# 9 Funding

# 9.1 Introduction

This Chapter explores some of the funding mechanisms and processes that are used to continually improve Florida's system of airports. With a large system and historical funding totals close to \$500 million per year (federal, state, local, and other sources), these programs help the Florida Department of Transportation (FDOT) Aviation and Spaceports Office (ASO) and FDOT Districts prioritize project needs and identify funding resources.

A comparison is provided of total project funds identified in FDOT's Five Year Work Program and development estimates included in the 2017 – 2021 National Plan of Integrated Airport Systems (NPIAS) report. Additionally, the State Strategic Goal Assessment Tool (SSGAT) that identifies projects' ability to meet Florida Aviation System Plan (FASP) goals and Federal Aviation Administration (FAA) project categories is reviewed and the historical use of the Strategic Intermodal System (SIS) funding program is analyzed. Each of these analyses are detailed in the following sections.

# 9.2 Financial Comparison of Federal Needs and State Programming

The FDOT ASO operates the most diverse and dynamic state aviation system in the United States (U.S.). Though there are hundreds of operational airports within the state, only those that are publicly-owned and open for use by the public are eligible to receive funding from FDOT through the Florida Aviation Grant Program. Although there are other funding sources that airports may utilize, the Florida Aviation Grant Program is by far the largest and is the focus of the analysis in this task. This task summarizes the identified needs for the aviation system utilizing available information from both FDOT and the FAA.

# 9.2.1 Overview of Florida Aviation Grant Program

The FDOT ASO maintains a grant program to assist in providing a safe, cost-effective, and efficient statewide aviation system. FDOT grant funds help airports build and maintain runways and taxiways, eliminate airport hazards, protect airspace, develop plans, acquire land, and build terminals and other facilities.

Since 1983, the Florida Aviation Grant Program has been funded through Florida's use of aviation fuel taxes. Currently, a 6.9¢ per gallon tax is imposed on qualifying aviation fuel sales. Per the *Florida Aviation Project Handbook*, after administrative costs and commercial carrier refunds are taken out of the collected taxes, 92 percent of the remaining aviation fuel tax is deposited into the State Transportation Trust Fund (STTF). The outstanding eight percent of the remainder is deposited into the general revenue fund. The Florida Aviation Grant Program is funded through the STTF. Per Florida Statute (F.S.), at least 15 percent of the STTF must be allocated to the Office of Freight, Logistics and Passenger Operations (FLP). From there, funds



are allocated to the four modal offices. Specific funding amounts change each year, though the FDOT ASO has received over \$150 million in each of the last five years. Since 1990, over \$3 billion has been appropriated by the state legislature to the Florida Aviation Grant Program.

In general, Florida law allows FDOT to fund any capital project on airport property as well as any services that lead to capital projects, such as planning and design services. The only off-airport projects allowed are the purchase of mitigation lands and avigation easements, noise mitigation, and access projects for intercontinental airports.

Airport capital equipment is eligible for funding if it is not too closely related to day-to-day operations. In general, operational costs such as maintenance services, equipment, and supplies are not eligible for aviation grants. The Florida Aviation Grant Program<sup>1</sup> typically includes:

- Airport Planning The purpose of airport planning is to study options for airport development and operations. The planning process lays the groundwork for future development on and around an airport. FDOT funds airport master planning, airport layout plans (ALPs), noise and environmental studies, economic impact analysis, services development, and airport promotion. Eligible projects include:
  - Airport master plans and layout plans
  - Environmental assessments
  - Wildlife hazard studies
- Airport Capital Improvement The purpose of capital improvement projects is to provide for capital facilities and equipment at airports. These capital improvements are generally specified in planning projects. Eligible projects include:
  - Runways/taxiways
  - o Terminals
  - Security projects
  - Safety projects
- Land Acquisition Land acquisition projects protect Florida's citizens from airport noise and protect airport clear zones and runway approach areas. Land acquisition minimizes potential hazards around the airport, provides the opportunity to have compatible land uses surrounding airport property, and protects the investments made in the airport. Eligible projects include:
  - Avigation easements
  - Land for runway protection zones (RPZs)
  - Mitigation land
- Airport Economic Development Airport economic development is meant to encourage Florida's general aviation (GA) and commercial service airports to become selfsupporting by promoting growth and development at the airport. Eligible projects include:
  - o Buildings for lease
  - Industrial park marketing programs

Projects that receive funding through the Florida Aviation Grant Program must be part of an FDOT-accepted airport master plan and/or an FDOT-approved ALP; be at an airport that is



<sup>&</sup>lt;sup>1</sup> Descriptions come from the Florida Aviation Project Handbook (www.fdot.gov/aviation/flpub.shtm)

publicly owned, open for use by the public, and included in the FASP; and be entered into the Joint Automated Capital Improvement Program (JACIP). Based on the projects that are in JACIP, FDOT District Aviation representatives develop a priority list for projects to be included in the FDOT Five-Year Work Program, which ultimately is used to fund projects.

# 9.2.2 Examination of FDOT ASO Grant Funding

FDOT operates the most robust state aviation funding program in the U.S., contributing upwards of \$350 million towards airport projects in some years. As such, the Aviation Grant Program also utilizes a very sophisticated funding process that allows funding to be equitably distributed between FDOT Districts and airports. The following sections provide some insight on this process.

#### 9.2.2.1 Current Funding Process

Paramount to understanding the FDOT ASO funding process is understanding the composition of FDOT. FDOT Central Office is responsible for developing policies and guidance for the transportation system. Florida is divided into seven FDOT Districts, each with its own aviation department. It is the Districts' responsibilities to work and coordinate with their airports to fund and complete projects. In general, projects must be identified in a master plan or airport layout plan and identified and programmed in the tentative work program. A more detailed overview of this process is provided in **Figure 9-1**. As shown in the figure, the FDOT ASO and District offices work directly with airports, the FAA, and local governments to ensure that funded projects support the FASP, FTP, and when relevant, the SIS.





#### Figure 9-1: FDOT Airport Planning Process

Source: Florida Aviation Project Handbook

#### 9.2.2.2 Florida Aviation Grant Program Process

The FDOT ASO grant funding process has been in place for many years and has been instrumental in the development and preservation of Florida's aviation system. As it is designed, the grant funding process allows funding decisions to be made at a more local level to better address the needs of the airports. The funding process also works well with the FDOT Work Program, which is the financial engine that powers the transportation system. Based on the current operation of the system, the Florida Aviation Grant Program is effective given the substantial improvements and orderly development of the airports. As such, no changes to the FDOT ASO grant funding process are recommended.

#### 9.2.2.3 Ability of Funding Processes to Address FASP Goals

The FASP was developed around a set of seven goals that form the basis of the Florida aviation system. As such, it is important for the FDOT funding process to support the FASP goals. Below is an overview of the FDOT grant program's ability to address each of the seven FASP goals.

- 1. **Provide safe, efficient, secure, and convenient service to Florida's citizens, businesses, and visitors.** The FDOT grant program is well suited to support this goal. Specific funding categories that support this goal include:
  - o Aviation Safety Projects
  - Aviation Security Projects



- Aviation Capacity Projects
- 2. Contribute to operational efficiency, economic growth, and competitiveness while remaining sensitive to Florida's natural environment. The FDOT grant program is well suited to support this goal. Specific funding categories that support this goal include:
  - Aviation Revenue/Operational Projects
  - Aviation Environmental Projects
- 3. Support and enhance the national position of leadership and prominence held by Florida's aviation industry. The FDOT grant program is well suited to support this goal. The very purpose of the grant program is to provide the funding to develop Florida's aviation system into one of the best in the country. All funding categories support this goal.
- 4. **Protect airspace and promote compatible land uses around airports.** The FDOT grant program is well suited to support this goal. Specific funding categories that support this goal include:
  - Aviation Preservation Projects
  - o Aviation Safety Projects
  - Aviation Environmental Projects
- 5. Foster technological innovation and support the implementation of new technologies. The FDOT grant program is well suited to support this goal. Specific funding categories that support this goal include:
  - o Aviation Preservation Projects
  - o Aviation Revenue/Operational Projects
  - Aviation Capacity Projects
- 6. **Promote support for aviation from business, government, and the public.** The FDOT grant program is well suited to support this goal. Specific funding categories that support this goal include:
  - o Aviation Preservation Projects
  - Aviation Revenue/Operational Projects
  - Aviation Security Projects
  - Aviation Capacity Projects
- 7. Foster Florida's reputation as a military- and aerospace-friendly state. The FDOT grant program is well suited to support this goal. Specific funding categories that support this goal include:
  - Aviation Preservation Projects
  - o Aviation Safety Projects
  - Aviation Security Projects
  - Aviation Capacity Projects

As identified, the FDOT grant program is very supportive of the FASP goals related to development projects at airports. Specific ties to supporting other more general goals is not evident, but by providing funding to support development, these other goals are supported by the grant program.



# 9.2.3 Analysis of FDOT Funding Needs and Programs

Understanding the projects for which funding is requested versus the projects that need to be funded is useful in evaluating the funding distribution and determining if the established priorities are actually being funded. Ultimately, project funding is based on consideration of airport priorities and the following state priorities<sup>2</sup>:

- Encourage the maximum allocation of federal funds
- State licensing standards per Florida Administrative Code (FAC) Chapter 14-60
- State and federal standards for safety
- State and federal standards for security
- Preserve existing airport infrastructure
- Increase the capacity of Florida's airports

F.S. 332.006(8) states that FDOT must encourage the maximum allocation of federal funds to airport projects. Though it is provided in Statute, this priority is not directly accounted for in the FDOT Work Program. It can be assumed that this state priority has applications to all project types that are funded through the Work Program. As such, funding distributed by the FDOT Work Program for aviation projects is categorized in one of six categories. **Table 9-1** provides a breakdown of the changes in funding, by project category, between the current and previous Five Year Work Programs.

| Type of Project (Related State Priorities) | FDOT FY 13-17   | FDOT FY 18-22    | Change from 13-17 to 18-22 |
|--|-----------------|------------------|----------------------------|
| Aviation Preservation Project (2 and 5)    | \$517,897,801   | \$550,093,998    | \$32,196,197               |
| Aviation Safety Project (2 and 3)          | \$216,381,805   | \$94,337,720     | (\$122,044,085)            |
| Aviation Revenue/Operational (5 and 6)     | \$215,848,644   | \$232,693,921    | \$16,845,277               |
| Aviation Security Project (4)              | \$42,591,022    | \$85,235,194     | \$42,644,172               |
| Aviation Capacity Project (6)              | \$798,605,275   | \$1,224,324,412  | \$425,719,137              |
| Aviation Environmental Project (All)       | \$4,229,490     | \$9,726,480      | \$5,496,990                |
| Total                                      | \$1,795,554,037 | \$2,196,411,725* | \$400,857,688              |

#### Table 9-1: FDOT Work Program Comparison

Source: Office of Work program and Budget (www2.dot.state.fl.us/fmsupportapps/workprogram/workprogram.aspx), accessed July 2017

Note: Values presented in Florida Department of Transportation (FDOT) Fiscal Year (FY) (July – June) \*Includes non-NPIAS airports, therefore funding is greater than shown for NPIAS airports

As shown, funding across almost all categories has increased over the past five years, with the notable exception of Aviation Safety Projects. It should be noted that projects in the Work Program are not always categorized correctly and projects can encompass other project categories. For example, there are significant funds allocated for Aviation Capacity Projects; it is



<sup>&</sup>lt;sup>2</sup> Provided in F.S. 332

likely that the projects also serve to enhance the operational safety of an airport, not just increase capacity.

# 9.2.4 FAA Airport Funding

In addition to funds from the Florida Aviation Grant Program, many airports in Florida are eligible to apply for and receive grants from the FAA. Through the Airport Improvement Program (AIP), the FAA provides funding to airports included in the NPIAS. The AIP is funded through the Airport and Airway Trust Fund, which consists of taxes and user fees collected from different sources, such as taxes on airline tickets, international passenger departure fees, and fuel taxes. AIP funding is authorized through legislation, with the latest reauthorization titled FAA Modernization and Reform Act of 2012 which authorized appropriations through fiscal year (FY) 2015. Since that time, continuing resolutions have been passed to appropriate funding which has impacted the stability of FAA funding and the timing of its release to airports.

In the latest NPIAS, 100 of Florida's airports were included and therefore eligible to apply for AIP funding. The NPIAS serves as the national system plan and is provided to Congress every two years to identify the amount of funding needed for airport development that is eligible for federal funding under the AIP over the next five years. As part of the NPIAS, a development estimate is provided for each airport that helps to "provide an adequate national airport system." The figures presented are the most realistic estimate of the funding that is needed to keep the national airport system running smoothly and efficiently. As previously stated, the FAA provides funding through the AIP and through the use of entitlements. Generally, primary airports<sup>3</sup> receive a base of \$1 million in entitlements, with additional funding based on the number of enplanements, while nonprimary airports<sup>4</sup> can receive up to \$150,000 per year. Though airports are eligible for this funding, it is not necessarily dedicated to them and may not be available for their use, based on the overall funding needs of the all NPIAS airports. Additionally, airports may also use 'discretionary funds' to assist in funding airport projects.

Over the past five years, the FAA has averaged a contribution of approximately \$157 million in funding to Florida's airports. In comparison to FDOT, the FAA cannot commit to a fixed amount of funding for individual airport projects into the future due to the limitations of the reauthorization and appropriations processes. While the FAA maintains a capital improvement planning process where projects are identified up to five years out, there is typically only a single year commitment of FAA funding to airports based on grant awards.



<sup>&</sup>lt;sup>3</sup> Primary airports have scheduled commercial service with more than 10,000 passenger boardings each year

<sup>&</sup>lt;sup>4</sup> Nonprimary airports include GA airports as well as commercial service airports with more than 2,500 but fewer than 10,000 passenger boardings each year

# 9.2.5 FAA-Identified Airport Funding Needs

As noted, the FAA does not have a set amount of funding that will be allocated in future years to each airport.<sup>5</sup> **Table 9-2** provides a summary of the development estimates for 2017 – 2021 for Florida's NPIAS airports as provided in the latest *NPIAS Report*.

| Airport Categories | FAA 2017 – 2021 Dev. Estimate | Percentage |
|--------------------|-------------------------------|------------|
| Large Hub          | \$1,147,678,721               | 38%        |
| Medium Hub         | \$268,662,845                 | 9%         |
| Small Hub          | \$334,314,772                 | 11%        |
| Non-Hub            | \$270,061,415                 | 9%         |
| National ASSET     | \$199,401,103                 | 7%         |
| Regional ASSET     | \$478,302,295                 | 16%        |
| Local ASSET        | \$254,630,548                 | 9%         |
| Basic ASSET        | \$37,572,203                  | 1%         |
| Unclassified ASSET | \$0                           | 0%         |
| Total              | \$2,990,623,902               |            |

 Table 9-2: Summary of NPIAS Report Development Estimates

Source: 2017 – 2021 National Plan of Integrated Airport Systems (NPIAS) Report

As shown, Florida's airports have over \$2.9 billion in identified funding needs over the next five years, with over \$1.1 billion (38 percent of the total) needed for the four large hub airports in Florida. Of note, the regional ASSET airports require close to \$500 million (16 percent of the total), indicating that there are substantial needs at those facilities. This is important, as some of these airports relieve commercial service airports and having less-than-ideal conditions could limit their ability to relieve congestion.

# 9.2.6 Comparison of FAA and FDOT-Identified Funding Needs

Table 9-3 provides a summary of the funding allocated through the FDOT Work Program for FDOTFiscal Years 2018 – 2022 by FAA airport category. As shown, Florida's NPIAS airports haveapproximately \$2.2 billion<sup>6</sup> identified for funding over the next five years in the FDOT WorkProgram. As shown, more than half (55 percent of the total) is identified for large hub airports.Similar to the data presented in Table 9-2, regional ASSET airports make up the next highest



<sup>&</sup>lt;sup>5</sup> The FAA provides millions of dollars each year to support the planning and development of Florida's airports; however, there are not specific funding amounts specified.

<sup>&</sup>lt;sup>6</sup> This funding figure includes all FAA, FDOT, and local funds that have been identified in the Five Year Work Program. Of this total, FDOT will contribute approximately \$785,000,000.

category at 12 percent, highlighting the commitment to funding the needs identified by the latest NPIAS Report.

| Airport Categories | FDOT FY 18-22 WP | Percentage |
|--------------------|------------------|------------|
| Large Hub          | \$1,204,936,504  | 55%        |
| Medium Hub         | \$151,645,956    | 7%         |
| Small Hub          | \$185,368,753    | 8%         |
| Non-Hub            | \$167,040,874    | 8%         |
| National ASSET     | \$79,877,924     | 4%         |
| Regional ASSET     | \$260,690,317    | 12%        |
| Local ASSET        | \$118,082,286    | 5%         |
| Basic ASSET        | \$15,932,886     | 1%         |
| Unclassified ASSET | \$150,000        | 0%         |
| Total              | \$2,183,725,500  |            |

#### Table 9-3: Summary of FDOT Work Program Funding

Source: Office of Work Program and Budget (www2.dot.state.fl.us/fmsupportapps/workprogram/workprogram.aspx), accessed July 2017; 2017 – 2021 National Plan of Integrated Airport Systems (NPIAS) Report Note: Funding identified in the Five Year Work Program includes federal funding for projects

**Table 9-4** provides a summary of the funding needs of Florida's airports by airport from both the FAA and the FDOT Work Program. As demonstrated in this analysis, Florida's airports greatly benefit from the support received from both the FAA and FDOT. Though not all airports are identified to have all of their funding needs met, a significant amount of funding is identified for airports across the state, with only a small number not having any funding identified in the Work Program. Though it is recommended that FDOT and the FAA continue to partner and fund aviation projects, additional funding could be utilized to help support the unfunded needs of Florida's aviation system.

| Table 9-4: | Detailed | Overview of | FDOT and | FAA | Fundina f | or Florida's | NPIAS | Airports |
|------------|----------|-------------|----------|-----|-----------|--------------|-------|----------|
|            |          |             |          |     |           |              |       |          |

| Associated City | Airport  | FAA<br>ID | 2017 – 2021<br>Dev. Estimate<br>(FAA) | FY 18-22 WP<br>(FDOT) |
|-----------------|--|-----------|---------------------------------------|-----------------------|
| Apalachicola    | Apalachicola Regional-<br>Cleve Randolph Field | AAF       | \$8,004,311                           | \$4,425,054           |
| Arcadia         | Arcadia Municipal Airport                      | X06       | \$6,662,334                           | \$996,099             |
| Avon Park       | Avon Park Executive Airport                    | AVO       | \$3,861,590                           | \$1,010,428           |
| Bartow          | Bartow Municipal Airport                       | BOW       | \$15,379,661                          | \$6,617,720           |
| Belle Glade     | Belle Glade State Municipal<br>Airport         | X10       | \$11,108,667                          | \$1,250,000           |



| Associated City  | Airport  | FAA<br>ID                                    | 2017 – 2021<br>Dev. Estimate<br>(FAA) | FY 18-22 WP<br>(FDOT) |
|------------------|--|--|---------------------------------------|-----------------------|
| Blountstown      | Calhoun County Airport                             | F95  | \$9,325,084                           | \$3,337,000           |
| Boca Raton       | Boca Raton Airport                                 | BCT  | \$13,341,666                          | \$6,760,000           |
| Bonifay          | Tri-County Airport                                 | 1 JO   | \$8,109,297                           | \$4,353,483           |
| Brooksville      | Brooksville-Tampa Bay<br>Regional Airport          | BKV  | \$3,550,000                           | \$3,090,000           |
| Cedar Key        | George T. Lewis Airport                            | CDK  | \$0                                   | \$1,500,000           |
| Clearwater       | Clearwater<br>Air Park                             | CLW  | \$1,600,000                           | \$2,075,000           |
| Clewiston        | Airglades Airport                                  | 215  | \$1,478,889                           | \$O                   |
| Crestview        | Bob Sikes Airport                                  | CEW  | \$14,752,458                          | \$23,403,859          |
| Cross City       | Cross City Airport                                 | CTY  | \$5,516,096                           | \$5,239,787           |
| Crystal River    | Crystal River-Captain Tom<br>Davis Field           | er-Captain Tom<br>vis Field CGC \$15,221,142 |                                       | \$6,102,465           |
| Daytona Beach    | Daytona Beach<br>International Airport             | DAB  | \$79,472,404                          | \$44,025,107          |
| DeFuniak Springs | DeFuniak Springs Airport                           | 54J  | \$19,026,120                          | \$6,532,810           |
| DeLand           | DeLand Municipal-Sidney H<br>Taylor Field          | DED  | \$13,369,444                          | \$7,195,617           |
| Destin           | Destin Executive Airport                           | DTS  | \$9,100,000                           | \$5,000,000           |
| Dunnellon        | Marion County Airport                              | X35  | \$3,907,366                           | \$6,886,953           |
| Everglades       | Everglades Airpark                                 | X01  | \$0                                   | \$150,000             |
| Fernandina Beach | Fernandina Beach Municipal<br>Airport              | FHB  | \$16,261,417                          | \$2,301,668           |
| Fort Lauderdale  | Fort Lauderdale Executive<br>Airport               | FXE  | \$58,452,270                          | \$16,255,500          |
| Fort Lauderdale  | Fort Lauderdale-Hollywood<br>International Airport | FLL  | \$380,566,343                         | \$155,000,640         |
| Fort Myers       | Page Field   | FMY  | \$28,891,430                          | \$21,049,366          |
| Fort Myers       | Southwest Florida<br>International Airport         | RSW  | \$51,537,830                          | \$41,698,490          |
| Fort Pierce      | Treasure Coast International<br>Airport            | FPR  | \$16,469,000                          | \$7,149,726           |
| Gainesville      | Gainesville Regional Airport                       | GNV  | \$36,450,836                          | \$24,470,625          |
| Hilliard         | Hilliard Airpark                                   | 01J  | \$1,242,369                           | \$1,186,000           |
| Hollywood        | North Perry Airport                                | HWO  | \$21,711,490                          | \$4,809,000           |
| Homestead        | Miami Homestead General<br>Aviation Airport        | X51  | \$7,131,844                           | \$1,691,600           |



| Associated City  | Airport  | FAA<br>ID       | 2017 – 2021<br>Dev. Estimate<br>(FAA) | FY 18-22 WP<br>(FDOT) |
|------------------|--|-----------------|---------------------------------------|-----------------------|
| Immokalee        | Immokalee Regional Airport                         | IMM             | \$15,983,684                          | \$10,350,000          |
| Inverness        | Inverness Airport                                  | INF             | \$10,730,857                          | \$4,537,576           |
| Jacksonville     | Cecil Airport                                      | VQQ             | \$22,090,044                          | \$8,500,000           |
| Jacksonville     | Herlong Recreational Airport                       | HEG             | \$9,790,445                           | \$562,500             |
| Jacksonville     | Jacksonville Executive<br>at Craig Airport         | CRG             | \$16,762,409                          | \$250,000             |
| Jacksonville     | Jacksonville International<br>Airport              | JAX             | \$110,195,097                         | \$63,237,708          |
| Key West         | Key West International<br>Airport                  | EYW             | \$50,133,982                          | \$26,618,574          |
| Keystone Heights | Keystone Airpark                                   | 42J             | \$6,485,976                           | \$2,150,000           |
| La Belle         | La Belle Municipal Airport                         | X14             | \$13,718,889                          | \$2,233,333           |
| Lake City        | Lake City Gateway Airport                          | LCQ             | \$19,082,198                          | \$10,361,666          |
| Lake Wales       | Lake Wales Municipal Airport                       | X07             | \$5,637,840                           | \$4,431,792           |
| Lakeland         | Lakeland Linder Regional<br>Airport                | LAL             | \$32,323,834                          | \$12,739,100          |
| Leesburg         | Leesburg International<br>Airport                  | LEE \$20,139,30 |                                       | \$11,916,738          |
| Live Oak         | Suwannee County Airport                            | 24J             | \$5,950,800                           | \$3,692,400           |
| Marathon         | The Florida Keys Marathon<br>International Airport | MTH             | \$9,803,333                           | \$7,241,360           |
| Marco Island     | Marco Island Airport                               | MKY             | \$11,659,000                          | \$7,825,000           |
| Marianna         | Marianna Municipal Airport                         | MAI             | \$9,801,513                           | \$4,078,747           |
| Melbourne        | Melbourne International<br>Airport                 | MLB             | \$49,476,278                          | \$30,650,000          |
| Merritt Island   | Merritt Island Airport                             | COI             | \$2,668,421                           | \$11,794,000          |
| Miami            | Dade-Collier Training and<br>Transition Airport    | TNT             | \$2,165,578                           | \$0                   |
| Miami            | Miami Seaplane Base                                | X44             | \$0                                   | \$0                   |
| Miami            | Miami Executive Airport                            | тмв             | \$4,261,400                           | \$4,581,800           |
| Miami            | Miami International Airport                        | MIA             | \$171,471,580                         | \$197,283,798         |
| Miami            | Miami-Opa Locka Executive<br>Airport               | OPF             | \$5,169,764                           | \$4,452,000           |
| Milton           | Peter Prince Field                                 | 2R4             | \$2,768,455                           | \$4,887,155           |
| Naples           | Naples Municipal Airport                           | APF             | \$23,479,167                          | \$6,425,000           |
| New Smyrna Beach | New Smyrna Beach<br>Municipal Airport              | EVB             | \$5,853,833                           | \$6,168,453           |



| Associated City              | Airport  | FAA<br>ID               | 2017 – 2021<br>Dev. Estimate<br>(FAA) | FY 18-22 WP<br>(FDOT) |
|------------------------------|--|-------------------------|---------------------------------------|-----------------------|
| Ocala                        | Ocala International-Jim<br>Taylor Field            | OCF                     | \$28,185,398                          | \$15,128,738          |
| Okeechobee                   | Okeechobee County Airport                          | OBE                     | \$15,292,000                          | \$0                   |
| Orlando                      | Executive Airport                                  | ORL                     | \$20,111,697                          | \$14,739,243          |
| Orlando                      | Kissimmee Gateway Airport                          | ISM                     | \$11,240,477                          | \$14,360,500          |
| Orlando                      | Orlando International Airport                      | мсо                     | \$118,642,432                         | \$153,507,026         |
| Orlando                      | Orlando Sanford<br>International Airport           | SFB                     | \$56,936,878                          | \$24,549,236          |
| Ormond Beach                 | Ormond Beach Municipal<br>Airport                  | OMN                     | \$18,165,699                          | \$10,293,820          |
| Pahokee                      | Palm Beach County Glades<br>Airport                | РНК                     | \$7,000,000                           | \$5,000,000           |
| Palatka                      | Palatka Municipal-Lt Kay<br>Larkin Field           | 28J                     | \$21,970,359                          | \$3,737,500           |
| Palm Coast                   | Flagler Executive Airport                          | FIN                     | \$18,887,643                          | \$11,536,250          |
| Panama City                  | Northwest Florida Beaches<br>International Airport | ECP                     | \$71,740,651                          | \$27,843,101          |
| Pensacola                    | Pensacola International<br>Airport                 | rnational PNS \$65,990, |                                       | \$57,871,774          |
| Perry                        | Perry-Foley Airport                                | 40J                     | \$10,723,683                          | \$3,388,892           |
| Plant City                   | Plant City Airport                                 | РСМ                     | \$8,455,700                           | \$9,367,300           |
| Pompano Beach                | Pompano Beach Airpark                              | PMP                     | \$7,042,000                           | \$4,023,400           |
| Punta Gorda                  | Punta Gorda Airport                                | PGD                     | \$8,834,800                           | \$5,440,000           |
| Quincy                       | Quincy Municipal Airport                           | 2J9                     | \$9,109,279                           | \$3,150,000           |
| Sarasota/<br>Bradenton       | Sarasota Bradenton<br>International Airport        | SRQ                     | \$42,959,143                          | \$20,814,568          |
| Sebastian                    | Sebastian Municipal Airport                        | X26                     | \$5,513,889                           | \$3,600,000           |
| Sebring                      | Sebring Regional Airport                           | SEF                     | \$23,444,770                          | \$1,827,150           |
| St Augustine                 | Northeast Florida Regional<br>Airport              | SGJ                     | \$14,409,269                          | \$21,029,350          |
| St Petersburg                | Albert Whitted Airport                             | SPG                     | \$1,040,000                           | \$9,120,000           |
| St Petersburg-<br>Clearwater | St Pete-Clearwater<br>International Airport        | PIE                     | \$46,553,311                          | \$27,671,500          |
| Stuart                       | Witham Field                                       | SUA                     | \$9,029,896                           | \$6,525,555           |
| Tallahassee                  | Tallahassee International<br>Airport               | TLH                     | \$57,608,475                          | \$30,385,792          |
| Tampa                        | Peter O. Knight Airport                            | TPF                     | \$11,189,459                          | \$3,362,900           |



| Associated City                           | Airport   | FAA<br>ID | 2017 – 2021<br>Dev. Estimate<br>(FAA) | FY 18-22 WP<br>(FDOT) |
|---|---|-----------|---------------------------------------|-----------------------|
| Tampa                                     | Tampa Executive Airport                             | VDF       | \$15,920,667                          | \$10,494,238          |
| Tampa                                     | Tampa International Airport                         | TPA       | \$476,998,366                         | \$699,145,040         |
| Titusville                                | Arthur Dunn Air Park                                | X21       | \$4,583,333                           | \$4,485,000           |
| Titusville                                | Space Coast Regional<br>Airport                     | TIX       | \$29,672,448                          | \$7,327,322           |
| Umatilla                                  | Umatilla Municipal Airport                          | X23       | \$2,794,444                           | \$3,610,000           |
| Valkaria                                  | Valkaria Airport                                    | X59       | \$8,481,055                           | \$6,260,429           |
| Valparaiso/<br>Destin-<br>Ft Walton Beach | Eglin AFB/<br>Destin-Ft Walton Beach<br>Airport     | VPS       | \$23,809,353                          | \$11,040,000          |
| Venice                                    | Venice Municipal Airport                            | VNC       | \$16,140,444                          | \$2,075,000           |
| Vero Beach                                | Vero Beach Regional Airport                         | VRB       | \$16,982,378                          | \$10,000,000          |
| Wauchula                                  | Wauchula Municipal Airport                          | CHN       | \$12,014,685                          | \$500,000             |
| West Palm Beach                           | North Palm Beach County<br>General Aviation Airport | F45       | \$20,454,376                          | \$18,575,000          |
| West Palm Beach                           | Palm Beach County Park<br>Airport                   | LNA       | \$29,062,500                          | \$0                   |
| West Palm Beach                           | Palm Beach International<br>Airport                 | PBI       | \$106,929,918                         | \$46,709,758          |
| Williston                                 | Williston Municipal Airport                         | X60       | \$5,188,455                           | \$2,736,754           |
| Winter Haven                              | Winter Haven's Gilbert Field                        | GIF       | \$5,775,000                           | \$0                   |
| Zephyrhills                               | Zephyrhills Municipal Airport                       | ZPH       | \$6,633,667                           | \$9,960,667           |
|   | Total   |           | \$2,990,623,902                       | \$2,183,725,500       |

Source: Office of Work Program and Budget (www2.dot.state.fl.us/fmsupportapps/workprogram/workprogram.aspx), accessed July 2017; 2017 – 2021 National Plan of Integrated Airport Systems (NPIAS) Report

#### 9.2.7 Findings

The evaluation of identified needs and funding from the FAA and FDOT shows that there is a gap in the identified funding between what FDOT has programmed for airport projects and what the FAA's latest NPIAS shows as development needs. This gap is approximately \$800 million; however, it is not known at this time how much FAA funding will be provided for airports during this timeframe.

# 9.3 Application of State Strategic Goal Assessment Tool (SSGAT)

The SSGAT was developed as part of the FASP 2025 Update as a means to evaluate projects that are entered in the JACIP. The SSGAT uses a weighted matrix to assess how well each airport



project entered in the JACIP addresses the goals established by the FASP. The SSGAT formula was updated in Phase I of the FASP 2035 Update to reflect the updated system goals.

To examine the relationship between the state's planned investment in aviation projects (Work Program) and attainment of the aviation system goals provided in this FASP 2035 Update, a comparison of projects in the JACIP to the current Work Program and the funding associated with each project type was conducted. The results of this analysis demonstrate how much funding has been allocated to achieve the goals of the FASP 2035 Update, assuming the SSGAT's methodology is considered appropriate.

For this task, the most recent SSGAT scores for projects were downloaded from JACIP. Funding requests and project types were also downloaded from JACIP and joined to the SSGAT scores. These results were compared to the projects that have been adopted in the current Work Program. This section includes the results of these analyses.

# 9.3.1 Overview of the SSGAT

The SSGAT was designed to help evaluate different project types based on their FAA Project Categories and ability to support the goals of the FASP. Within the SSGAT, each FAA Project Category and FASP goal was assigned a "weight" that prioritizes projects that best support these goals. FAA Project Categories, FASP goals, and the weight assigned to each are shown in **Table 9-5** and **Table 9-6**.

| FAA Project Categories      | Weight |
|-----------------------------|--------|
| Capacity                    | 15     |
| Environmental               | 10     |
| Instrument Approach Aid     | 5      |
| Other                       | 5      |
| Planning                    | 5      |
| Reconstruction              | 10     |
| Safety                      | 15     |
| Security                    | 10     |
| Statutory Emphasis Programs | 10     |
| Standards                   | 15     |

#### Table 9-5: FAA Project Categories and Weights

Source: State Strategic Goal Assessment Tool (SSGAT) Spreadsheet, October 2015



#### Table 9-6: FASP 2035 Goal Categories and Weights

|    | FASP 2035 Goal  | Weight |
|----|---|--------|
| 1. | Provide efficient, safe, and convenient service to Florida's citizens, businesses, and visitors.  | 25     |
| 2. | Contribute to operational efficiency, economic growth, and competitiveness while remaining sensitive to Florida's natural environment and exhibiting social responsibility. | 10     |
| 3. | Support and enhance the position of leadership and prominence held by Florida's aviation industry.  | 10     |
| 4. | Protect airspace and promote compatible land uses around public airports.   | 20     |
| 5. | Foster technological innovation and support implementation of new technologies.   | 10     |
| 6. | Promote support for aviation from business, government, and the public.   | 20     |
| 7. | Foster Florida's reputation as a military- and aerospace-friendly state.  | 5      |

Source: State Strategic Goal Assessment Tool (SSGAT) Spreadsheet Note: These goals include updates made after the last SSGAT Update and are not shown in the actual SSGAT.

FAA Project Category weights are static while FASP goal values are adjusted based on the ability of a specific project to accomplish the goals of the FASP. Projects are evaluated for their relationship to the FASP goal categories with options of selecting high, medium, or low relationships that have associated weights of 1.2, 1.0, and 0.8, respectively. If a project has no correlation, it receives a weight of zero for that FASP goal category. These weights are then multiplied by the value for the FASP goal to derive the total score relative to the relationship of the project to the FASP goal categories. That FASP goal score is then combined with the FAA Project Category score. An example of how projects are scored in SSGAT is shown in **Figure 9-2**.



#### Figure 9-2: SSGAT Spreadsheet

|                           |              |   | FASP Goals  |  |  |  |   |   |                                   |
|---------------------------|--------------|---|---|--|--|--|---|---|-----------------------------------|
|                           | FAA Category | Foster technological innovation and<br>support implementation of new<br>technologies. | Contribute to economic growth and<br>competitiveness while remaining sensitive<br>to Florida's natural environment. | Provide efficient, safe, secure, and<br>convenient service to Florida's citizens,<br>businesses, and visitors. | Support and enhance the position of leadership and prominence held by Florida's aviation industry. | Protect airspace and promote compatible<br>land uses around public airports. | Promote support for aviation from business, government, and the public. | Foster Florida's reputation as a military-<br>friendly state. | - State Strategic Goal Assessment |
|                           | Weights      | 10  | 10  | 25   | 10   | 20   | 20  | 5   |                                   |
| Project/Goal Relationship |              |   | 1   | 1.2  | 0.8  |  | 0.8   |   | •                                 |
| Project Description       | 10           | • 0 •   | 10  | <b>-</b> 30 -  | - 8 -  | F 0 4  | F 16 🖣  | 0   | 74                                |

#### Source: Florida Aviation System Plan (FASP) Phase I Analysis, CDM Smith, May 2016

As shown in Figure 9-2, this sample project received an FAA Project Category value of 10 and was identified as having the following relationships to FASP goals:

- Low relationship to the FASP goals of "Support and enhance the position of leadership and prominence held by Florida's aviation industry" and "Promote support for aviation from business, government, and the public"
- Medium relationship to the FASP goal "Contribute to economic growth and competitiveness while remaining sensitive to Florida's natural environment"
- High relationship to the FASP goal "Provide efficient, safe, secure, and convenient service to Florida's citizens, businesses, and visitors"

Based on these values, the above project received an SSGAT score of 74. To provide context, the minimum score possible is five and the maximum score possible is 135, indicating that the example project in Figure 9-2 is helping to meet some of the FASP goals and could be used in comparing the results to other projects and other needs identified by the FDOT District personnel.

# 9.3.2 FDOT Five Year Work Program

Analysis was conducted to identify if the projects that are programmed for funding in FDOT's current Work Program are those that are supporting the goals of the FASP (such as the example project in Figure 9-2), as identified by the SSGAT. For this analysis, Work Program data was downloaded from FDOT for FY 17-22. It is important to note that six years of data are actually analyzed in this section, as a special report was issued for the Work Plan that uses this six-year timeframe instead of the traditional five-year outlook. Work Program data was downloaded on March 16, 2017 for all projects coded as aviation. Within the Work Program, individual projects are coded by Airport Project ID (UPIN) and Item numbers. Both of these reference numbers are linked to individual projects in the JACIP. When analyzing the Work Program data, it was



determined that the Item number was better suited to link individual projects and their respective funds to the JACIP because many of the UPINs were improperly coded (or not coded at all), and thus some JACIP projects could not be identified or linked to the same projects that exist in the Work Program. Using the UPIN, 619 unique projects were identified in the Work Program, while using the Item number 845 unique projects were identified. Dollar amounts for projects in the Work Program were summed across all five years and then compared to the funding request in the JACIP, as explained below.

# 9.3.3 JACIP

Airports can input projects into the JACIP at any time and there is currently no requirement to remove old or already completed projects. As such, projects in the JACIP range in years from 2008 to 2035. JACIP data was downloaded on March 31, 2017 and was provided by Panther International. Within the JACIP, projects are coded by UPIN, FDOT Project ID, and FDOT segment numbers. The Project ID and segment number combine to provide a link to the item number of projects that are funded in the Five Year Work Program. In total, 4,512 projects were logged in the JACIP as of March 31; of those, 1,952 had Project ID and segment numbers that allowed them to be compared to projects included in the latest Five Year Work Program.

# 9.3.4 Methodology

Because there is no uniform report that displays both the information in the JACIP and that in the FDOT Five Year Work Program, significant coordination of the data was required to compile the two sources for analysis. As previously described, a single data table was developed that combined the JACIP and Work Program spreadsheets, joining them by UPIN and Item number (Work Program) and DOT Project ID and segment numbers (JACIP).

#### 9.3.5 Results

Within the JACIP, projects are coded by one of 16 project types, including:

- Apron
- Building
- Buildings
- Equipment
- Finance
- Ground Transportation
- Helipad
- Homes

- Land
- New Airport
- Other
- Planning
- Runway
- Seaplane Base
- Taxiway
- Terminal

For the identified categories, analysis was completed to understand the amount of funding a specific project type requested, received, and the SSGAT score of those projects. Of the 16 identified project types, only the eight that are highlighted are discussed in following sections. **Figure 9-3** provides an overall comparison of JACIP and Work Program funding for each of the above project types.





Figure 9-3: Comparison of JACIP and Work Program Funding (FY 17-22)

Source: Florida Aviation Database (FAD); Florida Department of Transportation (FDOT) Work Program Data, accessed March 2017

#### 9.3.5.1 Apron

Apron areas at airports are the locations where aircraft are fueled, parked, and boarded. Having adequate apron space allows airports to have safe and efficient movement of aircraft, increasing the overall operational capability of an airport. In total, \$314,831,942 was requested from the state (in JACIP) for apron projects, with \$153,590,670 programmed for funding in the current Work Program. As shown in **Figure 9-4** and **Table 9-7**, different types of apron projects received SSGAT scores between 69 and 86. Of all the projects requested in JACIP, the ones that were least included in the Work Program were those identified as related to standards. Given the fact that there is not a large discrepancy between the lowest and highest SSGAT score, and the fact that a large majority of the highest SSGAT score projects were funded, it appears there is a positive correlation between the SSGAT scores contained in the JACIP and the projects that are programmed in the current Work Program.





#### Figure 9-4: Apron Projects in the JACIP and FDOT Work Program (FY 17-22)

Source: Florida Aviation Database (FAD); Florida Department of Transportation (FDOT) Work Program Data, accessed March 2017

|                |                                    | •  | -   |   |
|----------------|------------------------------------|--|---|---|
| SSGAT<br>Score | Project Type                       | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs. Requested |
|                | Rehabilitate Apron                 | 70,652,323                                       | 41,577,689                                    |   |
| 69             | 60 Total                           | 70,652,323                                       | 41,577,689                                    | 58.8%                                     |
| 80             | Construct Apron (Standards)        | 49,728,198                                       | 21,675,000                                    |   |
|                | Expand Apron (Standards)           | 4,219,985  | 0   |   |
|                | Strengthen Apron (Standards)       | 241,611  | 0   |   |
|                | 80 Total                           | 54,189,794                                       | 21,675,000                                    | 40.0%                                     |
|                | Construct Apron (Capacity)         | 150,111,667                                      | 29,711,731                                    |   |
| 86             | Expand Apron (Capacity)            | 39,507,408                                       | 60,626,250                                    |   |
|                | Install Apron Lighting (Standards) | 370,750  | 0   |   |
|                | 86 Total                           | 189,989,825                                      | 90,337,981                                    | 47.5%                                     |
|                | APRON Total                        | 314.831.942                                      | 153,590,670                                   | 48.8%                                     |

#### Table 9-7: Apron Projects in the JACIP and FDOT Work Program (FY 17-22)

Source: Florida Aviation Database (FAD); Florida Department of Transportation (FDOT) Work Program Data, accessed March 2017



#### 9.3.5.2 Building – ARFF and Snow Removal

There are numerous types of buildings at airports; however, for this category, only two types of buildings are included: Aircraft Rescue and Fire Fighting (ARFF) and snow removal equipment buildings. In total, \$753,283,481 was requested from the state for building projects, with \$171,174,144 programmed in the current Work Program. As shown in **Figure 9-5** and **Table 9-8**, different types of building projects received SSGAT scores between 45 and 92. The most common project request was for ARFF buildings. As shown, the projects that are funded in the Work Program received relatively low SSGAT scores, and overall, only a small percentage of projects are funded in this category.



Figure 9-5: Building Projects in the JACIP and FDOT Work Program (FY 17-22)

Source: Florida Aviation Database (FAD); Florida Department of Transportation (FDOT) Work Program Data, accessed March 2017

#### Table 9-8: Building Projects in the JACIP and FDOT Work Program (FY 17-22)

| SSGAT<br>Score | Project Type     | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs. Requested |
|----------------|------------------|--|---|---|
| 45             | Expand Building  | 101,886,463                                      | 35,406,700                                    |   |
|                | Improve Building | 31,324,019                                       | 18,030,800                                    |   |



| SSGAT<br>Score | Project Type  | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs. Requested |
|----------------|---|--|---|---|
|                | Modify Building   | 9,277,650  | 4,015,806                                     |   |
|                | Rehabilitate Building   | 56,009,883                                       | 14,077,868                                    |   |
|                | 45 Total  | 198,498,015                                      | 71,531,174                                    | 36.0%                                     |
|                | Construct Building  | 532,932,013                                      | 92,986,579                                    |   |
| 50             | 50 Total  | 532,932,013                                      | 92,986,579                                    | 1 <b>7.4</b> %                            |
| 80             | Rehabilitate Aircraft Rescue & Fire<br>Fighting Building [Pt. 139 only] | 110,000  | 0   |   |
|                | 80 Total  | 110,000  | 0   | 0.0%                                      |
| 85             | Construct Snow Removal Equipment<br>Building                            | 771,000  | 0   |   |
|                | 85 Total  | 771,000  | 0   | 0.0%                                      |
| 86             | Construct Aircraft Rescue & Fire<br>Fighting Building [Pt. 139 only]    | 19,947,453                                       | 6,656,391                                     |   |
|                | 86 Total  | 19,947,453                                       | 6,656,391                                     | 33.4%                                     |
| 92             | Improve Aircraft Rescue & Fire<br>Fighting Building [Pt. 139 only]      | 1,025,000  | 0   |   |
|                | 92 Total  | 1,025,000  | 0   | 0.0%                                      |
|                | BUILDING Total  | 753,283,481                                      | 171,174,144                                   | 22.7%                                     |

#### 9.3.5.3 Buildings – Air Traffic Control and Hangars

In addition to ARFF and snow removal equipment buildings, other buildings that are classified within the SSGAT, JACIP, and the Work Program include air traffic control facilities and hangars. In total, \$262,874,464 was requested from the state for these types of building projects, with \$82,204,794 being funded in the current Work Program. As shown in **Figure 9-6** and **Table 9-9**, different types of air traffic control and hangar building projects received SSGAT scores of either 80 or 86.





Figure 9-6: Buildings Projects in the JACIP and FDOT Work Program (FY 17-22)

|  | Table 9 | -9: Buildings | <b>Projects in the</b> | JACIP and | FDOT Work | Program (I | FY 17 | 7-22) |
|--|---------|---------------|------------------------|-----------|-----------|------------|-------|-------|
|--|---------|---------------|------------------------|-----------|-----------|------------|-------|-------|

| SSGAT<br>Score | Project Type  | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs.<br>Requested |
|----------------|---|--|---|--|
|                | Construct/Expand/Improve/Modify/<br>Relocate Air Traffic Control Facilities | 49,909,567                                       | 37,918,322                                    |  |
| 80             | Construct/Expand/Improve/Modify/<br>Relocate T-Hangars                      | 3,600,000  | 0   |  |
|                | 80 Total  | 53,509,567                                       | 37,918,322                                    | 70.9%  |
| 86             | Construct/Expand/Improve/Modify/<br>Relocate T-Hangars                      | 209,364,897                                      | 44,286,472                                    |  |
|                | 86 Total  | 209,364,897                                      | 44,286,472                                    | 21.2%  |
|                | BUILDINGS Total   | 262,874,464                                      | 82,204,794                                    | 31.3%  |

Source: Florida Aviation Database (FAD); Florida Department of Transportation (FDOT) Work Program Data, accessed March 2017

#### 9.3.5.4 Ground Transportation

Ground transportation projects include airport access roads, passenger rail connections, automated people movers, as well as internal airport roads. These projects are important to



airports because they allow for safe and efficient movement of people to and from the airport as well as on airport property. In total, \$747,873,771 was requested from the state for ground transportation projects, with \$353,667,971 programmed in the current Work Program. This project category also had project types where the funding that was received was greater than the funding that was requested. This could be due to project scope changes from the time it was put into JACIP to when it was programmed in the Work Program. As shown in **Figure 9-7** and **Table 9-10**, different types of ground transportation projects received SSGAT scores between 39 and 85. Based on the analysis, ground transportation projects are well supported by the funding in the Work Program.



Figure 9-7: Ground Transportation Projects in the JACIP and FDOT Work Program (FY 17-22)

Source: Florida Aviation Database (FAD); Florida Department of Transportation (FDOT) Work Program Data, accessed March 2017

# Table 9-10: Ground Transportation Projects in the JACIP and FDOT Work Program (FY 17-22)

| SSGAT<br>Score | Project Type                | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percent<br>Programmed vs.<br>Requested |
|----------------|-----------------------------|--|---|--|
| 20             | Improve Access Rail (Other) | 500,000  | 1,000,000                                     |  |
| 39             | Modify Access Rail (Other)  | 1,200,000  | 0   |  |



| SSGAT<br>Score | Project Type                                     | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percent<br>Programmed vs.<br>Requested |
|----------------|--|--|---|--|
|                | Modify Access Road (Other)                       | 18,444,300                                       | 22,672,000                                    |  |
|                | Rehabilitate Access Rail (Other)                 | 1,232,000  | 100,000                                       |  |
|                | Rehabilitate Access Road (Other)                 | 3,273,437  | 0   |  |
|                | 39 Total   | 24,649,737                                       | 23,772,000                                    | 96.4%                                  |
|                | Expand Terminal People Mover<br>(Other)          | 575,000  | 0   |  |
| 41             | Rehabilitate Terminal People<br>Mover (Other)    | 588,024  | 1,598,450                                     |  |
|                | 41 Total   | 1,163,024  | 1,598,450                                     | 137.4%                                 |
|                | Construct Access Rail (Other)                    | 300,000  | 600,000                                       |  |
| 51             | Construct Service Road (Other)                   | 14,146,076                                       | 5,280,195                                     |  |
|                | Rehabilitate Terminal People<br>Mover (Capacity) | 5,400,000  | 0   |  |
|                | 51 Total   | 19,846,076                                       | 5,880,195                                     | 29.6%                                  |
|                | Expand Service Road (Other)                      | 310,000  | 0   |  |
| 53             | Improve Service Road (Other)                     | 1,250,000  | 2,400,000                                     |  |
|                | Rehabilitate Service Road (Other)                | 1,860,640  | 212,800                                       |  |
|                | 53 Total   | 3,420,640  | 2,612,800                                     | 76.4%                                  |
|                | Construct Access Road (Other)                    | 85,733,326                                       | 24,137,654                                    |  |
| 57             | Construct Terminal People Mover<br>(Other)       | 726,900  | 0   |  |
|                | 57 Total   | 86,460,226                                       | 24,137,654                                    | 27.9%                                  |
|                | Expand Access Road (Other)                       | 20,307,028                                       | 308,873                                       |  |
| 63             | Improve Access Road (Other)                      | 12,169,766                                       | 4,010,000                                     |  |
|                | 63 Total   | 32,476,794                                       | 4,318,873                                     | 13.3%                                  |
| 70             | Modify Access Road (Capacity)                    | 67,185,658                                       | 85,000,000                                    |  |
|                | 79 Total   | 67,185,658                                       | 85,000,000                                    | 126.5%                                 |
|                | Construct Access Road<br>(Capacity)              | 164,136,340                                      | 6,730,138                                     |  |
| 85             | Construct Terminal People Mover<br>(Capacity)    | 319,824,635                                      | 190,000,000                                   |  |
|                | Expand Access Road (Capacity)                    | 16,578,141                                       | 5,747,861                                     |  |
|                | Improve Access Road (Capacity)                   | 12,132,500                                       | 3,870,000                                     |  |



| SSGAT<br>Score | Project Type                           | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percent<br>Programmed vs.<br>Requested |
|----------------|--|--|---|--|
|                | Rehabilitate Access Road<br>(Capacity) | 0  | 0   |  |
|                | 85 Total                               | 512,671,616                                      | 206,347,999                                   | 40.2%                                  |
|                | GROUND TRANSPORTATION Total            | 747,873,771                                      | 353,667,971                                   | 47.3%                                  |

#### 9.3.5.5 Other Projects

Projects in this category range from environmental mitigation projects to fuel farms and drainage projects. In total, \$326,835,907 was requested from the state for "other" projects, with \$173,355,267 programmed in the current Work Program. As shown in **Figure 9-8** and **Table 9-11**, different types of "other" projects received SSGAT scores between 27 and 99. Based on the analysis, the project with the highest SSGAT scores were not programmed in the Work Program and most project categories received little to no funding, indicating that projects in this category are not well supported by FDOT.



#### Figure 9-8: Other Projects in the JACIP and FDOT Work Program (FY 17-22)

Source: Florida Aviation Database (FAD); Florida Department of Transportation (FDOT) Work Program Data, accessed March 2017



| SSGAT<br>Score | Project Type  | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs.<br>Requested |
|----------------|---|--|---|--|
| 27             | Environmental Mitigation  | 7,549,225  | 560,920                                       |  |
|                | 27 Total  | 7,549,225  | 560,920                                       | 7.4%   |
|                | Noise Mitigation Measures   | 1,644,250  | 800,000                                       |  |
| 33             | 33 Total  | 1,644,250  | 800,000                                       | 48.7%  |
| 34             | Construct/Expand/Improve/Modify/<br>Relocate Aircraft Wash Rack             | 952,800  | 625,000                                       |  |
|                | 34 Total  | 952,800  | 625,000                                       | 65.6%  |
|                | Construct Fuel Farm [MAP]   | 1,034,637  | 0   |  |
| 39             | Improve Utilities [MAP]   | 2,000,000  | 0   |  |
|                | 39 Total  | 3,034,637  | 0   | 0.0%   |
|                | Improve Airport Miscellaneous<br>Improvements                               | 146,143,598                                      | 102,861,760                                   |  |
| 44             | Light Obstructions [not hazards]  | 15,175   | 0   |  |
|                | 44 Total  | 146,158,773                                      | 102,861,760                                   | 70.4%  |
|                | Install Guidance Signs [Non-Part 139<br>Com Svc]                            | 4,318,600  | 0   |  |
|                | Install Runways Incursion Caution Bars<br>[Non-Part 139 Com Svc]            | 550,943  | 0   |  |
| 45             | Remove Obstructions to permit WAAS approach                                 | 0  | 0   |  |
|                | Runway Incursion Markings   | 71,346   | 0   |  |
|                | 45 Total  | 4,940,889  | 0   | 0.0%   |
| 47             | Construct Parking Lot [Non-<br>revenue/Non-hub and MAP only]                | 16,932,574                                       | 8,895,000                                     |  |
|                | Rehabilitate Parking Lot [Non-<br>revenue/Non-hub and MAP only]             | 8,688,031  | 11,686,306                                    |  |
|                | 47 Total  | 25,620,605                                       | 20,581,306                                    | 80.3%  |
|                | Install Guidance Signs [Required by Part 139 only]                          | 1,704,253  | 0   |  |
| 50             | Install Miscellaneous NAVAIDS<br>(Segmented Circle, beacon, etc Not<br>ALS) | 3,634,700  | 658,000                                       |  |

# Table 9-11: Other Projects in the JACIP and FDOT Work Program (FY 17-22)



| SSGAT<br>Score | Project Type  | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs.<br>Requested |
|----------------|---|--|---|--|
|                | Rehabilitate Airport Beacons -<br>[Required by Part 139 only]       | 1 <i>5,</i> 000                                  | 0   |  |
|                | Remove Obstructions [hazard only, i.e. approaches] (all airports)   | 400,000  | 0   |  |
|                | Remove Obstructions [not hazards]                                   | 1,677,400  | 0   |  |
|                | 50 Total  | 7,431,353  | 658,000                                       | <b>8.9</b> %                                 |
| 50             | Improve Airport Drainage  | 34,928,873                                       | 15,745,074                                    |  |
| 52             | 52 Total  | 34,928,873                                       | 15,745,074                                    | <b>45</b> .1%                                |
| 54             | Improve Airport Erosion Control                                     | 696,600  | 870,800                                       |  |
| 54             | 54 Total  | 696,600  | 870,800                                       | 125.0%                                       |
|                | Acquire Mobile Aircraft Rescue & Fire<br>Fighting Training Facility | 700,000  | 0   |  |
|                | Construct Aircraft Rescue & Fire<br>Fighting Training Facility      | 2,700,000  | 0   |  |
| 56             | Remove Obstructions [hazard only, i.e. approaches] (all airports)   | 11,986,446                                       | 17,351,517                                    |  |
|                | Runway Incursion Markings (Safety)                                  | 1,955,150  | 0   |  |
|                | 56 Total  | 17,341,596                                       | 17,351,517                                    | 100.1%                                       |
|                | Construct Utilities   | 38,853,335                                       | 800,000                                       |  |
|                | Improve Utilities   | 7,975,254  | 250,000                                       |  |
| 58             | Repair Utilities  | 1,238,996  | 4,108,996                                     |  |
|                | 58 Total  | 48,067,585                                       | 5,158,996                                     | 10.7%  |
|                | Construct Fuel Farm   | 9,737,459  | 3,088,770                                     |  |
| 64             | Improve Fuel Farm   | 8,456,327  | 2,226,386                                     |  |
|                | 64 Total  | 18,193,786                                       | 5,315,156                                     | 29.2%  |
| 84             | Install Airfield Guidance Signs [Not required by Pt. 139]           | 6,495,907  | 2,826,738                                     |  |
|                | 68 Total  | 6,495,907  | 2,826,738                                     | 43.5%  |
| 70             | Repair Fuel Farm  | 521,380  | 0   |  |
| 72             | 72 Total  | 521,380  | 0   | 0.0%   |



| SSGAT<br>Score | Project Type   | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs.<br>Requested |
|----------------|--|--|---|--|
| 75             | Install Miscellaneous NAVAIDS<br>(Segmented Circle, beacon, etc. – Not<br>ALS) [com service] | 2,047,000  | 0   |  |
|                | 75 Total   | 2,047,000  | 0   | 0.0%   |
| 80             | Install Airport Beacons – [Required by<br>Part 139 only]                                     | 120,000  | 0   |  |
|                | 80 Total   | 120,000  | 0   | 0.0%   |
| 85             | Construct Deicing Containment Facility<br>(Environmental)                                    | 50,000   | 0   |  |
|                | 85 Total   | 50,000   | 0   | 0.0%   |
|                | Install Noise Monitoring System  | 355,000  | 0   |  |
| 91             | 91 Total   | 355,000  | 0   | 0.0%   |
| 92             | Improve Airport Miscellaneous<br>Improvements  | 500,000  | 0   |  |
|                | 92 Total   | 500,000  | 0   | 0.0%   |
| 99             | Light Obstructions [hazard only, i.e.<br>approaches] (all airports)                          | 185,648  | 0   |  |
|                | 99 Total   | 185,648  | 0   | 0.0%   |
|                | OTHER Total  | 326,835,907                                      | 173,355,267                                   | 53.0%  |

#### 9.3.5.6 Runway

Runway projects include any projects that may improve the operational ability of a runway, including lighting, updated approaches, and extensions. In total, \$521,825,024 was requested from the state for runway projects, with \$313,534,132 programmed in the current Work Program. This project category also had project types where the funding that was received was greater than the funding that was requested. This could be due to project scope changes from the time it was put into JACIP to when it was programmed in the Work Program. As shown in **Figure 9-9** and **Table 9-12**, different types of runway projects received SSGAT scores between 73 and 80. As shown, funding requests in JACIP were well matched in the Work Program, indicating that projects in this category are well supported by FDOT.





Figure 9-9: Runway Projects in the JACIP and FDOT Work Program (FY 17-22)

| SSGAT<br>Score | Project Type  | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs.<br>Requested |
|----------------|---|--|---|--|
| 73             | Construct Runway (environmental mitigation)   | 6,250  | 125,000                                       |  |
|                | 73 Total  | 6,250  | 125,000                                       | 2000.0%                                      |
|                | Install Runway Lighting (HIRL, MIRL)<br>[Non-Part 139 Commercial Service]                 | 763,833  | 566,666                                       |  |
| 75             | Install Runway Vertical/Visual<br>Guidance System<br>(PAPI/VASI/REIL/ALS/etc.) (Com. Svc) | 77,460   | 0   |  |
|                | Rehabilitate Runway   | 175,410,943                                      | 132,703,085                                   |  |
|                | Rehabilitate Runway Lighting  | 11,217,015                                       | 10,041,315                                    |  |
|                | 75 Total  | 187,469,251                                      | 143,311,066                                   | 76.4%  |
| 80             | Construct Runway (Capacity)   | 104,278,985                                      | 20,353,754                                    |  |



| SSGAT<br>Score | Project Type   | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs.<br>Requested |
|----------------|--|--|---|--|
|                | Construct Runway (Standards)   | 30,670,652                                       | 13,105,610                                    |  |
|                | Construct Runway Safety Area<br>[Nonprimary Airports]                          | 2,080,284  | 550,000                                       |  |
|                | Construct Runway Safety Area<br>[Primary Airports]                             | 660,750  | 0   |  |
|                | Extend Runway (Capacity)   | 146,469,247                                      | 73,751,444                                    |  |
|                | Extend Runway (Standards)  | 18,408,698                                       | 33,534,209                                    |  |
|                | Extend Runway Safety Area<br>[Nonprimary Airports]                             | 201,423  | 0   |  |
|                | Improve Runway Safety Area<br>[Nonprimary Airports]                            | 4,968,834  | 1,911,099                                     |  |
|                | Improve Runway Safety Area [Primary<br>Airports]                               | 9,493,075  | 21,370,000                                    |  |
|                | Install Instrument Approach Aid  | 6,771,864  | 0   |  |
|                | Install Runway Lighting (HIRL, MIRL)<br>[Reqd by Part 139 only]                | 213,125  | 176,500                                       |  |
|                | Install Runway Lighting [not reqd by<br>Part 139]                              | 3,116,533  | 200,000                                       |  |
|                | Install Runway Vertical/Visual<br>Guidance System<br>(PAPI/VASI/REIL/ALS/etc.) | 2,915,000  | 1,139,450                                     |  |
|                | Rehabilitate Runway  | 261,019  | 326,274                                       |  |
|                | Strengthen Runway (Standards)  | 1,687,534  | 3,679,726                                     |  |
|                | Widen Runway (Standards)   | 2,152,500  | 0   |  |
|                | 80 Total   | 334,349,523                                      | 170,098,066                                   | 50.9%  |
|                | RUNWAY Total   | 521,825,024                                      | 313,534,132                                   | 60.1%  |

#### 9.3.5.7 Taxiways

Similar to runway projects, taxiway projects include projects that support the operational capacity of the taxiway system as part of the overall airfield. Projects include lighting, widening, and taxiway extensions. In total, \$314,660,990 was requested from the state for taxiway projects, with \$316,761,543 programmed in the current Work Program. As shown in **Figure 9-10** and **Table 9-13**, different types of taxiway projects received SSGAT scores between 45 and 95. Based on



the analysis, even though the highest SSGAT score projects were not funded, it appears that taxiway projects are well funded in the Work Program.



Figure 9-10: Taxiway Projects in the JACIP and FDOT Work Program (FY 17-22)

Source: Florida Aviation Database (FAD); Florida Department of Transportation (FDOT) Work Program Data, accessed March 2017

| Table 9-13: Taxiway Projects in the JACIP and FDOT Five Year Work Program (FY 17-22 | Table 9 | -13: Taxiway | <b>Projects in the</b> | <b>JACIP</b> and FDOT | Five Year Work Program | n (FY 17-22) |
|---|---------|--------------|------------------------|-----------------------|------------------------|--------------|
|---|---------|--------------|------------------------|-----------------------|------------------------|--------------|

| SSGAT<br>Score | Project Type  | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs.<br>Requested |
|----------------|---|--|---|--|
| 45             | Install Taxiway Lighting (MITL) (Non-Part<br>139 Com Svc) | 92,270   | 0   |  |
| 10             | 45 Total  | 92,270   | 0   | 0.0%   |
|                | Install Taxiway Lighting                                  | 1,681,289  | 1,947,633                                     |  |
| 50             | Strengthen Taxiway (Standards)                            | 312,120  | 718,000                                       |  |
|                | Widen Taxiway (Standards)                                 | 4,118,105  | 750,000                                       |  |
|                | 50 Total  | 6,111,514  | 3,415,633                                     | <b>55.9%</b>                                 |
|                | Rehabilitate Taxiway                                      | 129,828,977                                      | 175,688,554                                   |  |
| 80             | Rehabilitate Taxiway Lighting                             | 363,000  | 1,860,000                                     |  |



| SSGAT<br>Score | Project Type   | JACIP<br>Requested<br>Funding in<br>Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs.<br>Requested |
|----------------|--|--|---|--|
|                | 80 Total   | 130,191,977                                      | 177,548,554                                   | 1 <b>36.4</b> %                              |
|                | Construct Taxiway (Capacity)                         | 69,690,136                                       | 51,219,805                                    |  |
|                | Construct Taxiway (Standards)                        | 41,167,823                                       | 66,055,171                                    |  |
|                | Extend Taxiway (Capacity)                            | 60,024,960                                       | 4,787,985                                     |  |
| 86             | Extend Taxiway (Standards)                           | 6,997,451  | 13,734,395                                    |  |
|                | Install Taxiway Lighting                             | 132,778  | 0   |  |
|                | 86 Total   | 178,013,148                                      | 135,797,356                                   | 76.3%  |
| 92             | Install Taxiway Lighting [Required by PART 139 only] | 157,778  | 0   |  |
|                | 92 Total   | 157,778  | 0   |  |
| 95             | Construct Taxiway (environmental mitigation)         | 94,303   | 0   |  |
|                | 95 Total   | 94,303   | 0   | 0.0%   |
|                | TAXIWAY Total  | 314,660,990                                      | 316,761,543                                   | 100.7%                                       |

#### 9.3.5.8 Terminals

Terminals represent the gateways to airports and provide users access to and from the airside facilities. At GA airports, terminals may house a rest area, office space, and a flight planning room while the terminals at commercial service airports house check-in area, baggage claim, security facilities, concessions, and the gates by which users get to their flight. In total, \$650,024,757 was requested from the state for terminal projects, with \$260,199,355 programmed in the current Work Program. As shown in **Figure 9-11** and **Table 9-14**, different types of terminal projects received SSGAT scores of either 50 or 74. As shown, projects that were designated as "Standards" projects received an SSGAT score of 50 while the projects designated as "Capacity" received SSGAT scores of 74. Overall, terminal projects are very well funded in the Work Program, indicating support from the District offices in funding terminal projects.





Figure 9-11: Terminal Projects in the JACIP and FDOT Work Program (FY 17-22)

| SSGAT<br>Score | Project Type                                  | JACIP Requested<br>Funding in Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs.<br>Requested |
|----------------|---|--|---|--|
|                | Construct Terminal Building<br>(Standards)    | 28,496,211                                 | 11,577,686                                    |  |
|                | Expand Terminal Building<br>(Standards)       | 8,628,500                                  | 4,820,000                                     |  |
| 50             | Improve Terminal Building<br>(Standards)      | 50,797,816                                 | 71,884,949                                    |  |
|                | Modify Terminal Building<br>(Standards)       | 17,033,885                                 | 17,598,186                                    |  |
|                | Rehabilitate Terminal Building<br>(Standards) | 31,251,375                                 | 28,425,906                                    |  |
|                | 50 Total                                      | 136,207,787                                | 134,306,727                                   | 98.6%  |
| 74             | Construct Terminal Building<br>(Capacity)     | 379,918,587                                | 83,850,000                                    |  |



| SSGAT<br>Score | Project Type                                 | JACIP Requested<br>Funding in Dollars (\$) | Work<br>Program<br>Funding in<br>Dollars (\$) | Percentage<br>Programmed<br>vs.<br>Requested |
|----------------|--|--|---|--|
|                | Expand Terminal Building<br>(Capacity)       | 24,781,152                                 | 4,010,000                                     |  |
|                | Improve Terminal Building<br>(Capacity)      | 77,206,900                                 | 10,000,000                                    |  |
|                | Modify Terminal Building<br>(Capacity)       | 16,822,494                                 | 28,032,628                                    |  |
|                | Rehabilitate Terminal Building<br>(Capacity) | 15,087,837                                 | 0   |  |
|                | 74 Total                                     | 513,816,970                                | 125,892,628                                   | 24.5%  |
|                | TERMINAL Total                               | 650,024,757                                | 260,199,355                                   | 40.0%  |

# 9.3.6 Findings

Based on the SSGAT analysis, many project categories from the SSGAT are successful in supporting the goals of the FASP; however, there are some that do not appear to have a high correlation. There also appears to be a large discrepancy in how SSGAT scores are assigned. For example, in the "Other" category, one fuel farm project received an SSGAT score of 39 while another received a score of 72. Discrepancies in how SSGAT scores are calculated could potentially have an impact on the projects that are being programmed and supporting the goals of the FASP.

# 9.4 SIS-Funded Projects Analysis

As previously mentioned throughout this FASP 2035 Update, the SIS represents the largest, most significant, and highest priority transportation facilities in the state. As such, there are limitations to the facilities that can be designated as SIS facilities and further restrictions on the types of projects that are eligible for additional state funding through the SIS program. Data on the SIS program from the FDOT Office of Implementation Planning and FDOT Systems Implementation Office, and aviation-specific SIS data from the FDOT *Florida Aviation Project Handbook*, were analyzed to better understand the project eligibility and use of SIS funding in the last five years. This section also includes a brief summary of the aviation projects that are programmed to receive SIS funds in the next five fiscal years as well as a summary of roadway projects near SIS airports that are receiving SIS funds.

#### 9.4.1 SIS Classifications

As described in **Chapter 3 – Airport System and Classifications**, there are currently three classifications of SIS airports: SIS commercial service airports, Emerging SIS commercial service



airports, and GA reliever airports. Twenty FASP airports fall into one of these categories. **Table 9-15** provides a breakdown of SIS facilities in Florida.

| Table | 9-15: | SIS | Airports | in | Florida |
|-------|-------|-----|----------|----|---------|
|-------|-------|-----|----------|----|---------|

| Associated City               | Airport Name                                    | FAA ID |
|-------------------------------|---|--------|
|                               | SIS Airports                                    |        |
| Fort Lauderdale               | Fort Lauderdale-Hollywood International Airport | FLL    |
| Fort Myers                    | Southwest Florida International Airport         | RSW    |
| Jacksonville                  | Jacksonville International Airport              | JAX    |
| Miami                         | Miami International Airport                     | MIA    |
| Orlando                       | Orlando International Airport                   | мсо    |
| Tampa                         | Tampa International Airport                     | TPA    |
| West Palm Beach               | Palm Beach International Airport                | PBI    |
|                               | Emerging SIS Airports                           |        |
| Daytona Beach                 | Daytona Beach International Airport             | DAB    |
| Gainesville                   | Gainesville Regional Airport                    | GNV    |
| Melbourne                     | Melbourne International Airport                 | MLB    |
| Orlando                       | Orlando-Sanford International Airport           | SFB    |
| Panama City                   | Northwest Florida Beaches International Airport | ECP    |
| Pensacola                     | Pensacola International Airport                 | PNS    |
| Punta Gorda                   | Punta Gorda Airport                             | PGD    |
| Sarasota/Bradenton            | Sarasota Bradenton International Airport        | SRQ    |
| St. Petersburg-<br>Clearwater | St. Pete-Clearwater International Airport       | PIE    |
| Tallahassee                   | Tallahassee International Airport               | TLH    |
| Valparaiso                    | Destin-Ft. Walton Beach Airport                 | VPS    |
|                               | General Aviation Reliever SIS Airports          |        |
| Miami                         | Miami Executive Airport                         | TMB    |
| Orlando                       | Kissimmee Gateway Airport                       | ISM    |

Source: Florida's Strategic Intermodal System (SIS) Strategic Plan

It should be noted that of the 20 commercial service airports in Florida, two are currently not designated as SIS or Emerging SIS facilities. These airports are Northeast Florida Regional Airport



and Key West International Airport. FASP recommendations related to the SIS are included in **Chapter 10 – Recommendations**.

# 9.4.2 Projects Eligible for Funding

Airports included in the SIS have access to additional state funding for projects that meet strict eligibility criteria. Specifically, SIS funds are reserved for projects that increase capacity. Though SIS funding is intended for capacity projects, there are numerous types of airport capacity projects that can be funded, including terminal expansion, automated people movers, and runway and taxiway expansion. **Table 9-16** provides an overview of the types and examples of projects that can use SIS funds.

| SIS Project Categories | Projects Eligible for Funding  | Projects Not Eligible for Funding   |
|------------------------|--|---|
| Ground Transportation  | On-airport transportation<br>facilities that support the primary<br>flow of passengers and cargo<br>and that link to SIS facilities (e.g.,<br>passenger terminal and cargo<br>facility direct access roadways;<br>busways; rail lines) | Facilities that focus on airport<br>operations rather than primary<br>flows (e.g., other on-airport<br>roadways; parking facilities; on-<br>airport rental car facilities; airport<br>shuttle bus roads; non-FDOT land<br>purchase) |
| Landside Connections   | On-airport multimodal facilities<br>that link passenger and cargo<br>terminals with an SIS connector<br>or hub. (e.g., on-airport<br>rail/people mover stations or<br>intermodal/bus terminals)  | Airport terminals; airside<br>terminals; terminal shuttles;<br>projects serving GA operations<br>exclusively; non-FDOT land<br>purchase   |
| Airside Connections    | Facilities that link passenger and<br>cargo terminals with aviation<br>corridors (e.g., apron expansion;<br>taxiway (new or extension);<br>runways (new or extension); and<br>approach lighting related to<br>new or extended runways) | Non-FDOT land purchase;<br>equipment used in airside<br>operations; projects serving GA<br>operations exclusively   |
| Terminal Connections   | People mover (capacity);<br>baggage system (capacity/non-<br>security enhancements)<br>Terminal buildings and gates<br>needing capacity improvements<br>to facilitate the movement of<br>people and goods                              | Maintenance facilities and<br>operations; non-FDOT land<br>purchase, security, customs, and<br>the expansion of<br>retail/concession space  |

#### Table 9-16: Airport Capacity Projects Eligible for SIS Funding

\*Landside connections not eligible for funding except when integrated with other off-site modes. Source: Florida Department of Transportation (FDOT) Project Handbook, 2016



# 9.4.3 Historical SIS Funding

To understand what type of projects, and more specifically what airports, are receiving SIS funding, an analysis was conducted that evaluated the use of SIS funds over the last five years using data from the FDOT Work Program. For the purposes of this analysis, FY 2013 to 2017 were used and funding was analyzed by project type, airport, and FDOT District.

#### 9.4.3.1 Funding by Project Type

For all SIS aviation funds programmed between FY 13 and FY 17, close to 50 percent were used for automated people mover projects. Automated people movers generally consist of a gradeseparated rail system that allows for faster movement of people between terminals and gates or other areas outside of the terminal. In total, automated people movers accounted for over \$156 million in funding. The second most common project type was terminal expansion. Statewide, 28 percent (over \$90 million) went to terminal projects.

Together, automated people movers and terminal facilities account for approximately 75 percent of all SIS aviation funds in the state between FY 13 and FY 17. Following terminal expansion, runway projects and manufacturing facilities<sup>7</sup> were the next two most common types of projects that received SIS airport funding. These projects received eight percent (\$27 million) and seven percent (\$22 million), respectively, of SIS aviation funding. Across all other project types, none received more than three percent of the total SIS aviation funding. A summary of funding by project type is provided in **Table 9-17**.

| Project Type           | Amount        | Percentage |
|------------------------|---------------|------------|
| Automated People Mover | \$156,500,000 | 47%        |
| Terminal               | \$90,812,200  | 28%        |
| Runway                 | \$27,774,889  | 8%         |
| Aviation Manufacturing | \$22,000,000  | 7%         |
| Taxiway                | \$8,799,300   | 3%         |
| Access Road            | \$7,553,768   | 2%         |
| Air Commerce Park      | \$7,000,000   | 2%         |
| Terminal Shuttle Cars  | \$5,400,000   | 2%         |
| Cargo Facility         | \$3,031,546   | 1%         |
| Apron                  | \$1,000,000   | 0.3%       |
| Total                  | \$329,871,703 | 100%       |

#### Table 9-17: Funding by Project Type, FY 13-17

Source: Florida Department of Transportation (FDOT) Work Program; Kimley-Horn Analysis, 2017



<sup>&</sup>lt;sup>7</sup> These projects included the design and construction of aviation manufacturing buildings and supporting infrastructure.

#### 9.4.3.2 Funding by Airport

Over the last five years, only seven airports have received SIS aviation funding. Of these, Tampa International Airport and Orlando International Airport accounted for over 80 percent of all SIS aviation funding. Ft. Lauderdale-Hollywood International Airport, Melbourne International Airport, and Pensacola International Airport accounted for an additional 18 percent. Finally, Palm Beach International Airport and Destin-Ft. Walton Beach Airport accounted for under a half a percent of all SIS aviation funds. A summary of the airports that received SIS aviation funding is provided in **Table 9-18**.

#### Table 9-18: SIS Aviation Funding by Airport, FY 13-17

| Airport   | Amount        | Percentage |
|---|---------------|------------|
| Tampa International Airport                       | \$178,811,500 | 54%        |
| Orlando International Airport                     | \$90,214,577  | 27%        |
| Ft. Lauderdale-Hollywood<br>International Airport | \$27,774,889  | 8%         |
| Melbourne International Airport                   | \$23,500,000  | 7%         |
| Pensacola International Airport                   | \$8,531,546   | 3%         |
| Palm Beach International Airport                  | \$1,000,000   | 0.3%       |
| Destin-Ft. Walton Beach Airport                   | \$39,191      | 0.01%      |
| Total   | \$329,871,703 | 100%       |

Source: Florida Department of Transportation (FDOT) Work Program; Kimley-Horn Analysis, 2017

#### 9.4.3.3 Funding by FDOT District

Only four FDOT Districts received SIS aviation funding between FY 13 and FY 17. **Table 9-19** reveals that District 7 accounted for approximately 54 percent of all SIS aviation funding. All SIS aviation funding in District 7 went to Tampa International Airport. Following District 7, District 5 received 34 percent of all funding while District 4 received nine percent and District 3 received three percent. A summary of funding by FDOT District is provided in Table 9-19.

Table 9-19: Funding by FDOT District, FY 13-17

| FDOT District | Amount        | Percentage |
|---------------|---------------|------------|
| 7             | \$178,811,500 | 54%        |
| 5             | \$113,714,577 | 34%        |
| 4             | \$28,774,889  | 9%         |
| 3             | \$8,570,737   | 3%         |
| Total         | \$329,871,703 | 100%       |

Source: Florida Department of Transportation (FDOT) Work Program; Kimley-Horn Analysis, 2017



# 9.4.4 Looking Ahead – SIS Aviation Funding

In the next five years of the FDOT Work Program (FY 18 to FY 22), \$115,688,320 in SIS aviation funds is expected to be spent on airports and aviation projects in Florida. As shown in **Table 9-20**, a majority (48 percent) of SIS aviation funds will be spent on terminal expansions with the next highest category being automated people movers. Combined, these two project categories combine for over 80 percent of all SIS aviation funds over the next five years. Similar to the data from the previous five years of the Work Program shown in Table 9-18, Tampa International Airport and Orlando International Airport will receive a majority of the overall funding in the next five years (**Table 9-21**). Similarly, as depicted in **Table 9-22**, FDOT District 7 and 5 will receive the largest portion (84 percent) of all SIS aviation funding over the next five years.

| Project Type           | Amount        | Percentage |
|------------------------|---------------|------------|
| Terminal               | \$56,000,000  | 48%        |
| Automated People Mover | \$40,000,000  | 35%        |
| Hangar                 | \$7,500,000   | 6%         |
| Access Road            | \$6,712,820   | 6%         |
| Taxiway                | \$3,425,500   | 3%         |
| Runway                 | \$1,750,000   | 2%         |
| Cargo Facility         | \$300,000     | 0.3%       |
| Total                  | \$115,688,320 | 100%       |

#### Table 9-20: Funding by Project Type, FY 18-22

Source: Florida Department of Transportation (FDOT) Work Program; Kimley-Horn Analysis, 2017

#### Table 9-21: Funding by Airport, FY 18-22

| Airport   | Amount        | Percentage |
|---|---------------|------------|
| Tampa International Airport                       | \$78,000,000  | 67%        |
| Orlando International Airport                     | \$18,000,000  | 16%        |
| Pensacola International Airport                   | \$10,675,500  | 9%         |
| Ft. Lauderdale-Hollywood<br>International Airport | \$7,712,820   | 7%         |
| Melbourne International Airport                   | \$1,300,000   | 1%         |
| Total   | \$115,688,320 | 100%       |

Source: Florida Department of Transportation (FDOT) Work Program; Kimley-Horn Analysis, 2017



#### Table 9-22: Funding by FDOT District, FY 18-22

| FDOT District | Amount        | Percentage |
|---------------|---------------|------------|
| 7             | \$78,000,000  | 67%        |
| 5             | \$19,300,000  | 17%        |
| 3             | \$10,675,500  | 9%         |
| 4             | \$7,712,820   | 7%         |
| Total         | \$115,688,320 | 100%       |

Source: Florida Department of Transportation (FDOT) Work Program; Kimley-Horn Analysis, 2017

Based on this analysis, it is evident that SIS aviation funds are being used for a very specific set of projects and are most often used at the largest airports in the state. As reported, of all SIS aviation funds analyzed from the previous Five Year Work program, 90 percent went to large hub airports. This supports the purpose of the SIS, which is to "represent the state's primary means for moving people and freight between Florida's diverse regions, as well as between Florida and other states and nations." FDOT is currently examining the possibility of updating the SIS categories and the SIS designation criteria to reflect the strategic nature of aviation facilities throughout the state. To date, nothing has been finalized, but it is recommended that a comparison of SIS funding be updated once the new criteria are established to determine how the new criteria affect the projects that receive funding. As previously mentioned, SIS recommendations are included in **Chapter 10 – Recommendations**.

# 9.4.5 Looking Ahead – Non-Aviation SIS Funding

In addition to the numerous projects that have been funded at airports, access to SIS airport facilities on SIS roads is a critically important factor in the overall state transportation system. SIS road facilities make up 25 percent of all state highway centerline miles that account for 55 percent of all vehicle miles traveled on Florida's state highway system and 70 percent of all truck miles traveled on the state highway system. As described, these facilities are critical to efficiently moving both people and freight throughout the state. Though these facilities do not explicitly enhance capacity at airports, they do improve overall mobility and access to them.

To understand the level of impact SIS roadway facilities are having on airports, an analysis was completed to determine what SIS roadway projects are being funded within one mile of an airport and within five miles of an airport (note: the analysis for projects within five miles of the airport includes the projects that are within one mile of the airport). For this analysis, funding was evaluated by both project type as well as FDOT District. The funding amounts shown reflect the number of dollars committed to a project, adjusted to the year of planned expenditure for inflation.



#### 9.4.5.1 Non-Aviation Project Within One Mile of a SIS Airport

Overall, approximately \$519 million worth of roadway projects are scheduled for funding between FY 17 and FY 21<sup>8</sup> for SIS roadways within one mile of a SIS airport. As shown in **Table 9-23**, 53 percent of the funding is going to FDOT District 3, with FDOT Districts 7 and 4 also receiving funding. Four FDOT Districts are not scheduled to receive SIS roadway funds for projects within one mile of an SIS airport between FY 17 and FY 21. **Table 9-24** depicts that five different project types are programmed to receive SIS funding between FY 17 and FY 21. Of these, a project that involves adding four travel lanes is receiving 53 percent of the funding. Other projects receiving a significant amount of funding include constructing managed lanes and building new roads. Together, these two project types account for 36 percent (18 percent each) of the SIS funding. The other two project types that are programed to receive funding include preliminary engineering and project development and environmental (PD&E) work.

| FDOT District | Amount        | Percentage |
|---------------|---------------|------------|
| 3             | \$274,914,000 | 53%        |
| 7             | \$185,360,000 | 36%        |
| 4             | \$58,808,000  | 11%        |
| Total         | \$519,082,000 | 100%       |

#### Table 9-23: SIS Roadway Funding Within One Mile by FDOT District

Source: Florida Department of Transportation (FDOT) Work Program; Kimley-Horn Analysis, 2017

#### Table 9-24: SIS Roadway Funding Within One Mile by Project Type

| Project Type                             | Amount        | Percentage |
|--|---------------|------------|
| Add 4 to Build 6 Lanes                   | \$274,914,000 | 53%        |
| Managed Lanes                            | \$93,212,000  | 18%        |
| New Road                                 | \$92,148,000  | 18%        |
| Preliminary Engineering                  | \$56,750,000  | 11%        |
| Project Development and<br>Environmental | \$2,058,000   | 0.4%       |
| Total                                    | \$519,082,000 | 100%       |

Source: Florida Department of Transportation (FDOT) Work Program; Kimley-Horn Analysis, 2017

#### 9.4.5.2 Non-Aviation Project Within Five Miles of an SIS Airport

Overall, there are \$12 billion worth of SIS road projects within five miles of an SIS airport scheduled for funding between FY 17 and FY 21. As shown in **Table 9-25**, FDOT Districts 4 and 7 are programmed to receive 47 and 45 percent, respectively, of SIS funding for projects that are



<sup>&</sup>lt;sup>8</sup> FY 18-22 data was not available at the time of this writing so FY 17-21 was used.

within five miles of an SIS airport. Together, all the other FDOT Districts, including the Turnpike, received approximately nine percent of funding.<sup>9</sup> Similarly, projects to construct managed lane facilities are programmed to receive 90 percent of all SIS funds for roadway projects (**Table 9-26**). In total, managed lanes are programmed to receive close to \$10 billion more in funding than all other project types combined.

| FDOT District | Amount           | Percentage |
|---------------|------------------|------------|
| 4             | \$5,757,995,000  | 47%        |
| 7             | \$5,501,429,000  | 45%        |
| 3             | \$502,597,000    | 4%         |
| 6             | \$293,818,000    | 2%         |
| Turnpike (8)  | \$127,057,000    | 1%         |
| 1             | \$124,292,000    | 1%         |
| 2             | \$16,437,000     | 0.1%       |
| 5             | \$13,275,000     | 0.1%       |
| Total         | \$12,336,900,000 | 100%       |

Table 9-25: SIS Roadway Funding Within Five Miles by FDOT District

Source: Florida Department of Transportation (FDOT) Work Program; Kimley-Horn Analysis, 2017

#### Table 9-26: SIS Roadway Funding Within Five Miles by Project Type

| Project Type                             | Amount           | Percentage |
|--|------------------|------------|
| Managed Lanes                            | \$11,162,526,000 | 90%        |
| Add 4 to Build 6 Lanes                   | \$558,236,000    | 5%         |
| Add 2 to Build 4 Lanes                   | \$193,382,000    | 2%         |
| New Road                                 | \$110,124,000    | 1%         |
| Preliminary Engineering                  | \$102,150,000    | 1%         |
| Project Development and<br>Environmental | \$95,482,000     | 1%         |
| Add 2 to Build 6 Lanes                   | \$67,330,000     | 1%         |
| Add Turn Lane                            | \$23,810,000     | 0.2%       |
| Right Of Way                             | \$13,594,000     | 0.1%       |
| Add 2 to Build 8 Lanes                   | \$10,266,000     | 0.1%       |

<sup>&</sup>lt;sup>9</sup> The Turnpike is an enterprise independent of any FDOT District but still under FDOT.



| Total | \$12,336,900,000 | 100% |
|-------|------------------|------|
|-------|------------------|------|

Source: Florida Department of Transportation (FDOT) Work Program; Kimley-Horn Analysis, 2017

#### 9.4.6 SIS Findings

This SIS analysis reveals that SIS funding plays an integral role in the support for and development of transportation projects in Florida. Without this funding, many aviation-related projects may lack the resources to adequately fund and develop the facilities needed to keep up with the ever-expanding capacity needs at Florida's airports.

# 9.5 Summary

To help plan improvements and allocate limited resources across the state's system of airports, FDOT ASO and FDOT District staff rely on prioritization processes and alternate sources of funding available to eligible airports. While programs like the SIS help in this effort, a gap remains between the projects identified in the FDOT's FY 18-22 Work Plan and the development estimates included in the 2017 – 2021 NPIAS. The findings in this Chapter emphasize the importance of continued coordination between the FAA, the FDOT ASO, FDOT Districts, and airport sponsors to make the most effective use of available resources.

