by a Special Act of the Florida Legislature that permits the authority to levy a property tax not to exceed 0.75 mills. Although most of the funding is used for operations, PSTA has a long history of saving budget surpluses for matching opportunities for State grants and large capital expenditures such as new facilities. As such, it has accumulated a Capital Reserve of \$26.3 million as of FY 2020. Of this capital reserve, \$7.6 million has been specifically designated and programmed for the design, construction, and general advancement of the Central Avenue BRT, as evidenced by the adopted five-year capital budget for FYs 2020–2024. This contribution comprises 17.3% of the project capital cost. A little over \$0.5 million from capital reserves was adopted as part of the PSTA FY 2019 budget, and just over \$3.5 million from the capital reserves has been adopted as part of PSTA FY 2020 budget. The remaining balance of \$3.5 million will be confirmed through the adoption of the PSTA FY 2021 budget prior to the beginning of the fiscal year (October 1, 2020).





New Revenue Sources

Based on community and elected official support of public transportation in Pinellas County and overall needs for improved transportation, the Pinellas County Commission held workshops in July 2019 and September 2019 to explore new funding sources for transportation. Presented were needs for continued county-wide service operations and state of good repair, as detailed in the agency's 2018 Transit Asset Management Plan in addition to service expansions beyond the Central Avenue BRT. The Board of County Commissioners, in cooperation with Forward Pinellas, will continue to explore options for increased funding for transportation across the county, including roadway, bicycle and pedestrian safety, and public transportation improvements for maintenance of service and county-wide transit expansion projects.

Table 8-1 presents PSTA's 10-year financial plan for the Maintenance Plan scenario, as of February 2020.

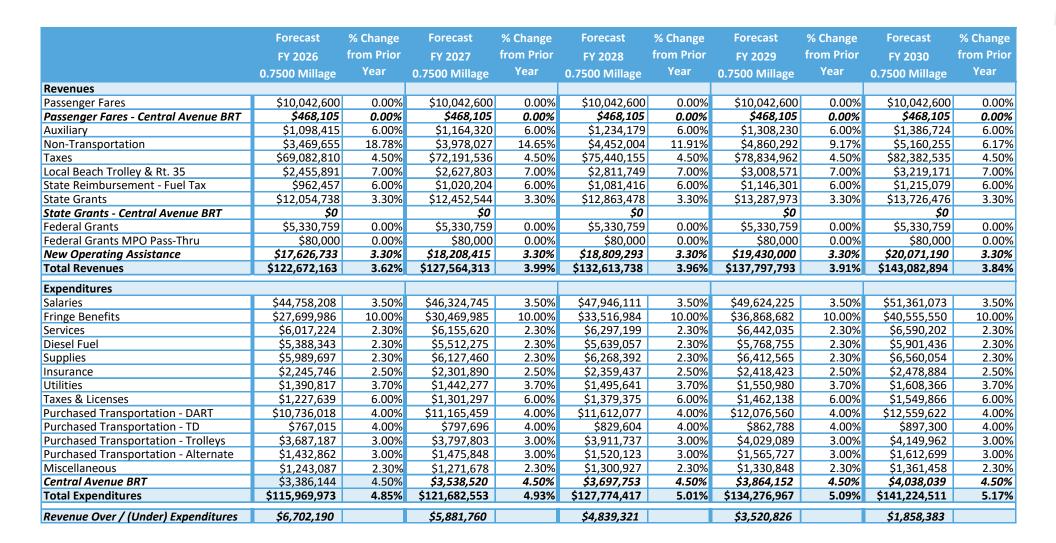




Table 8-1: PSTA 10-Year Financial Plan (Maintenance Plan Scenario)

	Adopted Budget	Forecast	% Change	Forecast						
	FY 2020	FY 2021	from Prior	FY 2022	from Prior	FY 2023	from Prior	FY 2024	from Prior	FY 2025
	0.7500 Millage	0.7500 Millage	Year	0.7500 Millage						
Revenues										
Passenger Fares	\$10,042,600	\$10,042,600	0.00%	\$10,042,600	0.00%	\$10,042,600	0.00%	\$10,042,600	0.00%	\$10,042,600
Passenger Fares - Central Avenue BRT				\$312,070		\$468,105	50.00%	\$468,105	0.00%	\$468,105
Auxiliary	\$760,000	\$820,800	8.00%	\$870,048	6.00%	\$922,251	6.00%	\$977,586	6.00%	\$1,036,241
Non-Transportation	\$974,900	\$843,436	-13.48%	\$1,198,429	42.09%	\$1,725,995	44.02%	\$2,330,600	35.03%	\$2,921,018
Taxes	\$53,048,395	\$55,435,573	4.50%	\$57,930,174		\$60,537,032	4.50%	\$63,261,198	4.50%	\$66,107,952
Local Beach Trolley & Rt. 35	\$1,636,464	\$1,751,016	7.00%	\$1,873,587	7.00%	\$2,004,738	7.00%	\$2,145,070	7.00%	\$2,295,225
State Reimbursement - Fuel Tax	\$665,930	\$719,204	8.00%	\$762,356	6.00%	\$808,097	6.00%	\$856,583	6.00%	\$907,978
State Grants	\$10,855,820	\$10,996,946	1.30%	\$10,711,025	-2.60%	\$10,935,957	2.10%	\$11,296,844	3.30%	\$11,669,640
State Grants - Central Avenue BRT				\$790,462		\$1,249,581	58.08%	\$1,316,344	5.34%	\$462,037
Federal Grants	\$5,512,677	\$5,512,677		\$5,330,759	-3.30%	\$5,330,759	0.00%	\$5,330,759	0.00%	\$5,330,759
Federal Grants MPO Pass-Thru	\$80,000	\$80,000	0.00%	\$80,000	0.00%	\$80,000	0.00%	\$80,000	0.00%	\$80,000
New Operating Assistance	\$0	\$15,000,000		\$15,510,000	3.40%	\$16,006,320	3.20%	\$16,518,522	3.20%	\$17,063,633
Total Revenues	\$83,576,786	\$101,202,252	21.09%	\$105,411,510	4.16%	\$110,111,435	4.46%	\$114,624,211	4.10%	\$118,385,188
Expenditures										
Salaries	\$36,410,831	\$37,685,210	3.50%	\$39,004,192	3.50%	\$40,369,339	3.50%	\$41,782,266	3.50%	\$43,244,645
Fringe Benefits	\$15,635,920	\$17,199,512	10.00%	\$18,919,463	10.00%	\$20,811,409	10.00%	\$22,892,550	10.00%	\$25,181,805
Services	\$4,988,310	\$5,370,541	7.66%	\$5,494,063	2.30%	\$5,620,426	2.30%	\$5,749,696	2.30%	\$5,881,939
Diesel Fuel	\$4,701,120	\$4,809,246	2.30%	\$4,919,859	2.30%	\$5,033,016	2.30%	\$5,148,775	2.30%	\$5,267,197
Supplies	\$5,225,780	\$5,345,973	2.30%	\$5,468,930	2.30%	\$5,594,715	2.30%	\$5,723,393	2.30%	\$5,855,031
Insurance	\$1,936,500	\$1,984,913	2.50%	\$2,034,536	2.50%	\$2,085,399	2.50%	\$2,137,534	2.50%	\$2,190,972
Utilities	\$1,118,400	\$1,159,781	3.70%	\$1,202,693	3.70%	\$1,247,193	3.70%	\$1,293,339	3.70%	\$1,341,193
Taxes & Licenses	\$849,410	\$917,363	8.00%	\$972,405	6.00%	\$1,030,749	6.00%	\$1,092,594	6.00%	\$1,158,150
Purchased Transportation - DART	\$8,476,680	\$8,824,224	4.10%	\$9,177,193	4.00%	\$9,544,281	4.00%	\$9,926,052	4.00%	\$10,323,094
Purchased Transportation - TD	\$605,600	\$630,430	4.10%	\$655,647	4.00%	\$681,873	4.00%	\$709,148	4.00%	\$737,514
Purchased Transportation - Trolleys	\$3,087,960	\$3,180,599	3.00%	\$3,276,017	3.00%	\$3,374,298	3.00%	\$3,475,527	3.00%	\$3,579,793
Purchased Transportation - Alternate	\$1,200,000	\$1,236,000	3.00%	\$1,273,080	3.00%	\$1,311,272	3.00%	\$1,350,610	3.00%	\$1,391,128
Miscellaneous	\$1,084,545	\$1,109,490	2.30%	\$1,135,008	2.30%	\$1,161,113	2.30%	\$1,187,819	2.30%	\$1,215,139
Central Avenue BRT				\$1,892,993		\$2,967,266	56.75%	\$3,100,793	4.50%	\$3,240,329
Total Expenditures	\$85,321,056	\$89,453,282	4.84%	\$95,426,079	6.68%	\$100,832,349	5.67%	\$105,570,096	4.70%	\$110,607,929
Revenue Over / (Under) Expenditures	(\$1,744,270)	\$11,748,970		\$9,985,431		\$9,279,086		\$9,054,115		\$7,777,259









Appendix A Route Performance Monitoring System

Background

- In January 2015, PSTA staff developed the Route Performance Monitoring System in support of the agency's objective of making more data-driven decisions.
- The performance model, or Route Performance Monitoring System, uses the latest full fiscal year ridership, revenue, and cost data collected and distributed by departments throughout the agency to score route performance based on a balanced evaluation of ridership and revenue metrics.
- Previously, this model, in conjunction with a targeted review process of routes identified as low performing, has been used to identify and support Staff recommendations for multiple system wide changes.

Evaluation, Methodology, and Process

PSTA monitors passengers per revenue hour and mile for each route. Routes that fall below the median are further evaluated to determine what improvements could be made to improve ridership. From this process, the East Lake Connector and Route 444, which were the lowest performing routes, were eliminated since the last major TDP update. In October 2019, PSTA changed the three North County Connectors (Routes 812, 813, 814) from flex routes to supporting local fixed routes because they were low performing. Many daily riders said that the deviations were making it hard for them to get to work on time or to make transfers to other routes.

PSTA staff also regularly monitors on-time performance. Each bid period routes with on-time performance issues are targeted for scheduling changes to try to correct the issues. PSTA's standard is 75% on-time performance for fixed routes and defines "on-time" as 0–5 minutes from scheduled departure time from timepoints.



Appendix B Farebox Recovery Report

Annual Farebox Recovery Report (February 2020) Pinellas Suncoast Transit Authority (PSTA)

Current Farebox Recovery Ratio

The farebox recovery ratio for PSTA, the public transportation provider for Pinellas County, was 13.4% in FY 2019. This number shows a 39% decrease over the five-year period from FY 2015 to FY 2019.

Prior Year Fare Studies and Changes

The last PSTA fare change was implemented in 2015. As a result, the current full fare on the fixed-route system is \$2.25, \$1.10 for the reduced fare.

Strategies That Will Affect the Farebox Recovery Ratio

PSTA's 2021-2030 10-Year TDP Major Update identifies strategies that will be used to maintain or increase the farebox recovery ratio, including the following:

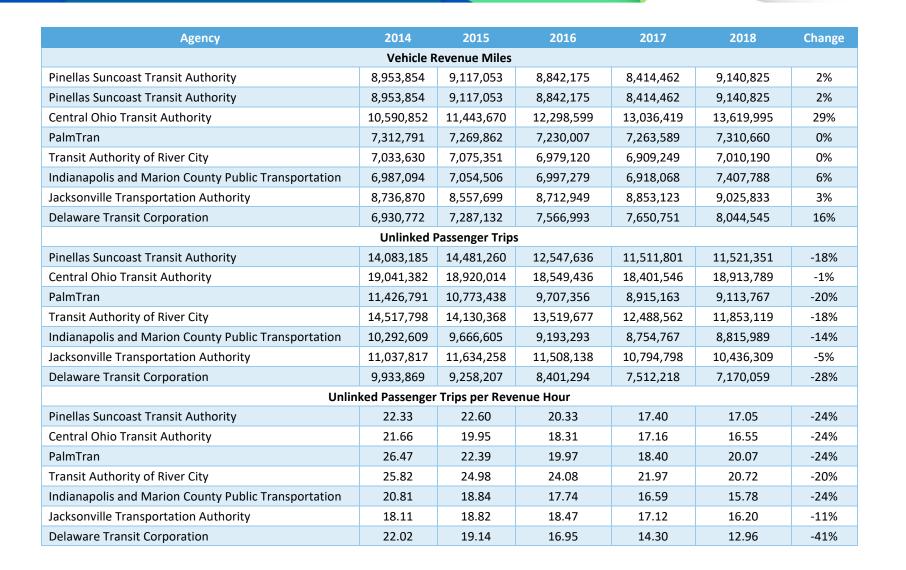
- Monitor key performance measures for individual fixed routes.
- Ensure that transit serves major activity centers, potentially increasing the effectiveness of service.
- Increase ridership through enhanced marketing and community relations activities.
- Meet with major employers, hotels, and other private entities to form public-private partnerships, including the use of incentives, to increase ridership.
- Minimize costs required to operate and administer transportation services.
- Evaluate the fare structure periodically.
- Monitor opportunities to secure additional funding to improve frequencies on existing routes and attract new riders.
- Add buses to improve frequencies and improve the customer experience and attract new riders as fiscally able.
- Conduct on-board surveys every three years to gather information on how to make services more convenient and useful to patrons.
- Complete ongoing preventive maintenance activities and replace fareboxes as needed to ensure the fare collection equipment is performing at optimum capacity.

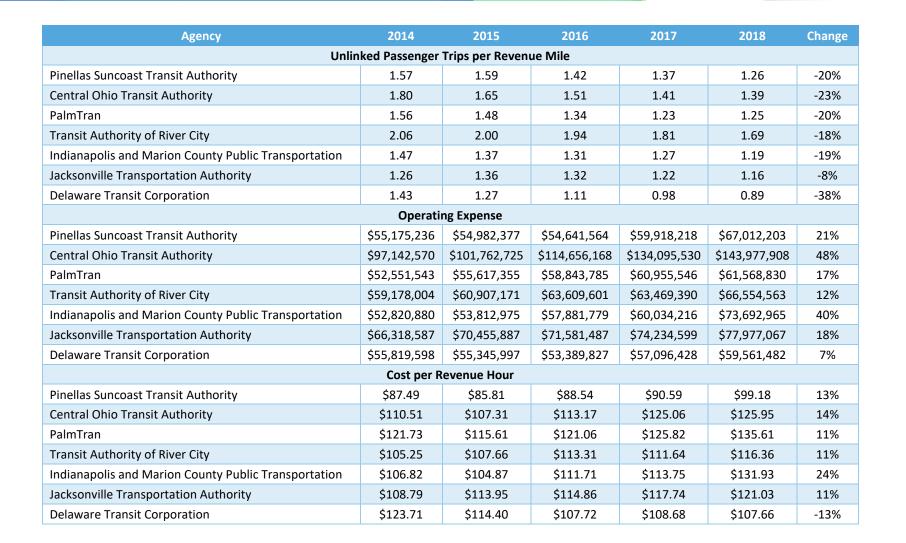


Appendix C Peer Agency Summary

Agency	2014	2015	2016	2017	2018	Change	
Service Area (Sq. Miles)							
Pinellas Suncoast Transit Authority	348	348	333	331	304	-13%	
Central Ohio Transit Authority	337	337	323	324	324	-4%	
PalmTran	365	365	365	365	365	0%	
Transit Authority of River City	357	357	357	357	357	0%	
Indianapolis and Marion County Public Transportation	396	396	396	396	396	0%	
Jacksonville Transportation Authority	800	798	798	798	797	0%	
Delaware Transit Corporation	1,949	1,949	1,949	1,949	1,949	0%	
	Service An	rea Population					
Pinellas Suncoast Transit Authority	850,758	944,553	985,625	980,147	1,075,854	26%	
Central Ohio Transit Authority	1,081,405	1,081,405	1,059,314	1,060,666	1,060,666	-2%	
PalmTran	1,268,782	1,268,782	1,268,782	1,268,782	1,268,782	0%	
Transit Authority of River City	806,893	806,893	806,893	806,893	806,893	0%	
Indianapolis and Marion County Public Transportation	928,281	928,281	928,281	928,281	928,281	0%	
Jacksonville Transportation Authority	985,050	1,001,311	1,021,375	1,036,907	1,054,770	7%	
Delaware Transit Corporation	925,749	935,614	945,934	952,065	961,939	4%	
Vehicle Revenue Hours							
Pinellas Suncoast Transit Authority	630,649	640,774	617,158	661,435	675,662	7%	
Central Ohio Transit Authority	879,037	948,298	1,013,167	1,072,219	1,143,094	30%	
PalmTran	431,696	481,081	486,055	484,467	454,023	5%	
Transit Authority of River City	562,267	565,742	561,365	568,499	571,974	2%	
Indianapolis and Marion County Public Transportation	494,489	513,137	518,142	527,752	558,577	13%	
Jacksonville Transportation Authority	609,595	618,327	623,183	630,492	644,292	6%	
Delaware Transit Corporation	451,206	483,784	495,613	525,381	553,260	23%	

PSTA





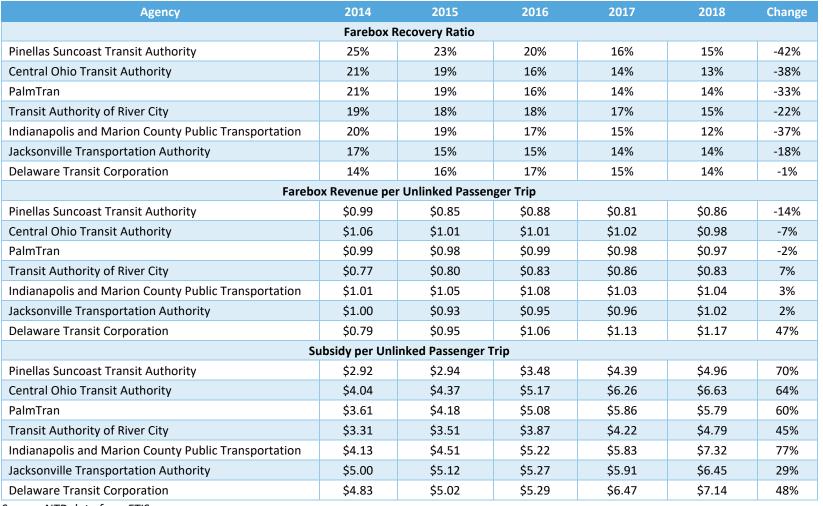






Agency	2014	2015	2016	2017	2018	Change	
Revenue Hours per Vehicle Operated in Maximum Service							
Pinellas Suncoast Transit Authority	3,604	3,600	3,696	4,213	3,312	-8%	
Central Ohio Transit Authority	3,196	3,339	3,434	3,610	4,265	33%	
PalmTran	3,321	3,672	3,739	3,756	3,492	5%	
Transit Authority of River City	3,177	3,251	3,245	3,176	3,126	-2%	
Indianapolis and Marion County Public Transportation	3,718	3,858	3,810	3,824	4,077	10%	
Jacksonville Transportation Authority	3,858	4,122	4,155	4,121	4,211	9%	
Delaware Transit Corporation	2,400	2,468	2,429	2,694	2,808	17%	
Revenue M	iles per Vehicle	Operated in Max	kimum Service				
Pinellas Suncoast Transit Authority	51,165	51,219	52,947	53,595	44,808	-12%	
Central Ohio Transit Authority	38,512	40,295	41,690	43,894	50,821	32%	
PalmTran	56,252	55,495	55,615	56,307	56,236	0%	
Transit Authority of River City	39,738	40,663	40,342	38,599	38,307	-4%	
Indianapolis and Marion County Public Transportation	52,535	53,041	51,451	50,131	54,071	3%	
Jacksonville Transportation Authority	55,297	57,051	58,086	57,864	58,992	7%	
Delaware Transit Corporation	36,866	37,179	37,093	39,235	40,835	11%	
Farebox Revenue							
Pinellas Suncoast Transit Authority	\$14,000,067	\$12,381,334	\$11,028,181	\$9,365,015	\$9,863,606	-30%	
Central Ohio Transit Authority	\$20,158,510	\$19,165,487	\$18,663,499	\$18,816,434	\$18,576,271	-8%	
PalmTran	\$11,297,234	\$10,593,192	\$9,570,184	\$8,726,217	\$8,831,865	-22%	
Transit Authority of River City	\$11,191,082	\$11,260,600	\$11,245,535	\$10,797,578	\$9,814,519	-12%	
Indianapolis and Marion County Public Transportation	\$10,354,692	\$10,187,027	\$9,903,750	\$8,998,862	\$9,146,823	-12%	
Jacksonville Transportation Authority	\$11,081,896	\$10,844,655	\$10,907,338	\$10,384,644	\$10,650,906	-4%	
Delaware Transit Corporation	\$7,882,153	\$8,828,230	\$8,912,277	\$8,519,744	\$8,364,209	6%	

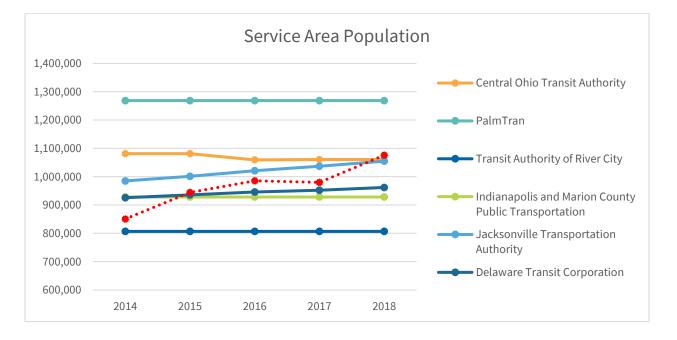




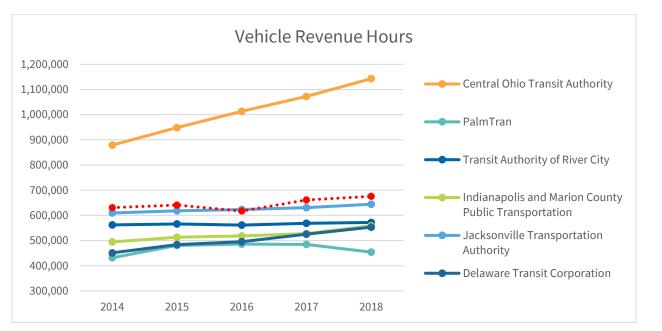
Source: NTD data from FTIS.

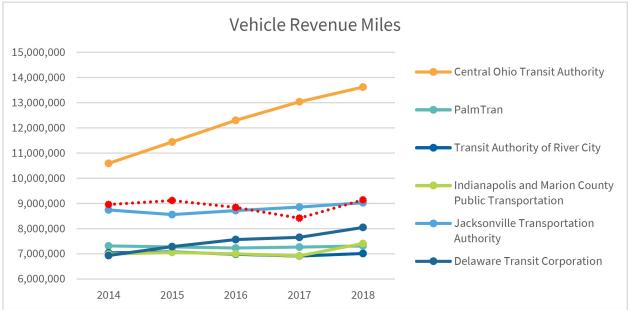


Service Area (Sq. Miles) 2500 - Central Ohio Transit Authority 2000 PalmTran 1500 Transit Authority of River City Indianapolis and Marion County 1000 **Public Transportation** Jacksonville Transportation 500 Authority Delaware Transit Corporation 0 2014 2015 2016 2018 2017

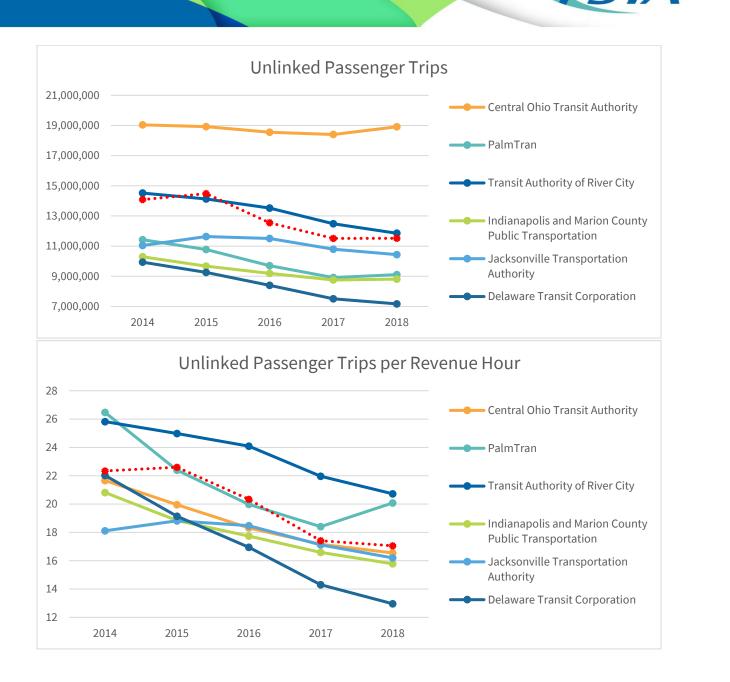




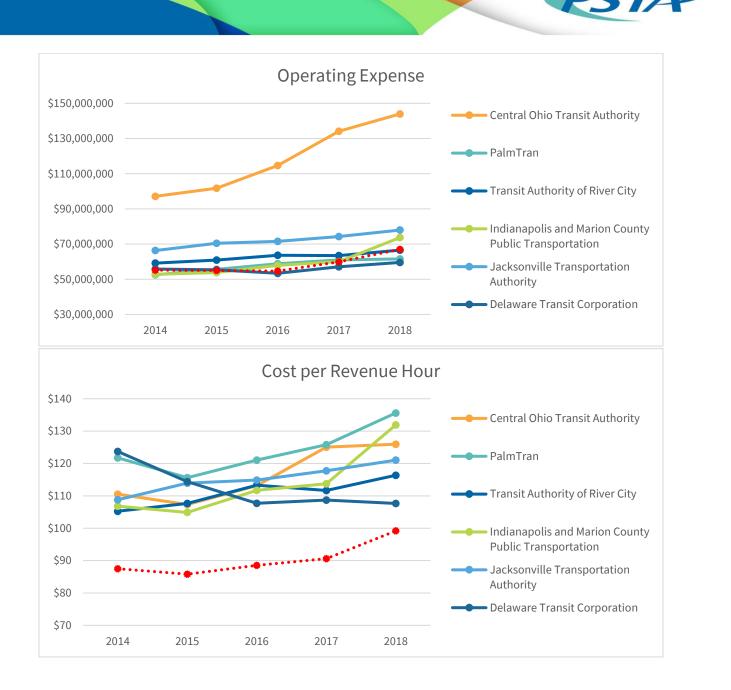




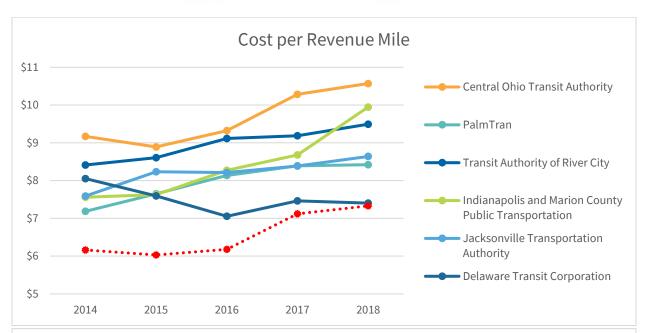


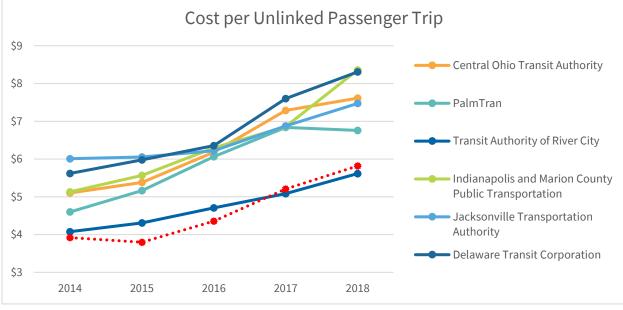




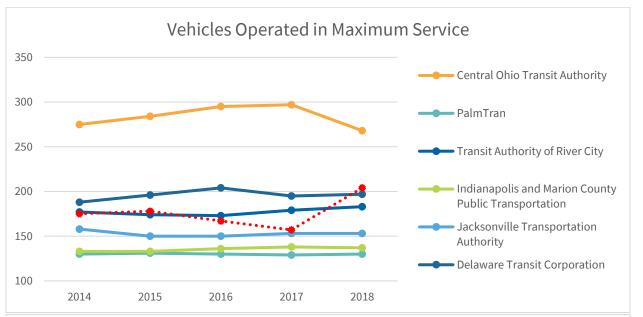


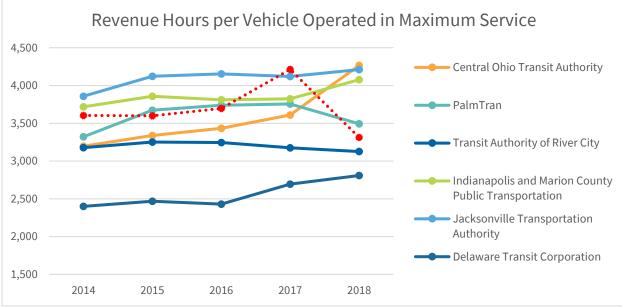




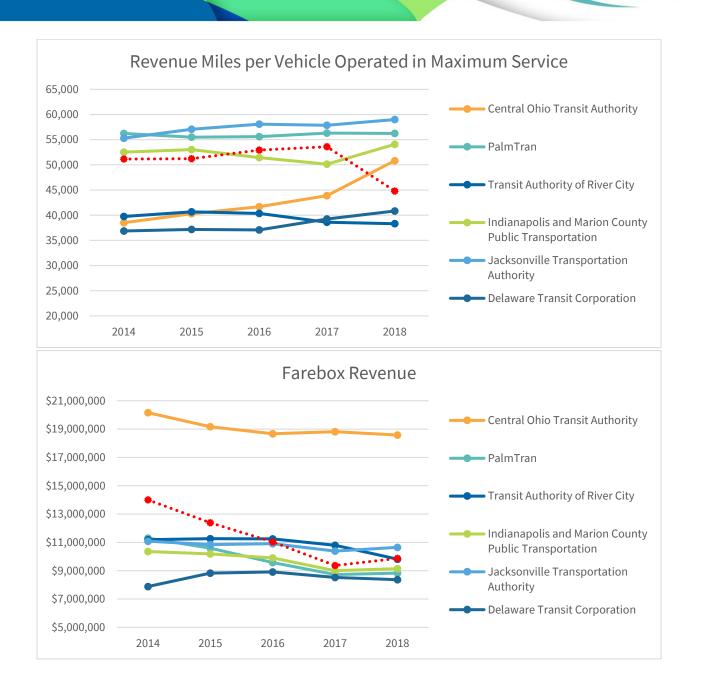




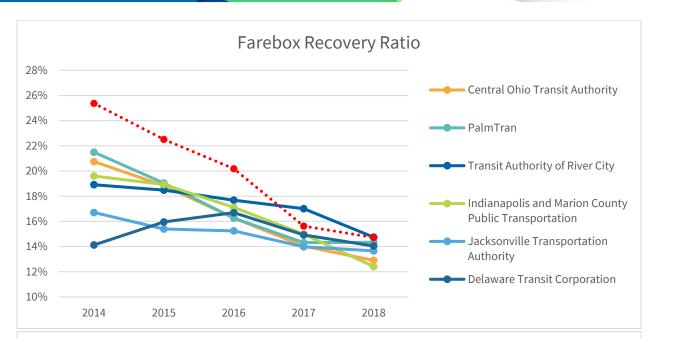


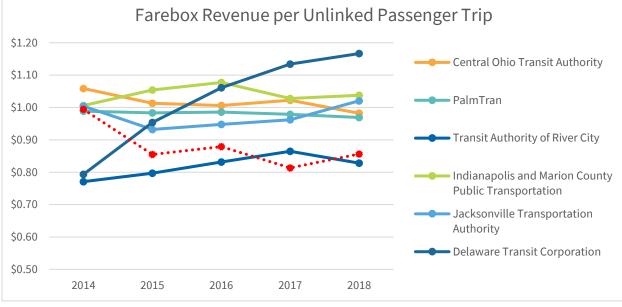




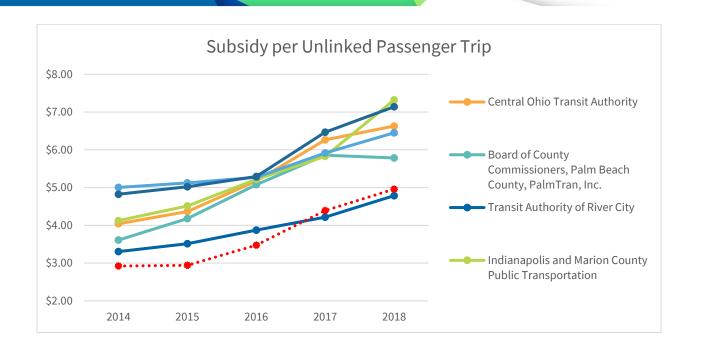














Appendix D Public Outreach Activities

Social Media Comments

	Linda	Schroed	ler Put a sign on buss or on every buss sign to have Bady in hand before getting on buss. That sure			
	Jay Ashworth I think Jarett Walker is about done with his we the Dublin bus system. Maybe you could hire him.	ork on	eople and the bus driver he gets delayed a lot when ing there fumbling to look for the bus pass and ly late. I hate when i see people just doing nothing			
	Like - Reply - Message - 1y		uss to look for buss pass 😒 😫 😦			
	Linda Schroeder What's up with calling for the time of the b always saying no real bus time then sometimes comes in 10 that's happened quite a bit lately	sage · 1y · Edited				
	Like - Reply - Message - 1y					
	Chuck Hill Why should I have to pay to ferry people around PSTA can't make it then drop it.	townif				
	Like · Reply · Message · 1y		sage · 1y			
	William Christopher Johnson My comment got deleted but all areas on this survey are just as equally important. Public transportation is not dependable.	ould never please me because I go in too many is. You need to concentrate on the areas where eaviest. Encourage companies out in the ovide transportation for their own employees.				
	Like Reply Message 1y	03	f it makes sense instead of running empty buses all an't be all things to all people.			
			sage - 1y			
	Bob Barrett My largo mall bus is reakin of spilt boozea 4 lo over the floor\$5.00. A DAYI I HATE IT!!!!	coall	here shouldn't be as many stops. Maybe like one			
	Like Reply Message 1y	0 2	² or so. It seems like its averaging about one every e DTSP so maybe that's why it's so frequent.			
)	Elizabeth Poindexter Busses 1hr apart #58 in a business co (Carillon)that employs tens of thousands of people is ridiculo		sage · 1y			
	have to wait a hour after arriving to work cause the bus only ru often then stops and starts back no where to wait except Bus s and wait 1 hour after work to go home for a 15 minuet ride? Craziness		proeder Totally disagree IIII Think about it thats far plocks if in the middle. Not everyone can walk that ay or even one day.			
	Like · Reply · Message · 1y	1	y · Message · 1y			
	Like · Repty · Message · Ty	Lilv Can	o Linda Schroeder they have the UBER for the bus			
	•	stops.				
		Like Rep	oly - Message - 1y			



PSTA





Leslie Granato How about not cutting services , longer hours, better service on weekends esp Sunday. Earlier starts for .major routes, better security at grand central, customer service phone hours from first to last bus etc etc etc. Stop sucking period

Like · Reply · Message · 1y

002 11

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6

1

2 Replies

Kathy Shoemate Strickland I totally do not understand in this day and age why reliable public transportation is not available 24/7 here like it has been for decades in all the other major cities where I have lived. Service people live and work here all hours all days. Why not have transportation for our workers.

Like · Reply · Message · 1y

Billy Hay Definitely need more weekend service. Sundays are once every 2-3 hours and all routes stop by 5. That should change. A bus every 30 minutes and routes run until 8-9 would suffice and might bring more people on the bus.

Like · Reply · Message · 1y



Bruce Munn We need much better Bus service on Sundays ! Please run all routes on Sundays ! I can"t get to Oldsmar from Clearwater !

Like - Reply - Message - 1y

Jean M Thompson Johnson Buses should run til midnite. #11 n 20. one hr too long; should be 30 mins. long time when u miss bus esp if they ran early. Pet peeve: Drivers who don't wear their seatbelts. What happen to Click it or ticket?

Like · Reply · Message · 1y · Edited

Robert W Vaughn Jr quit issuing new home building permits and this problem will work it self out....

Like · Reply · Message · 1y

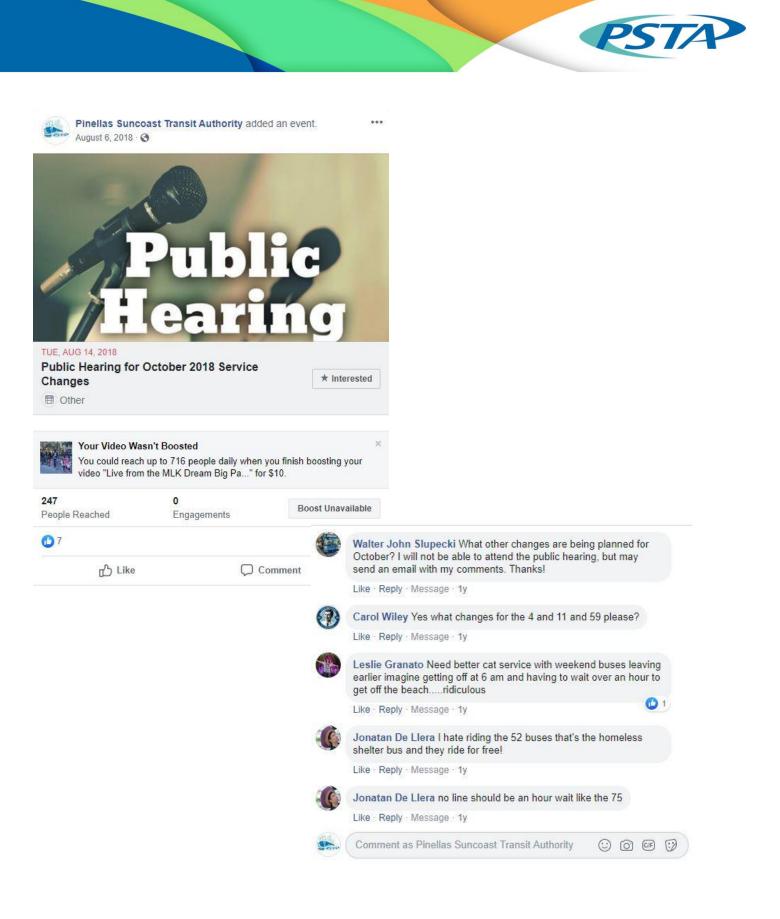


Jonatan De Llera I agree the bus stops are too close together. It will not kill anyone to walk a couple blocks and most the riders look like they need the exercise!

Like Reply Message 1y











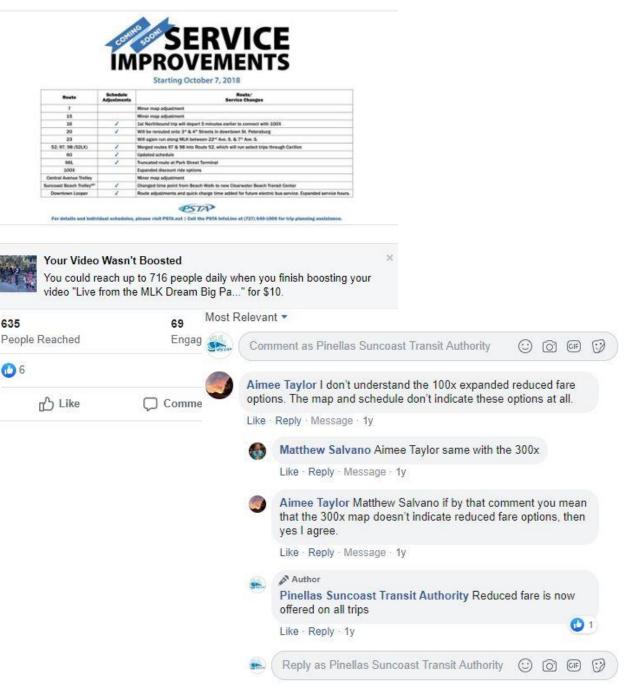
....



Pinellas Suncoast Transit Authority

Published by Alissa Kostyk [?] · October 7, 2018 · 🔇

Reminder: October service improvements start today! Please check the website for more info: https://www.psta.net/riding-psta/route-changes/ #ModernTransit

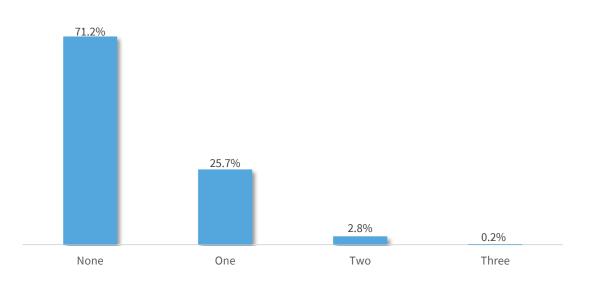


D-4

On-Board Survey Results

In addition to the rider profiles included in Section 4, other important takeaways from the on-board survey to consider are presented below.

PSTA operates a multi-nodal network, with transfer centers scattered throughout the county to facilitate connections. PSTA schedules its buses strategically at these nodes to provide seamless transfers among routes. Transferring among routes allows riders to travel anywhere in the county on one or two transfers. Based on the on-board survey results (weekdays only with expansion factor), 71.2% of respondents indicated that no transfer was required to complete their trip. About a quarter (25.7%) of respondents said that only one transfer was required to complete their trip, and 2.8% responded that two transfers were required to make their trip.



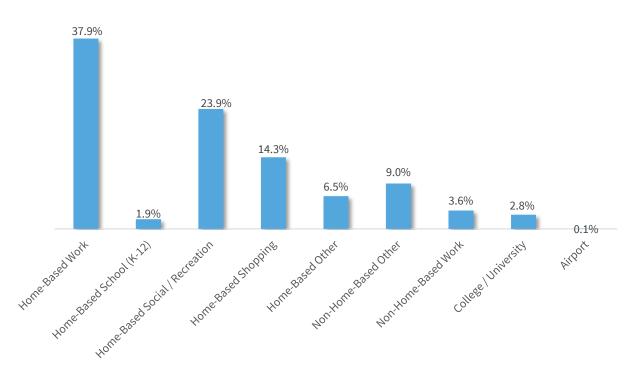
Trip Transfers

About 40% of travel is between home and work or commuting. Recreation and sightseeing were 23.9% of responses, and shopping was 14.3%. Recreation and sightseeing are an important source of ridership for PSTA, with routes such as the Central Avenue Trolley and Jolley Trolley services connecting important beach destinations in western Pinellas County with bars, restaurants, museums, and retail in downtown St. Petersburg.

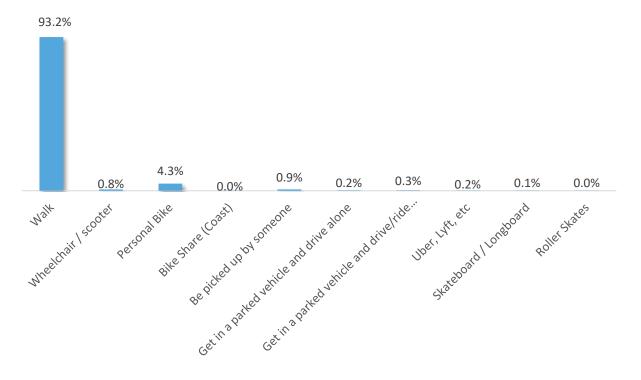
When using transit, the first/last-mile segment of the trip is always a concern, as, occasionally, bus stops are not always located adjacent to the origin or destination. PSTA has made several efforts to provide mobility options to get riders to/from their origin or destination point with programs such as Direct Connect and in cooperation with various TNCs such as Uber. Based on the survey, 93.2% of respondents indicated that their primary mode to get to/from their bus stop was walking followed by personal bicycle at 4.3%, which is likely why PSTA bike racks on-board their buses are nearly always full. Other access options such as wheelchairs, park-and-ride, and using Uber or Lyft did not receive enough responses to reach 1% of the total.



Trip Purpose



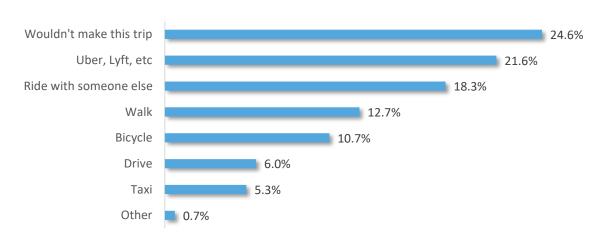
First/Last Mile Mode





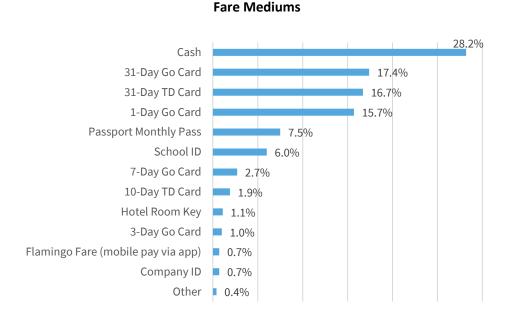
PSTA

There is a captive transit population in Pinellas County based on the number of low-income non-drivers in its market and the number of days a typical fixed-route rider uses PSTA services (seven days per week). Riders were asked what options they would have for their travel if PSTA or any transit service was unavailable. Almost one-quarter of respondents (24.6%) said they would not make their trip, 21.6% said they would use a TNC, and 18.3% said they would ask a friend or relative for a ride if transit was not available.



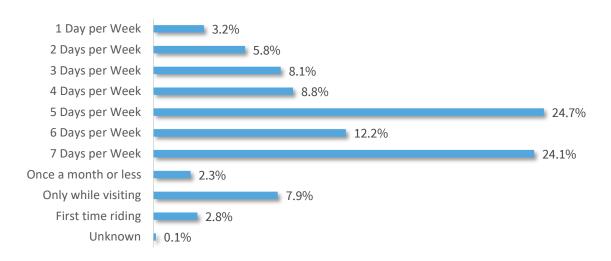
Transit Alternatives

Most PSTA riders use one or more of a wide range of ticket and pass products. Almost one-third of riders (28.2%) responded that they pay their fare using cash, and one-third (34.1%) use the monthly GO Card in either the regular or the TD option. As discussed in the trolley rider profile, the 1-Day GO Card is the primary form of payment for most visitors and tourists using trolley routes and other PSTA routes, with 15.7% of respondents indicating they used the all-day pass for their trip.



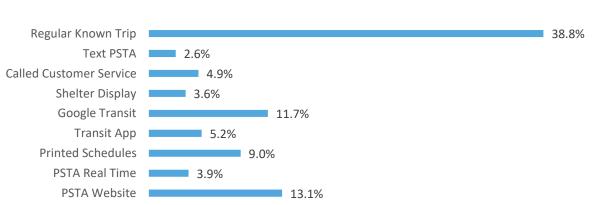


Based on the fixed-route and express rider profiles, a significant number of riders use PSTA services numerous times per week. Almost one-quarter of riders (24.1%) indicated that they use PSTA every day of the week, further suggesting that PSTA's market among Pinellas County residents (excluding tourists and visitors) is predominately transit-dependent. Another quarter of riders (24.7%) indicated that they used PSTA at least five days per week, indicating commuter use, and 10% use PSTA only while visiting and or said first time riding, which indicates a significant tourist and visitor market.



Level of PSTA Use

The way that riders get their information and plan their trips is another important factor to consider in transit planning. Based on the survey, almost 40% of respondents do not regularly look up information or schedules, as the trip is part of their regular commute. This speaks to the large number of regular users of PSTA services but also makes it even more important to aggressively share any route, schedule, or service changes to riders who do not regularly access PSTA information sources. Other responses fall below 15%, with the most popular sources of information being the PSTA website, Google Transit, and printed schedules.



Information Sources





Focus Group Summaries

Six focus group meetings with PSTA operating staff, including bus operators, supervisors, customer service representatives, and dispatchers, were conducted. Two occurred each day on May 30, May 31, and June 1, 2018. The purpose of these meetings was to:

- Gauge employee attitudes about the service and operations.
- Gather information from employees on public opinion about PSTA and its services, as expressed to them by other employees, PSTA customers, and the employee's friends, family, neighbors, and acquaintances.
- Gather general information on route and network performance.
- Gather detailed and specific information on customer needs and preferences.
- Gather detailed and specific information on operational issues such as passenger travel and loading patterns, delay and on-time performance, traffic impacts, bus stop locations, and other issues.

These meetings provided PSTA staff and the consultant team with valuable input that was used to generate recommendations that were included in the Community Bus Plan update.

Key Issues

Employees unanimously expressed their thanks for the opportunity to provide input to the plan. At several meetings, they expressed the wish that the administration would discuss things with them more often and more regularly. An operator at one meeting suggested that PSTA administrative staff and Board should ride the bus at least once a week and "then things would get better."

High Ridership and Overload Routes and Segments

Operators and supervisors noted several routes and locations where ridership is highest, and overloading occurs. Among those most cited are:

- Route 52 is most frequently cited as high ridership, overloading, and associated on-time performance issues. Operators suggested that the bus operate at 15-minute headways all day. Some operators pointed out that customers are not using the 97 and 98 and are not aware that the routes are related. Suggested designating them "52X," "52A" or something similar to highlight the relationship to Route 52.
- Route 60 is "crowded at all times."
- Route 34 at "Shoppes at Park Place, 26th Avenue S, and Grand Central Station have full loads, standing room only during PM peak period."
- Central Avenue Trolley
- Route 32 "when school lets out."
- Route 62
- Along 49th Street
- Route 18 "at certain times of day."
- Route 19



- Suncoast Beach Trolley "from the Sheraton to the beach."
- Route 79 "often runs late."

Operators suggested converting several of these routes to express services, or adding an overlay of express service, to relieve crowding during morning and afternoon peak periods.

Running Times and Scheduling Issues

Perceived problems with the bus schedules, travel times, layover times, and work assignments seemed to make up the largest single part of each discussion and brought out the most frustration. Insufficient travel and layover (or schedule recovery time), can cause late running, speeding, and other operational issues. Insufficient travel time is a standard complaint of bus operators and is, of course, self-serving for operators as individuals and as a group. More travel time makes the routes easier to operate and potentially generates more work hours, and higher levels of overtime pay for operators. Claims of insufficient running time must be confirmed by data from PSTA's on-board data collection systems. However, several specific issues arose in multiple meetings, and were reviewed in subsequent analysis.

- Nearly every group complained that there was insufficient time provided to travel between the shopping malls on Route 18. Several operators claimed that circulating around Tyrone Square Mall routinely takes 10 minutes and results in the bus being at least 5 minutes late on every trip.
- Operators said that Route 52 needs more frequent and more regular service and longer link running times, particularly in the portion operating on 49th Street. Ideas suggested for improving the route included converting some (maybe most) of the route's rips to express/skip-stop service, integrating Routes 97/98 into the Route52 schedule, and/or converting Routes 97/98 to express/skip stop service (these routes were express services at some point in the past).
- There are many missed passenger transfers between Routes 19 and 34, and between these routes and other routes that connect with them at the Largo Walmart. Because, until recently, these two routes were a single route and because the route provides a basic north-south connection in the county, transfer activity between the two routes is very high. The employees reported a high number of misconnections between the two routes, which they attribute to the scheduled arrival and departure times as well as insufficient scheduled travel time on the routes. Participants also reported a high level of radio communications for "holds" between the two routes in order to protect connections for passengers. Some of these holds cannot be honored due to the hold extending too long (3–5 minutes).
- Route 78 needs more time due to slow speed through the neighborhoods.
- Route 79 needs more time northbound at certain times.
- Route 100X eastbound needs more time (1–1.5 minutes) on the traffic signal at Westshore, the first light on the Tampa side.
- Other routes repeatedly noted for running time issues included Routes 14, 32 (especially during the afternoon school dismissal period) and 60.

There were general negative comments about the scheduling department at several meetings. Operators and others cited schedule issues including reduced travel and/or running time, awkward work pieces, and interlines that they don't understand that cause cascading delays across multiple routes





when buses fall behind schedule. Several offered the opinion that the Scheduling Department should be returned to the supervision of the Operations Department, rather than, as now, under Administration-Planning. Operators also suggested that operators (rather than union reps or supervisors) should review the schedules for running time and other issues before each bid. Some suggested that the impossible-to-run schedules and the very awkward pieces of work that they are given (like splits with spans close to 12 hours or 3 days of morning runs followed by 2 days of evening runs) are a major cause of PSTA's challenges with operator retention. Late running and missed-connections may also be pushing some customers from fixed-route to (more expensive) DART service.

Bus Stop Issues

Employees opined that many routes have too many bus stops and too close stop spacing. They cited several examples, primarily on the higher ridership routes (52, 18, 34, etc.). Some expressed the opinion that with fewer stops, some routes experiencing delay and late running could operate on time. Many operators suggested reducing the number of stops on most routes. Operators and other participants in the focus groups effectively were unanimous in recommending stop consolidation along some of the routes, such as Routes 14 and 60, primarily to increase travel speed and improve on-time performance.

Operators identified many locations where bus stops are in right-turn lanes or at other awkward locations that make it difficult for the buses to re-enter the traffic stream or make left turns, cause traffic problems, or are potentially dangerous for the buses and/or the customers. The following stops were mentioned as creating difficulties for operators attempting to merge into traffic, or causing other safety, operational or traffic concerns.

- Route 4: Dr. MLK Jr. Boulevard southbound at the 85th Avenue N far-side stop in Layby, traffic makes it difficult to go from layby to left-turn lane to make left turn at 83rd Avenue N.
- Route 11: Left turn from 34th Street N southbound to 58th Avenue N eastbound, light flashes yellow for left turns.
- Route 15: Unsignalized left on 37th Street at Beach Drive crossing, four lanes of traffic with no signal and then a fast right.
- Route 18: Long traffic lights on Seminole Boulevard at Park Boulevard, Johnson Boulevard.
- Route 18: On Seminole Boulevard at 119th Avenue N, the far-side stop blocks business driveway.
- Route 19: Northbound at Curlew, the last stop is 60 feet from the light in the turning lane, then the bus needs to get into a middle lane.
- Route 19: The route crosses over Gulf-to-Bay to Hampton but should use Drew.
- Routes 20, 22, 23: 22nd Avenue N at Tyrone Boulevard, 66th Street North westbound stops at Tyrone are too close together, eastbound stop at 22nd and 66th too close to 66th Street.
- Route 34: US-19 at Bryan Dairy Road/118th Avenue N southbound and northbound, bus stop is in turn lane; difficult to serve stop and then get back into turn lane.
- Route 34: Walmart on 34th St south of 82nd Avenue N, bus stop (with shelter) located at entrance to Walmart and Checkers; cars pull around and cut in front of bus to enter driveway; operators suggested moving it north to area in front of Checkers or across intersection to far side.
- Route 34: US-19 at Mainlands Boulevard northbound, far-side stop is in right-turn lane.



- Route 52: 49th Street southbound at 6th Avenue N, far side stop is too close to intersection; when buses stop at stop, back end of bus blocks crossing street.
- Route 52: Eastbay northbound (westbound) between Central Park Drive and Missouri Avenue (Alt US-19), bus stops are in right-turn lane.
- Route 52: Northbound, stop at Roosevelt Boulevard and Alma Avenue (last stop before Avalon Avenue) should not be served during daylight hours; too difficult to cross three lanes of traffic to get to left turn at Avalon Avenue.
- Route 52: 70th Avenue N westbound turning left on 49th Street N, left turn signal time is too short to make turn; time is only long enough for three cars or one bus.
- Routes 52, 58: 49th Street North at 118th Avenue North, many trucks trying to get to I-275; Gateway Express project will make area a problem for next five years.
- Route 52: South Fort Harrison Avenue, too many stops between Clearwater Largo Road N and downtown Clearwater.
- Route 52: Stops on 49th Street N at 140th Avenue N, stop may be unsafe (direction not indicated).
- Route 58: Eastbound and westbound where Bryan Dairy Road crosses over 66th Street N, stops are in merge areas on far side of 66th Street in merge area; westbound stop is particularly poorly placed; buses are in area where traffic is speeding up to merge into Bryan Dairy Road and then must stop to pick up passengers; very difficult for buses to gain speed to merge westbound.
- Route 59: Ulmerton Road and Sunrise Drive westbound (at Chick-fil-A), difficult to serve stop and then make left turn into Largo Mall, as traffic will not let bus cross multiple lanes.
- Route 59 (and others): Left turn from 34th Street N. to Ulmerton Road, signal wait time too long.
- Route 59: Ulmerton Road at 66th Street N, stop needed nearer to 66th Street in east and westbound directions.
- Route 60: Drivers cannot see oncoming traffic at left turn on Bayview Hill; suggest making left turn on Hampton; transfer for Routes 19 and 60 should be on Hampton Road, not in mall parking lot; going into malls adds too much time to routes.
- Route 68: 150th Avenue at Madeira Beach Fundamental School (Duhme Road), northbound stop blocks right-turning traffic, southbound stop far side of Duhme Road has no nearby crosswalk, which may encourage unsafe pedestrian crossings.
- Route 78: Westbound stop on Main Street at Keane Road, far-side stop too close to intersection, buses stopping block right lane of Keene Road southbound; stop needs to be moved west or eliminated (next stop is about 500 ft west).
- 49th Street southbound at 5th or 6th Avenue N, bus comes around corner and then stops and at bus stop, but back end of bus blocks crossing street.
- Bryan Dairy southbound at US-19, bus stop is in turning lane; need to serve stop and then get back into turning lane.
- Route 58: Bus crosses over 66th Street and gets off overpass, but going back into Bryan Dairy Road, bus stop at end of merge; buses are speeding up and then must stop.
- Rout 52: Northbound at East Bay Drive by library, westbound bus stops are in turn lane.





Unsafe Locations for Pedestrians

Operators and supervisors noted several locations where pedestrians have been hit by cars or buses due to crossing the road in an unsafe manner. This often occurs at transfer points, where customers make an unsafe crossing to catch an arriving (or departing) bus. Some of the noted locations include:

- US-19 at 66th Street, Gulf to Bay, Ulmerton Road, and 49th Avenue
- Tyrone Boulevard at Belcher Road
- Ulmerton Road and 49th Street N

Bicycle Issues

Operators brought up issues involving the bicycle racks on the buses, which are unpopular among operators. Several operators suggested eliminating the racks, though the issues they raise are specifically related to the popularity of bicycle racks among customers. Operators complain of insufficient space on the racks and in some locations, particularly routes serving the beach and on routes 52, 59, 60, Shoppes at Park Place, and on 34th Street. In these instances, there is tension or even altercations over the use of the racks.

Customer-Desired Destinations

Operators were asked to identify locations at which PSTA does not serve that are often requested by customers. Locations identified included:

- Up and down 31st Street S between 18th and 54th Avenues
- McMullen-Booth, over the bridge and Safety Harbor
- Extend Route 52 to Tarpon Springs and south to casino on 34th Street
- North County
- 62nd Avenue W north of 34th Street (old route 444 down to 49th Street)

"Plugs"

Operators spent a great deal of time discussing "plugs" (trippers) thatare operated off the extra-board on a daily basis on routes that are overcrowded or tend to get behind schedule. As with using the radio to arrange holds for transfers, trippers should be used for emergencies, not for the same purpose every day. Using trippers in this way cuts into the extra board and could leave the agency short-handed if multiple road calls or another emergency should occur. One daily tripper is used daily on the lowproductivity North County Connector routes, which should be a low-priority service.

Customer Behavior Issues

Many operators complained of "problem customers" on buses, with operators venting and relating anecdotes about customers—some homeless or with mental problems or body odor issues—and of customers committing criminal acts on the buses. Operators said that customers smoking marijuana and vaping on the buses is a growing issue. Operators complained that PSTA's emphasis on catering to customers can be excessive when dealing with customers whose behavior irritates, or even potentially endangers, other customers and operators. Many also complained that PSTA administration and



supervisors tend to be unsupportive and take the customer's side in disputes with operators. The operators suggested that PSTA should have stricter rules and enforcement of rules forbidding disruptions and promoting proper dress and hygiene on the bus. Several operators suggested adding transit police, as many larger cities have done.

Traffic Issues

Operators had many comments related to traffic issues along the routes, including long traffic signal times, traffic congestion and slow travel speeds, and unsafe operating conditions. Some comments related to traffic issues included the following:

- Coming across Cleveland Street eastbound at S Highland Avenue where it meets Gulf-to-Bay Boulevard, some vehicles do not trigger the light. One person noted he sat for 18 minutes on Route 60. The light changes, but only a few cars go through during each cycle.
- Route 18 going into Bay Pines, the light takes too long.
- 34th and Ulmerton Road, the light takes too long.
- At the Clearwater Beach roundabout going into the marina, traffic light adds a lot of time to route; they do pick up passengers there.
- On Route 52 at 49th and Ulmerton Road, Fort Harrison, and Chestnut and Court in downtown Clearwater, lights are not timed right.
- Lights at Gulf to Bay Boulevard, Cleveland Street, and S Highland Ave affect Route 60, bus can sit through five cycles.
- Route 11 going southbound at 58th Avenue and 34th Street, flashing yellow lights for left turns.
- On 49th Street N at 118th Avenue N, four bus routes try to get in at once; many trucks there trying to get to I-275; Gateway Express project will make this area a problem for the next five years.
- Wait time at light at 34th and Ulmerton Road is too long.
- Route 300x runs on Ulmerton Road, but could it connect to the Layby to connect to Layby routes; six other routes at Layby, and only express bus going to the airport and downtown Tampa.
- At 34th Street, West Bay Drive, Seminole and Park Boulevards, and Seminole and Johnson Boulevards, make left and then another red light at Johnson; lose five minutes at Seminole Mall.
- Light at 22nd Avenue N and 66th Street is very long; bus used to go through Tyrone Mall, now must go down Anvil Street (no bus stops there), then go east on 22nd Avenue N on 66th Street. Catch that light red, and then at 66th Street and Tyrone Boulevard N catch another one; lose 8–9 minutes by making loop and hitting two red lights, which affects every route that goes into Tyrone Mall. Suggest changing light at those intersections. Route 18 schedules 15 minutes to get from Tyrone Mall to Bay Pines, but this cannot be done—always at least five minutes late getting into Bay Pines.

Operational Suggestions

Operators also offered other operational suggestions to the routes, including the following:

- Run a connector bus within Carillon Office Park to relieve the pressure rather than run routes through Carillon.
- Routes 68, 7, and 15 are a mess—10 school zones on Route 68.
- Routes 7 and 15 have many ridership with wheelchairs and people with many kids. Operators are missing breaks and routes run late and are interlined. Routes 7 and 15 are two blocks apart, so people are running from one to the other. Suggest breaking up the interline.
- Closer connections between Routes 59 and 34. Also, Route 19 leaves five minutes before Route 34 gets to the connection point at Walmart at Roosevelt Boulevard. Needs better connection and education of operators about the history of the changes to the routes. Determine if some of these can connect at or near Walmart.
- Route 34 on Sunday is not doable as scheduled.
- Need to provide information to the customers such as paper schedules. Information kiosks on the bus, at stops. Many riders cannot read or c tell southbound vs. northbound.
- Route 100X should not go to Gateway first. Go downtown Tampa, then downtown St. Petersburg, then Gateway. Nobody will ride if it detours to Gateway; it is not express.
- Is Route 300X going to Tampa International Airport? This will add 45 minutes to the route. The traffic is backed up and it is the wrong market.
- Minor changes sometimes aren't shown on the paddle and the left-right book.
- Ivan sometimes goes out.
- Point out or highlight changes on the Ivan-on the left right sheet and paddle.
- Supervisors do not always put all the information on the Ivan.
- Trim more trees at stops in many places. For example, 4th Street southbound in St. Petersburg, 4th Avenue N going south at 4th and 5th Streets.
- New paddles and numbers need to match run numbers. The old system worked better. Some of the routes do not have the right route numbers, so it is hard to figure out leaving the operators confused.
- If you are going to give people free rides, give them bus passes. There is too much ambiguity with the passes. Hotels, name tags, IDs without stickers. They are giving the hotel IDs to relatives and friends. Drivers must figure out what ID is good. Sheraton is paying PSTA, so all guests and workers get free passes. This puts too much responsibility for this on the drivers.
- Dispatchers do not seem to know security procedures.
- Newer buses do not have as good pickup as the older ones. This makes a problem for maneuverability in some places.
- Why don't we get more clean diesel buses rather than the hybrids or electric?
- Cannot bring new buses into the bus terminal after two years.
- Bus layover points with no restrooms: Roy Hanna; Seminole Mall; Seminole City, must walk; 75th & Gulf Boulevard, must go into the Waffle House or Exxon Station. In Downtown St. Petersburg and Gateway Mall, the Office Depot used to allow us to use the restrooms, but they closed, and Burger King is a far walk. Countryside Mall is a bad layover spot and no place to go to the bathroom. In Indian Rocks, you need to go to the restroom at the laundromat or Speedway. Route 67 no restroom at all. Route 32 the bathroom is at Publix.



- Run more deadhead runs in revenue service. This would cover some of the areas without night service.
- Should not be running trolleys on Central Avenue in the downtown area. Put the trolley on 1st Avenues N and S and pedestrianize Central Avenue in that area.
- Advertise the Connector as another bus going to Tampa and that it runs on Saturday and Sunday.
- The Dunedin to Palm Harbor Connector is booked up.
- Need more service in North County.
- Safety Harbor Connector and Route 62 need to be better coordinated. They are only one minute apart now.
- Educate the hotels about how the system works. Have information available for the customers in the hotels and in the beach areas. Need a place to sell day passes.
- We need restrooms. Nothing is open at 5 AM. The agency doesn't help to find places to go to the bathroom. Sometimes late because of going to the bathroom outside the layover point.
- Not updating the travel time. Only 15 minutes on Route 15, but it takes 25 minutes. Need a new route from Grand Central Station to downtown and back. Seems like PSTA hasn't increased the travel time from years ago.
- Running a plug on the Connector route to pick up the slack for the deviation. This took 15 minutes out of the schedule and now paying overtime. Why?
- Route 65 should not be going to the hospital and this should not be a time point. Some of the time points are a problem.
- Need paper schedules. Put paper schedules on the platforms.
- Too many people are riding the DART service. Can't catch the bus, doesn't go where we need to go. When transfers were better, more of these people rode the fixed-route bus; 5-6 years ago, people rode 2.3 average buses per trip (more than 1 transfer per trip), now just 1. Got rid of Williams Park. This pushes people onto the DART service. Older people also use the Connector, but they aren't doing the transfers. Make older people and disabled feel welcome on the buses. The people now don't feel welcome, they delay the system. Need more time to take the time to tie down the wheelchairs. Can we make direct connect free for DART passengers to use the regular bus?
- Leave Routes 19 and 34 alone and do an express bus that overlays. Express 19 ran last year. Why did it stop?
- Route 100X needs to run seven days a week earlier and later so it can be used to get to sporting events, Ybor City, etc. Can't get to Tampa on the weekend right now.
- The system is for the tourists, not for the working person.
- The bad scheduling is chasing away drivers. Chick-fil-A pays \$17 an hour. Are people going to do this for \$11 an hour? Get cussed out because the buses are late every day. Offering a \$1,000 bonus for new drivers.
- PSTA needs to work on the times and connections, then we will be OK. Don't just use Google Maps; ride the buses at different times of day to see how long it takes to do the route.
- The real time information is giving customers misinformation sometimes. The real time predicts that you have eight minutes to get to the stop, but if the driver makes a light, it can get there



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five minutes earlier and people miss it. If the bus typically runs late and then it isn't late, it's a problem.

- Need to provide more information about routes in other systems that connect like Pasco, Sarasota, etc.
- Put machines at the terminals that will provide off-board fare collection, sell passes and tickets. The hours are not great enough to get the cards. Put up signs showing where the nearest place is to get the card. If people mainly used tickets or cards, there is spare time.
- Not everybody has a smartphone. We need to have the paper schedules.
- Try to make the schedules (running times) longer during spring break. Run extra service on the beach trolley.
- Put priority bus lanes on all main roads.
- Call center volume complaints are up.
- For Route 90, suggest running up 31st Street rather than 34th Street. Before this was unsuccessful because it wasn't advertised enough or ran long enough for people to find out about it.
- CAT Trolley gets overcrowded. Line up three buses to run at the same time from Grand Central Station to downtown.
- Route 11: Stop was moved from the train tracks at 28th Street and 22nd Avenue North in southbound direction. This is good.
- Route 59: the light at Chick-fil-a going into Largo Mall is too difficult to get over in traffic.
- Southbound on Clearwater Largo Road right before West Bay Drive on Route 52 should not be a time point. The stop at 140th also should not be a time point on Routes 52 and 97.
- At 49th Street and 140th Avenue the stop may be unsafe.
- There should be no bus stops in a turn lane anywhere.
- Time points should not be at a place where the bus cannot get out.
- On Route 4 operating Sundays, we are given 13 minutes southbound and 5 minutes northbound to go through Cochina Key. The bus misses a connection with Route 11. The 13 minutes southbound is too much. Why is Cochina Key a time point?
- On Route 18 Saturdays we are given 15 minutes to get to each time points, but this is not enough time. Need to go from Tyrone Mall to Bay Pines then Bay Pines to Seminole, but it takes 10 minutes just to get around Tyrone Mall. The lights are very long, and we never get to the time points on time. It takes 20 minutes from Seminole to Park Street. Even if speeding we still cannot make it.
- The time points should be at a place where you can stop, like with a cut to put the bus and someplace to go to the bathroom.
- Endpoints have nowhere for the operators to eat and no restrooms. Places starting to not let the operator use the bathrooms because some of the drivers have messed up the restrooms.
- Layover times are too short. Should not make the drivers operate in service during deadhead runs at the beginning of the run. Route 52 deadhead run follows Route 60, and 52 deadhead runs get pressed into service.





- Machines are not reading the cards. The system should be cashless like the Flamingo cards. Why do we not have machines at the terminals to sell the cards? Off board fare payments?
- Route 11 should not go to Crystal Lakes Manor.
- Do not put 2800 series buses on the main line routes. Pull them off the road as they are too slow. People can walk faster than the bus goes.
- Drivers do not always know nuances of stops. They stop at every stop, but some routes are not supposed to stop at some places.

