

STATEWIDE AVIATION
Economic Impact Study



Technical Report

2019





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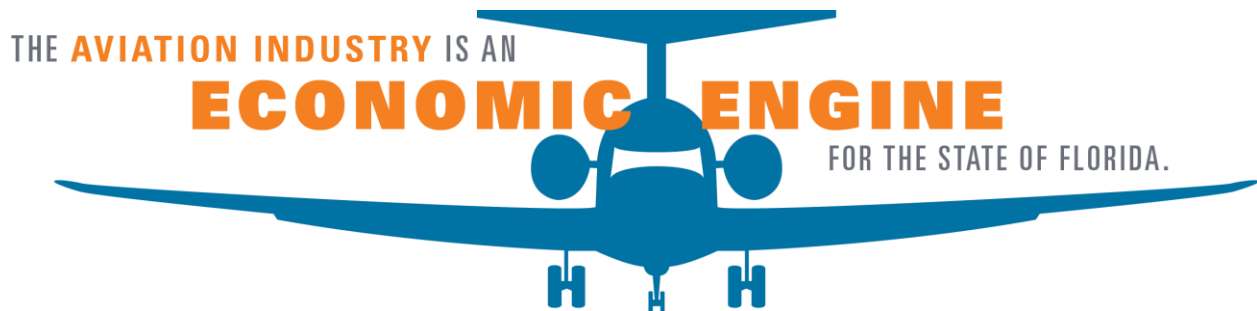
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1. Overview

Florida's airports are vital to daily life and trade because airports connect people and businesses, whether for personal travel, air cargo, or business activity. The state's aviation system keeps Florida connected to the global marketplace, while simultaneously driving our local economies. To better understand the aviation industry's value to the state's economy, the Florida Department of Transportation (FDOT) Aviation and Spaceports Office periodically conducts a statewide economic impact study (EIS) of Florida's airports. As the fourth iteration of this analysis, the 2019 Statewide Aviation EIS (or the Study) quantifies and communicates the economic contributions of aviation to Florida.



As the link that connects people and economic markets, Florida's airports help ensure sustained economic growth. The state's airports support economic activity by providing access to destinations within Florida, throughout the country, and across the globe. Florida's airports also provide real estate and infrastructure for important aviation- and non-aviation-related activities such as manufacturing, logistics, recreation, and emergency response. The economic impact of Florida's aviation system extends beyond airport

Florida's 129 public-use airports (including 20 commercial service airports) and military airports support the State's diverse economy.

property boundaries, with businesses throughout Florida depending on airports for transportation and logistical services. Institutions that offer aviation-related educational programs, flight training, and other similar fields attract out-of-state students to Florida and train a technically

competent workforce for the future of the aviation and aerospace industries. Tourism, one of Florida's top economic drivers, is intrinsically tied to Florida's aviation system, as most out-of-state visitors arrive to the state via air travel.¹ Furthermore, Florida's military airports contribute to the state's economy by employing thousands of people and through capital investments.²

¹ *The Economic Impact of Out-of-State Visitors in Florida. 2017. Visit Florida.*

² *Military airports in the scope of this Study include Naval Air Station (NAS) Jacksonville, Naval Station (NS) Mayport, Eglin Air Force Base (AFB), Hurlburt Field, NAS Pensacola, NAS Whiting Field, Tyndall AFB, Patrick AFB, Homestead Air Reserve Base, NAS Key West, and MacDill AFB.*



Airports offer significant economic contributions to our communities by supporting jobs, generating payroll, and triggering spending at the local, regional, and state levels. Yet the value of airports transcends transportation and economics. Florida's airports add value in ways that are not easily measured in dollars. Our communities' airports are on the front line of disaster preparation and response, from wildland firefighting to search and rescue operations and disaster staging. Airports are often the base for aircraft that conduct utility inspections and provide emergency medical transportation. Whether an airport serves an economic stimulator or critical link to essential services, continued investment in Florida's airports today will support economic growth for generations to come.

EMERGENCY MEDICAL AVIATION CASE STUDY

In addition to serving in traditional roles most commonly associated with air transportation, airports support many critical services not always recognized by the public. From air ambulances, medical transport, and emergency medical service (EMS) aircraft to law enforcement, aerial firefighting, disaster response and relief, and search and rescue efforts, airports are a key factor in disaster and emergency response.

Top: Based at Cecil Field, the U.S. Coast Guard's Helicopter Interdiction Tactical Squadron Jacksonville unit provides law enforcement and search and rescue services for the southeastern United States.

Bottom: Organizations like Angel Flight provide transportation during medical crises when speed is of the essence or communities are unreachable by ground transportation.



This Study focuses on economic activities such as on-airport business activity, capital improvements, and out-of-state visitor spending. To gather data related to these activities, the FDOT Aviation and Spaceports Office used primary and secondary data sources. Primary data sources include surveys of airport administration, businesses on airports, aviation-reliant businesses, and out-of-state general aviation (GA) and commercial service passengers. This report refers to these surveys as EIS surveys. Secondary data sources include Department of Defense (DOD) economic impact publications and reference materials available from the Base Closure and Realignment Commission (BRAC), Airline Data Products, Inc., Reference USA, ESRI Community Analyst, and Impact Analysis for Planning (IMPLAN). As further described in Section 3: Approach Overview and Appendix E: Study Methodology, primary data were input into IMPLAN, an economic modeling software, to generate direct, indirect (supplier purchases), and induced (employee spending) impacts for each public-use airport. Results of the Study are reported by FDOT



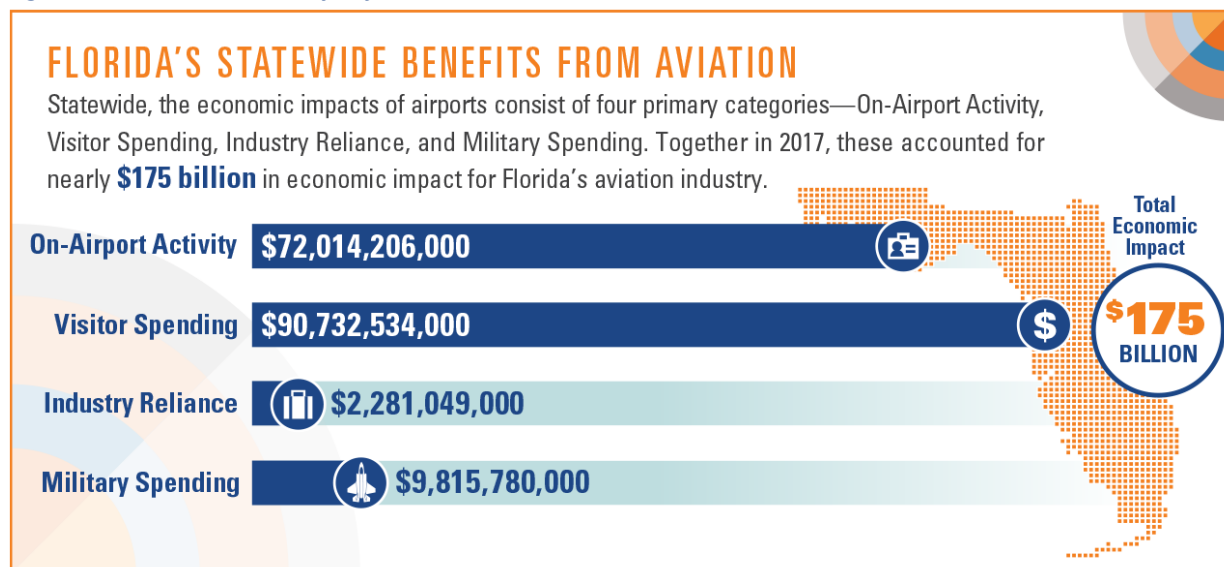
District, statewide, and airport-specific levels and are presented in 2017 dollars. The following sections present results at the FDOT District level and statewide. Appendix A: Economic Impacts by Airport summarizes airport-specific impacts.

The 2019 Study results showed that in 2017 Florida's public-use and military airports generated \$175 billion in economic activity, supported 1.4 million jobs, and contributed \$60 billion in payroll to Florida's economy.

As summarized in Figure 1-1, the economic impacts of Florida's public-use and military airports comprise the following types of impacts:

- **On-Airport Activity: \$72 BILLION**
 - Includes activity generated by airport administration, business tenants, and on-airport capital improvements
- **Visitor Spending: \$91 BILLION**
 - Demonstrates the value of aviation to Florida's tourism industry
 - Captures the impacts related to out-of-state visitors' spending on goods and services while in Florida
- **Industry Reliance: \$2.3 BILLION**
 - Generated by businesses that utilize airports for delivery services and air transportation but are not based at an airport
- **Military Spending: \$9.8 BILLION**
 - Includes capital expenditures and payroll

Figure 1-1. Statewide Benefits from Aviation



Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.



1.1 Background

In 2000, the FDOT released the first economic impact study of Florida's public-use and military airports as part of the Florida Aviation System Plan (FASP). Based on statewide interest in the economic impact component of the FASP and changing economic conditions in Florida, FDOT completed a standalone study in 2010 (data collected in 2008). The 2010 Florida Statewide Aviation EIS quantified the economic impact of Florida's public-use and military airports statewide and estimated the specific impact of each airport. Because economic conditions were rapidly changing due to the Great Recession and subsequent recovery, FDOT updated this report in 2014 using a combination of a 2012 input/output model, 2008 data normalized to 2013, and some 2013 actual data. The 2014 Florida Statewide Aviation EIS Update (2014 Study) estimated airport and statewide economic impacts.

FDOT completed this 2019 Statewide Aviation EIS based on data from 2017 to provide current information on the impact of the state's aviation industry on Florida's economy. The updated calculations for this Study are based on current data collected from multiple sources including surveys, in-person interviews, and other industry sources. The economic impacts are reported by the FDOT Districts to be consistent with the current FASP and most effectively inform FDOT in funding and strategic planning decisions. Note that it is not appropriate to compare results between the 2014 and 2019 studies for several reasons: 1) terminology has been updated and may not directly translate; 2) the methodology was updated; and 3) the current study groups study results in different categories than the last study.

1.2 Study Purpose

FDOT Aviation and Spaceports Office conducted this Study to better understand the overall role of aviation in the state's economy and inform state decision making. The Study captures both quantitative economic impacts and community benefits through qualitative case studies that

This economic impact study explores and communicates the economic value of Florida's airports.

describe real life examples of how the aviation industry impacts Florida's businesses and communities. **The Study communicates the quantitative impact of aviation activities through jobs, payroll (including wages, benefits, and profits), and output.** Each iteration of the Statewide Aviation EIS is a snapshot in time of the value of Florida's airports. Study outcomes inform statewide planning efforts, and deliverables are a tool the FDOT and airports can use to communicate the value of airports and aviation to local communities.



1.3 Communicating Results

The Study groups impacts according to on-airport activity, visitor spending, industry reliance, and military spending. Each category comprises direct impacts; supplier purchases (indirect impacts); and employee spending (induced impacts) including jobs, payroll and output metrics [except industry reliance].³

- **On-Airport Activity:** includes the economic impact of airport administration, business tenants, and capital investment on airports.
- **Visitor Spending:** includes the economic impact of out-of-state commercial service and general aviation travelers.
- **Industry Reliance:** is the portion of economic impacts generated by businesses that use aviation for air cargo and business travel.
- **Military Spending:** includes the economic impact of military airports in terms of jobs, payroll, and capital investments.



Figure 1-2. Study Result Categories

1.4 Florida's Airports

The Study considers 120 of Florida's 129 public-use airports shown in Figure 1-3. The nine public-use airports excluded from the Study are Bob Lee Flight Strip (1J6), Chalet Suzanne Air Strip (X25), Halifax River Seaplane Base (F15), Indiantown Airport (X58), Massey Ranch Airpark (X50), Mid Florida Air Service Airport (X55), Shell Creek Airpark (F13), Tallahassee Commercial Airport (68J), and Tampa North Aero Park (X39). These privately-owned airports opted out of the study.

The National Plan of Integrated Airport Systems (NPIAS) and FASP categorize airports based on the role the airport serves in national and state airport systems. **Within the FASP, 104 airports are within the publicly owned, public-use category; 24 are within the privately owned, public-use category; and one is a joint civilian/military airport.**⁴ The NPIAS classifies airports into two major categories: primary and nonprimary. Generally, most commercial service airports fall within the primary category and GA airports fall within nonprimary category. The primary airports are further broken down as follows:⁵

- **Large Hub:** Account for one percent or more of all passenger enplanements within the United States (or U.S.)

³ Industry reliance impacts do not include multiplier effects (i.e., supplier purchases and employee spending).

⁴ FASP 2035. 2017. FDOT Aviation and Spaceports Office.

⁵ NPIAS 2019 – 2023. 2018. FAA.



- **Medium Hub:** Account for 0.25 percent to one percent of all passenger enplanements within the U.S.
- **Small Hub:** Account for 0.50 percent to 0.25 percent of all passenger enplanements within the U.S.
- **Non-Hub:** Enplane less than 0.05 percent of all commercial passenger enplanements but have less at least 10,000 annual enplanements

20 of the 120 airports considered by the Study are commercial service airports, with four categorized as large hubs, three as medium hubs, seven as small hubs, and six as non-hubs in the NPIAS.⁵

The remaining 100 GA airports range from small, privately owned, public-use airports that are not in the NPIAS to some of the busiest GA airports in the United States, such as Fort Lauderdale Executive Airport (FXE). GA airports support many types of activities and thus have varying roles in the NPIAS and FASP. The NPIAS nonprimary categories are:⁵

- **Nonprimary Commercial Service:** At least 2,500 but no more than 10,000 annual enplanements
- **Reliever:** FAA-designated to serve as alternatives to congested commercial service hub. To be eligible for this designation, the airport must be open to the public and have 100 or more based aircraft or 25,000 or more annual itinerant operations.
- **GA:** All nonprimary airports that are not designated as nonprimary commercial service or reliever airports

80 of the 120 airports considered by this Study are categorized as GA airports.

General Aviation Airports: A National Asset (Asset 1), published by the FAA, further categorizes GA airports as follows:⁶

- **National:** Support the national and state systems by providing communities with access to national and international markets
- **Regional:** Support regional economies by connecting communities to statewide and interstate markets
- **Local:** Supplement communities by providing access to primarily intrastate and some interstate markets
- **Basic:** Link the community with the national airport system and support GA activities (e.g., emergency services, charter or critical passenger service, cargo operations, flight training, and personal flying)

Of the 80 GA airports, nine are categorized as national, 30 as regional, 29 as local, and 11 as basic. Everglades Airpark (X01) is unclassified in the NPIAS. The remaining 20 of the 120 airports are privately owned airports or publicly-owned public-use airports not classified in the NPIAS.

The Study also considers eleven military airports shown in Figure 1-4: Naval Air Station Jacksonville (NAS Jacksonville), Naval Station Mayport (NS Mayport), Eglin Air Force Base (Eglin AFB), Hurlburt Field, Naval

⁶ General Aviation Airports: A National Asset. (Asset 1). 2012. FAA. Note that Asset 1 establishes the specific criteria for each of the GA designations.



Air Station Pensacola (NAS Pensacola), Naval Air Station Whiting Field (NAS Whiting Field), Tyndall Air Force Base (Tyndall AFB), Patrick Air Force Base (Patrick AFB), Homestead Air Reserve Base (Homestead ARB), Naval Air Station Key West (NAS Key West), and MacDill Air Force Base (MacDill AFB).

Figure 1-2. Florida's Public-Use Airports

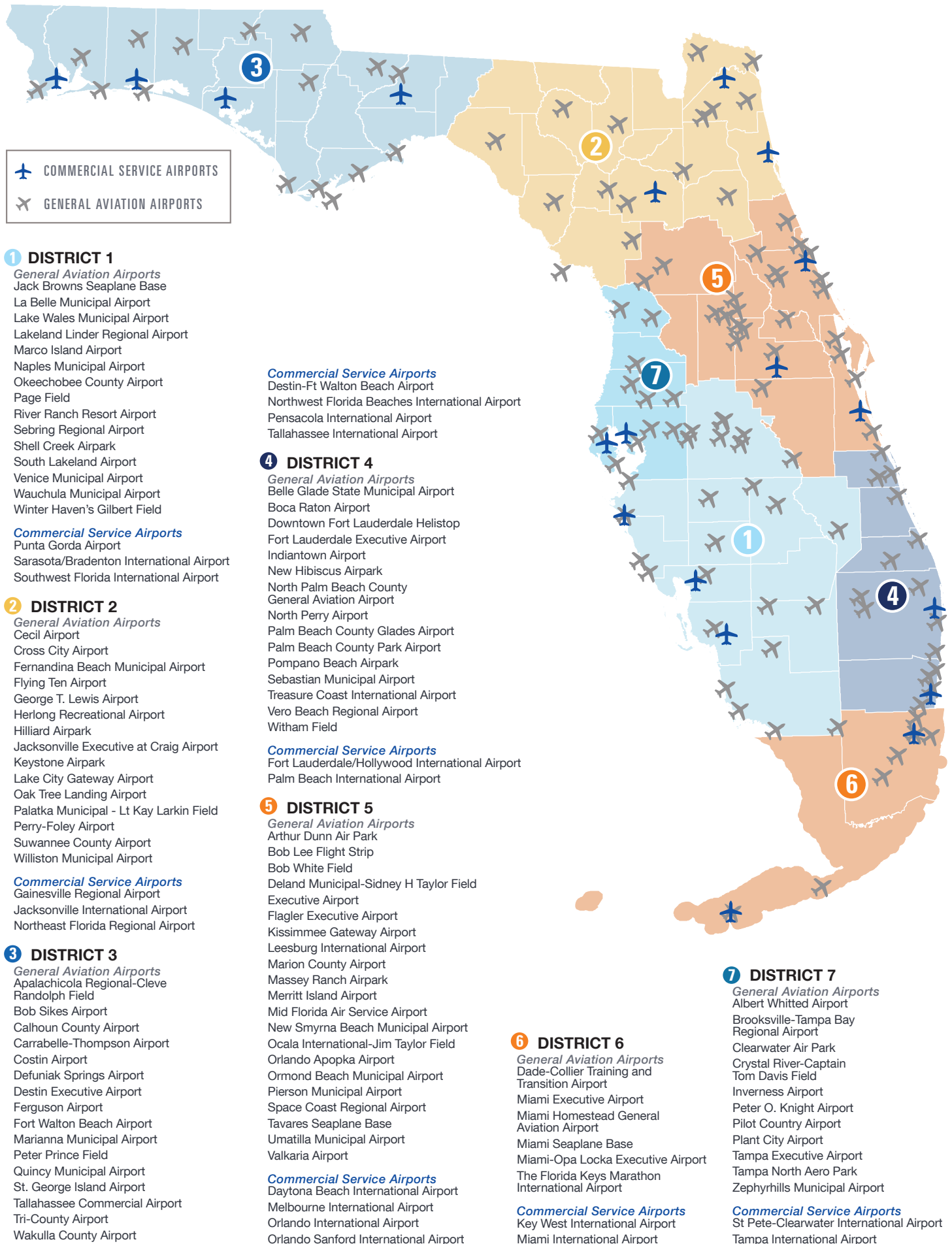
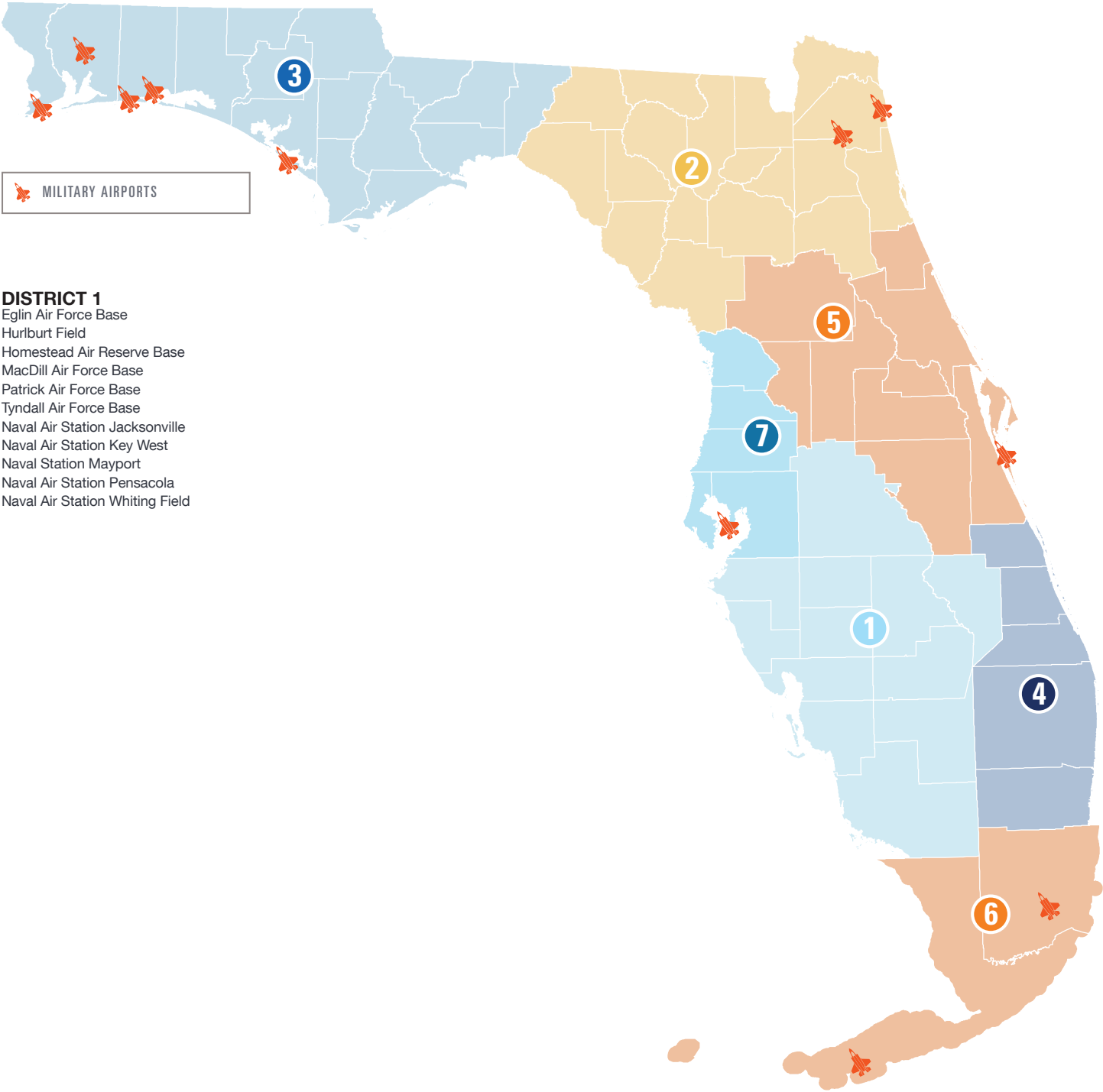


Figure 1-3. Florida's Military Airports



1.5 Study Conventions

Study assumptions and limitations include:

- This Study is the fourth iteration of FDOT’s Statewide Aviation EIS. FDOT updated the Study methodology and terminology for this 2019 iteration. Readers should be cautious when comparing results from previous studies to this Study to ensure they are comparing appropriate values. The Study Terminology subsection below provides a crosswalk between the past and current terminology, so readers can better understand how impacts have been recategorized and named. Industry reliance, air cargo, and aviation businesses should never be compared because the conservative approach taken to estimate impacts is entirely different from previous studies.
- Results of two standalone EISs are included in tables and charts that present statewide and FDOT District results. These studies are as follows:
 - The Miami-Dade Aviation Department conducted the “The Economic Impacts of Miami International Airport and the GA Airports within the Miami-Dade County Airport System” (Martin and Associates 2017) in 2017. This EIS includes Miami International Airport (MIA), Dade-Collier Training and Transition Airport (TNT), Homestead General Aviation Airport (X51), Miami Executive Airport (TMB), and Miami-Opa Locka Executive Airport (OPF).
 - Melbourne International Airport (MLB) completed “Melbourne International Airport, 2015 Economic Impact Study” (Florida Institute of Technology, College of Aeronautics) in 2015. The results of this study were only used to evaluate on-airport economic impacts.
- The Study presents business reliance at a statewide level. To be conservative, FDOT limited the analysis to companies identified by airport administration.
- Employment counts are based on head count, not full-time equivalent (FTE). The IMPLAN model is based on head count.
- All final totals for impacts were rounded to the nearest thousand.⁷ By rounding to the closest thousand-dollar unit, the study enhances maximum reliability and avoids misleading readers in giving the appearance of more accuracy than warranted by the data.⁸

1.5.1 Study Terminology

The FDOT updated the Study methodology based on industry changes and trends. Previous versions of the EIS used different terminology to communicate results. Table 1-1 is a crosswalk that translates former

⁷ Dollars presented in the tables throughout this report are rounded to the nearest thousand. As a result, columns and rows may not add up due to this rounding.

⁸ False precision carries with it an implication of high accuracy, which is not necessarily true. As conveyed in the text of the report, for example, “payroll” and “output,” as well as spin-off effects, are based on state averages by industry in Florida. As averages, they do not necessarily convey the exact wages or sales by airport tenants or that are generated through multiplier effects, which may be higher or lower than industry averages at individual business establishments.



terminology to current terms. Previous versions also grouped impacts differently. Table 1-2 is a crosswalk that translates impact categories from the 2014 Study to the 2019 Study.

Table 1-1. Term Crosswalk

	2014	2019
Types of Impacts	Jobs	Jobs
	Payroll	Payroll
	Output	Output
Measures of Impacts	Direct	Direct
	Indirect	Supplier Purchases
	Induced	Employee Spending

Source: Kimley-Horn. 2019.

Table 1-2. Impact Category Crosswalk

IMPACT CATEGORIES	
2014	2019
Airports Construction Federal Aviation Administration	On-Airport Activity
Visitors	Visitor Spending
Aviation Businesses Air Cargo*	Industry Reliance
Military	Military Spending
Aviation Education	Aviation Related Education (impacts captured in on-airport activity)

*Note: FDOT Aviation and Spaceports Office published the 2016 Florida Air Cargo Study. Therefore, the 2019 Study does not include air cargo. Source: Kimley-Horn. 2019.



1.6 Report Organization

The remaining report sections are presented as follows:

- **Section 2. Summary of Findings:** Describes in detail statewide and FDOT District results
- **Section 3. Approach Overview:** Summarizes the Study methodology
- **Section 4. Introduction to Impacts:** Introduces the subsequent sections
- **Section 5. On-Airport Activity:** Describes the economic impacts of airport administration, business tenants, and capital improvements
- **Section 6. Visitor Spending:** Describes the economic impact of out-of-state visitor spending
- **Section 7. Industry Reliance:** Analyzes the surveys gathered from businesses that use aviation for air transportation or delivery services
- **Section 8. Military Spending:** Summarizes the impacts of major military airports in terms of employment, payroll, and capital expenditures
- **Section 9. Aviation Related Education:** Describes the impact that major aviation-related institutions and flight training businesses have on Florida's economy
- **Section 10. Appendices:**
 - Appendix A: Economic Impacts by Airport
 - Appendix B: Economic Impacts by FDOT District
 - Appendix C: Case Studies
 - Appendix D: Military Aviation Analysis
 - Appendix E: Study Methodology
 - Appendix F: Definitions
 - Appendix G: Survey Instruments



2. Summary of Findings

Economic impacts help communicate the size or amount of change that occurs within an economy. The economic contributions of Florida's civilian public-use and military airports is based on the activity of airport administration, on-airport businesses, businesses serving out-of-state airport visitors, capital expenditures on airport construction, military spending, and aviation-reliant businesses. These activities generate further economic activity in the form of orders to suppliers (i.e., indirect impacts or supplier purchases) and output created when workers spend income on consumer purchases (i.e., induced impacts or employee spending). This Study measures the economic impact of these activities using three metrics:

Florida's dynamic airports represent a vital opportunity for future economic growth.

- **Output:** Total economic activity and measures the value of goods, services, and capital expenditures. Output is either total sales and capital expenditures for businesses, or the sum of payroll, operating expenses, and capital expenditures for government entities.
- **Payroll:** Total annual wages, salaries, and benefits paid to all workers
- **Jobs:** Number of employed people

The Study quantified the economic impact of Florida's aviation industry in 2017 at \$174,843,568,000 (rounded to \$175 billion) — a 15 percent increase from the 2014 Study.

Aviation-related activity throughout Florida supported over **1.4 MILLION JOBS** and generated **\$60 BILLION IN PAYROLL** during 2017. Table 2-1 summarizes statewide totals from this and the 2014 Study, as well as growth since 2014.

Table 2-1. Statewide Aviation Economic Impact

Economic Measure	2014 EIS (2014 \$)	2019 EIS (2017 \$)	Percent Change (%)
Output	\$143,969,329,000	\$174,843,568,000	15%
Payroll	\$44,502,322,000	\$60,186,268,000	29%
Jobs	1,321,000	1,412,000	7%

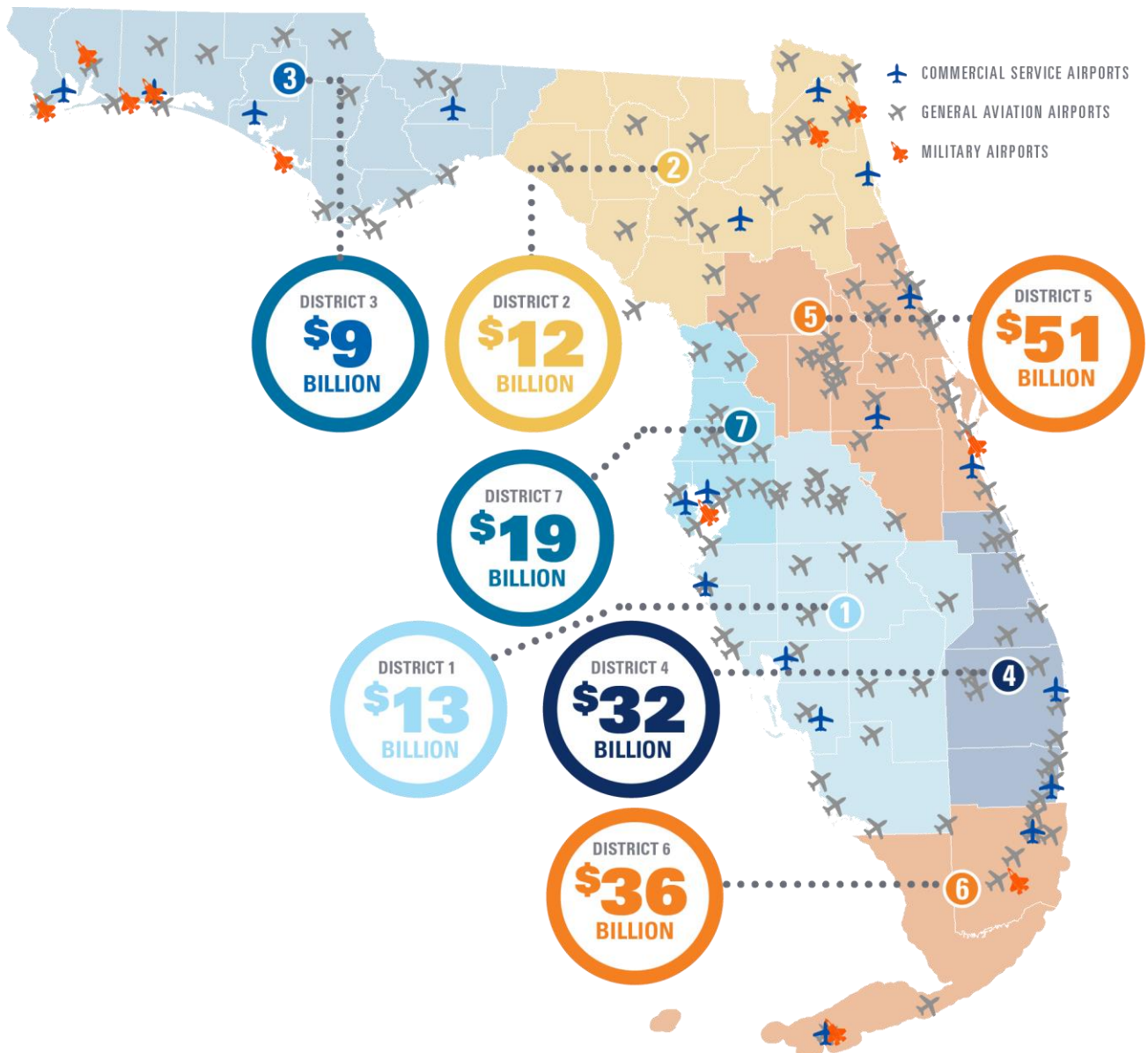
Notes: The CPI inflation calculator was used to normalize 2014 dollars to 2017 dollars before calculating percent change. Statewide output in the table does not include an air cargo analysis or statewide business reliance analysis like the 2014 Study. This results in a very conservative industry reliance analysis. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.



2.1 FDOT District Results

District 5 and District 6 generate the most economic activity in Florida due to the presence of Orlando International Airport (MCO) and Miami International Airport (MIA) (respectively, both large hub airports). District 4 and District 7, home to Fort Lauderdale-Hollywood International Airport (FLL) and Tampa International Airport (TPA), respectively, generate the next highest amount of economic activity. Figure 2-1 presents the total impact by FDOT District in terms of output.

Figure 2-1. Total Output by FDOT District



Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model. Figure does not include industry reliance impacts.



Table 2-2 summarizes total output for each impact category by FDOT District. Later sections of this report describe impact categories in detail. This Study presents industry reliance impacts at a statewide level.⁹ In summary, District 5 generates the most on-airport activity and visitor spending impacts, while District 3 and District 2 generate the highest military spending impacts. Interestingly, military activity in District 3 generates more economic impact (\$4.9 billion or 52 percent of total output) than on-airport activity and visitor spending combined. District 6 and District 4 contribute the next highest level of on-airport activity and visitor spending impacts. However, visitor spending accounts for the highest proportion of impacts in District 1 (\$9.7 billion or 74 percent of total output) and District 7 (\$12.6 billion or 66 percent of total output).

Table 2-2. Total Output by FDOT District and Impact Category

FDOT District	On-Airport Activities (\$)	Visitor Spending (\$)	Industry Reliance	Military (\$)	Total (\$)
1	\$3,464,014,000	\$9,735,602,000	N/A	N/A	\$13,199,616,000
2	\$7,044,109,000	\$2,444,984,000	N/A	\$2,469,447,000	\$11,958,540,000
3	\$2,073,727,000	\$2,450,817,000	N/A	\$4,893,403,000	\$9,417,946,000
4	\$13,189,292,000	\$18,859,906,000	N/A	N/A	\$32,049,197,000
5	\$20,528,246,000	\$29,224,709,000	N/A	\$850,499,000	\$50,603,454,000
6	\$19,901,216,000	\$15,455,223,000	N/A	\$583,953,000	\$35,940,392,000
7	\$5,813,602,000	\$12,561,293,000	N/A	\$1,018,478,000	\$19,393,374,000
Total	\$72,014,206,000	\$90,732,534,000	\$2,281,049,000	\$9,815,780,000	\$174,843,568,000

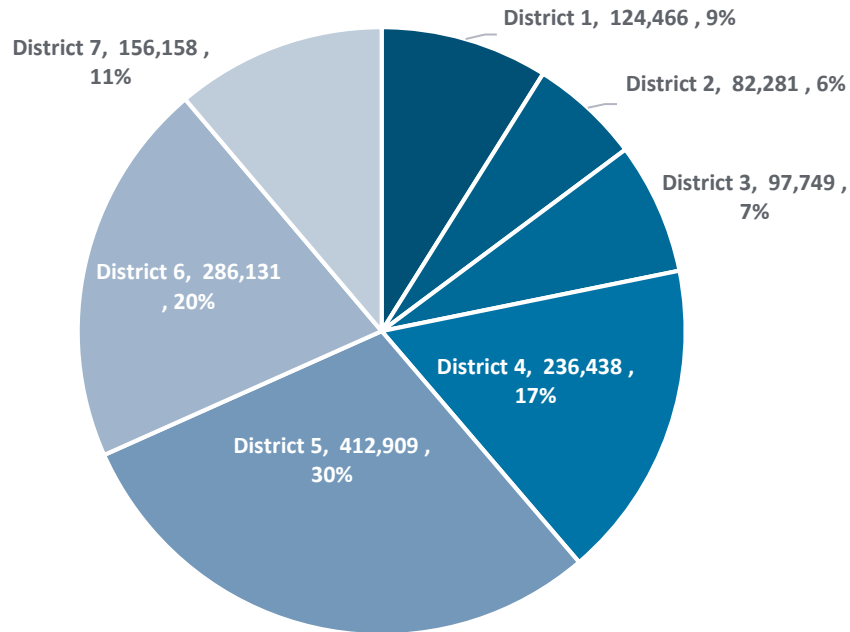
Notes: Totals may not add due to rounding. All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Like output, Figure 2-2 shows that District 5 and District 6 support the most jobs (50 percent combined), followed by District 4 and District 7 (27 percent combined). This trend continues with payroll, as shown in Figure 2-3.

⁹ The Study presents industry reliance results at the statewide level for two reasons: 1) businesses did not indicate their name or location in the survey to maintain anonymity; and 2) it is not appropriate to extrapolate survey results to the entire state because the sample size is not large enough. This also ensures a conservative analysis.

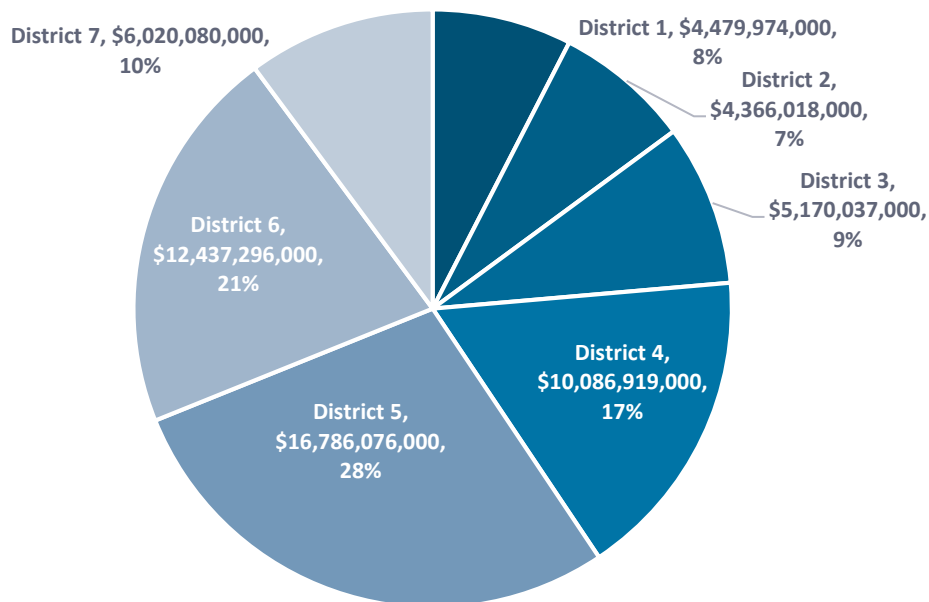


Figure 2-2. Total Employment by FDOT District



Note: Figure does not include jobs associated with industry reliance. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Figure 2-3. Total Payroll by FDOT District



Notes: All values presented in 2017 dollars. Figure does not include payroll associated with industry reliance. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

2.2 On-Airport Activity and Visitor Spending Summary

The majority contribution of Florida's public-use airports to the state economy is owed to on-airport activity and visitor spending.¹⁰ Within Florida, over **746,000 PEOPLE** were directly employed either on-airport (by an airport, by construction companies that work on an airport, or by businesses on an airport) or at businesses that provide goods and services to out-of-state visitors (visitor spending). These employees received nearly **\$27 BILLION IN PAYROLL** and generated nearly **\$100 BILLION IN OUTPUT**, as shown in Table 2-3. Including the additional economic activities generated through multiplier effects, the total economic contributions of on-airport activity and visitor spending supported nearly **1,288,000 JOBS, \$52.8 BILLION IN PAYROLL, AND \$162.7 BILLION IN OUTPUT**. **These impacts accounted for about 10 percent of the Florida economy, including 11 percent of the state's job base, 10 percent of output, and nine percent of payroll in 2017.**¹¹

Table 2-3. Statewide Economic Contribution of On-Airport Activity and Visitor Spending

Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
Direct Impacts	746,490	\$26,516,225,000	\$99,567,225,000
Multiplier Impacts	541,470	\$26,248,696,000	\$63,179,515,000
Total Impacts	1,287,960	\$52,764,920,000	\$162,746,740,000
Florida Economy (All industries)	11,556,312	\$557,676,406,000	\$1,629,623,818,000
Percent of Florida Economy	11%	9%	10%

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; U.S. Bureau of Economic Analysis (BEA); Bureau of Labor Statistics (BLS); Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Table 2-4 presents the economic contributions of on-airport activity and visitor spending by FDOT District. The table summarizes total impacts within each FDOT District, as well as impacts that occur when multiplier effects cross FDOT District boundaries (i.e., All Regions). District 5, District 6, District 4, and District 7 have the largest impacts in the state based on both total output and jobs. These FDOT Districts are home to the four large hub airports in Florida (Fort Lauderdale-Hollywood International Airport [FLL] in District 4, Miami International Airport [MIA] in District 6, Orlando International Airport [MCO] in District 5, and Tampa International Airport [TPA] in District 7). The FDOT Districts with the smallest airport economic footprints are District 3, District 2, and District 1. The table also shows that most jobs (52 percent) are in District 5 and District 6.

¹⁰ This section presents information related to public-use airports only. The Military Spending section discusses on-airport activity at military airports.

¹¹ Sources for the Florida economy are the U.S. BEA for 2017 total jobs and payroll, the BLS, and other federal agencies aggregated by IMPLAN for 2017 output.

Table 2-4. Total Economic Contribution of On-Airport Activity and Visitor Spending by FDOT District - Commercial Service and General Aviation Airports

FDOT District	Jobs (no.)	Payroll (\$)	Output (\$)
1	112,550	\$3,858,210,000	\$11,140,036,000
2	47,994	\$2,223,361,000	\$8,318,173,000
3	32,951	\$1,076,136,000	\$3,751,214,000
4	218,506	\$9,178,332,000	\$28,970,152,000
5	384,814	\$15,400,568,000	\$46,169,875,000
6	279,192	\$12,128,122,000	\$35,236,976,000
7	144,595	\$5,438,871,000	\$17,222,257,000
All Regions	67,358	\$3,461,321,000	\$11,938,057,000
Total	1,287,960	\$52,764,921,000	\$162,746,740,000

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

2.2.1 Impacts of Multiplier Effects

This section describes how multiplier effects associated with on-airport activity and visitor spending reverberate throughout the state economy. Multiplier effects are made up of two streams of revenues:

- **Supplier purchases:** Circulation of dollars generated by the purchase of goods/services by direct businesses (businesses that generate direct impacts) from other Florida businesses
- **Employee spending:** Household spending from earned payroll

Except for tables and charts that show statewide and FDOT District totals, the analyses presented in this section do not include Miami International Airport (MIA), Dade-Collier Training and Transition Airport (TNT), Homestead General Aviation Airport (X51), Miami Executive Airport (TMB), Miami-Opa Locka Executive Airport (OPF), and Melbourne International Airport (MLB) because the airports' individual economic impact studies did not provide the necessary level of detail for inclusion.

Table 2-5 shows that multiplier effects generated by airports in Florida accounted for 42 percent of total jobs, 50 percent of payroll, and 39 percent of total output.

Table 2-5. Multiplier Effects of On-Airport Activity and Visitor Spending Impacts

Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
Direct	746,490	\$26,516,225,000	\$99,567,225,000
Supplier Purchases / Employee Spending	541,470	\$26,248,696,000	\$63,179,515,000
Total	1,287,960	\$52,764,920,000	\$162,746,740,000
Supplier Purchases / Employee Spending Percent of Total	42%	50%	39%

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

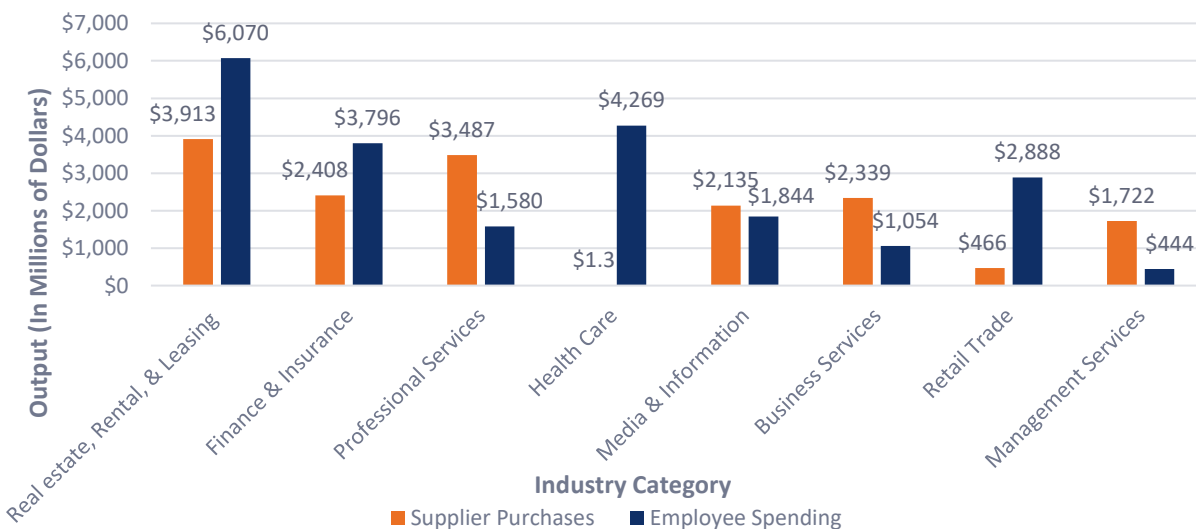
Many different types of industries benefit from the circulation of these dollars, as shown in Figure 2-4. The major industries supported by purchases from on-airport or hospitality-oriented businesses (supplier purchases) include:

- **Real Estate, Rental, & Leasing:** Rental and lease payments for office space, automotive rental & leasing, and machinery/equipment rental & leasing
- **Finance & Insurance:** Banking services and insurance payments
- **Service Sectors:** Professional, media, business, and management

The major industries supported by purchases by employees working on-airport or within the hospitality industry (employee spending) include:

- **Real Estate, Rental, & Leasing:** Rental or mortgage payments, automotive rental & leasing, and general goods rental & leasing
- **Finance & Insurance:** Banking and car/housing/other insurance payments
- **Health Care:** Doctor visits and other medical-related services
- **Retail Trade:** Food, clothing, and other retail purchases

Figure 2-4. Industries Supported by Florida Airports from Supplier Purchases and Employee Spending



Note: All values presented in 2017 dollars. Source: Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Over **427,000 JOBS** are supported and **\$59 BILLION DOLLARS** are generated by businesses that provide goods and services to the on-airport and tourism-oriented businesses that support aviation and employees who work for these businesses.¹²

¹² Numbers do not include supplier purchases or employee spending for Miami airports within the Miami-Dade County Airport System or Melbourne International Airport. Multiplier impacts for these airports were not included because of the different methodologies employed by the airports individual studies and the different ways that findings are presented in the studies. Information for these airports can be found in "The Economic Impacts of Miami International Airport and the General Aviation



Table 2-6 displays how the economic impacts from the circulation of direct sales vary across Florida industries according to each multiplier stream (supplier purchases and employee spending). The table shows the key industries in Florida that sell goods and services to airports, on-airport tenants, and to hospitality providers (left column, supplier purchases) and households (right column, employee spending).

Table 2-6 shows that jobs and revenues in Florida generated by the multiplier effects associated with on-airport activity and visitor spending are different depending on if they are generated by supplier purchases or employee spending. For output, the leading industry for both types of multiplier effects are Real Estate, Rental & Leasing, with impacts significantly more pronounced from employee spending than from supplier purchases. This trend indicates Florida's employees may spend the largest portion of their income on housing.

For jobs generated, the Health Care industry is the largest sector supported by employee spending, but impacts generated from supplier purchases are minimal. The largest job generation realized from supplier purchases are in Business Services and Professional Services. Both sectors are also impacted by employee spending, but by a far lower amount.

Restaurants and Retail Trade are far more stimulated from employee spending than from supplier purchases. The opposite is true for Transportation Support services, Couriers and Postal, and Management services, which benefit more from supplier purchases than from employee spending.

Airports within the Miami-Dade County Airport System (2017)" prepared by Martin Associates or "Melbourne International Airport, 2015 Economic Impact Study (2015)" prepared by the Florida Institute of Technology, College of Aeronautics.

Table 2-6. Industries Supported by Florida Airports from Supplier Purchases and Employee Spending (in order by Output)

Supplier Purchases				Employee Spending			
Industry Description	Jobs (no.)	Output (\$)	Bus. Sales % of Total	Industry Description	Jobs (no.)	Output (\$)	Bus. Sales % of Total
Real Estate, Rental, & Leasing	19,754	\$3,913,181,000	14%	Real Estate, Rental, & Leasing	15,324	\$6,070,246,000	19%
Professional Services	27,324	\$3,487,334,000	13%	Health Care	40,222	\$4,269,001,000	14%
Finance & Insurance	11,882	\$2,407,837,000	9%	Finance & Insurance	18,362	\$3,796,072,000	12%
Media & Information	5,374	\$2,339,388,000	8%	Retail Trade	35,159	\$2,887,833,000	9%
Business Services	33,240	\$2,135,345,000	8%	Media & Information	3,763	\$1,843,903,000	6%
Management Services	7,641	\$1,721,930,000	6%	Restaurants	26,176	\$1,678,197,000	5%
Wholesale Trade	6,451	\$1,531,309,000	5%	Professional Services	12,494	\$1,580,450,000	5%
Utilities	1,069	\$1,502,214,000	5%	Wholesale Trade	6,093	\$1,420,237,000	5%
Transportation Support	9,349	\$1,337,827,000	5%	Other Services	22,544	\$1,344,007,000	4%
Couriers & Postal	10,385	\$1,066,979,000	4%	Business Services	15,735	\$1,054,146,000	3%
Other Services	7,374	\$709,035,000	3%	Utilities	636	\$739,627,000	2%
Retail Trade	5,943	\$666,566,000	2%	Management Services	1,977	\$443,747,000	1%
Restaurants	12,745	\$466,285,000	2%	Couriers & Postal	1,571	\$161,835,000	1%
Health Care	13	\$1,266,000	0%	Transportation Support	914	\$149,910,000	0%
All Others	30,103	\$4,567,300,000	16%	All Others	37,665	\$3,765,837,000	12%
Total Supplier Purchases	188,645	\$27,852,530,000	100%	Total Employee Spending	238,634	\$31,205,049,000	100%
Total Jobs	188,645 + 238,634 = 427,279			Total Output	\$27,852,530,000 + \$31,205,049,000 = \$59,057,579,000		

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

3. Approach Overview

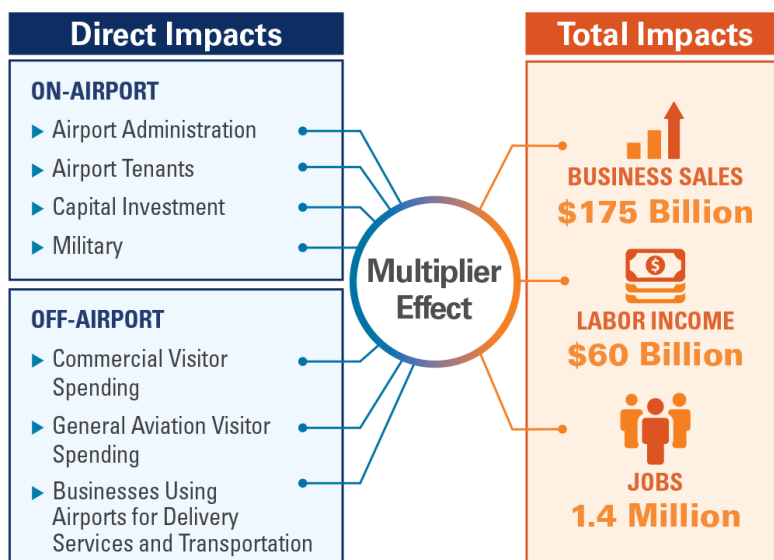
As made evident by this Study, commerce on airports and aviation-related jobs are strong economic stimuli for Florida. To understand the aviation industry's role in supporting the state's economy, the Study quantified three metrics related to economic activity: jobs, payroll, and output, defined below. Output and the portion of those sales used to pay workers (payroll) drive economic impacts.

- **Output:** The total economic activity and measures the value of goods, services, and capital expenditures. Output is either total sales and capital expenditures for businesses, or the sum of payroll, operating expenses, and capital expenditures for government entities.
- **Payroll:** The total annual wages, salaries, and benefits paid to all workers.
- **Jobs:** The total number of employed people. Jobs are based on head count (not FTE) for this Study due to the use of the IMPLAN model.

To quantify the contribution of Florida's aviation system to the economy, the Study utilizes a variety of primary and secondary data sources and economic modeling techniques. This Study assembled direct impacts using primary and secondary data and used IMPLAN to generate multiplier effects. The primary data source for this EIS was a series of six surveys designed to gather information related to key economic metrics:

- Airport administration
- Business tenants on airports
- Out of state visitors traveling by air transportation (commercial service and GA)
- Businesses that own or lease aircraft
- Aviation-reliant businesses

Figure 3-1. 2019 FDOT Aviation EIS Methodology



Source: Kimley-Horn. 2019.

When necessary, industry standards from IMPLAN and other databases were used to fill primary data gaps. These primary and secondary data provide the direct impacts that drive the economic modeling effort, including direct jobs and payroll, operating expenses, capital expenditures, and total sales/revenue (where applicable) for the on-airport businesses and local government sponsors managing airport operations, as well as direct impacts related to visitor spending habits. Data were input into IMPLAN to generate the multiplier effect; resulting economic metrics include jobs, payroll, and output for direct impacts; supplier purchases, and employee spending. The following subsections summarize the Study

methodology. Appendix E: Study Methodology provides a full description of the study methodology. Figure 3-1 summarizes the methodology of the 2019 FDOT Aviation EIS.

3.1 Data Collection

Lasting nearly a year, the collection and documentation of primary data from airport managers, business tenants, visiting passengers, and businesses that depend on the aviation system was a major component of this Study. The primary data collected to conduct economic modeling are:

- **Airport administration:** Jobs, payroll, and capital expenditures
- **Airport tenants:** Jobs, payroll, type of business, gross revenues, and capital expenditures
- **Commercial service and GA passengers:** Per-person spending per trip on lodging, food, transportation, entertainment, etc., as well as place of origin
- **Aviation-reliant businesses:** Jobs, type of business, and extent of dependence on air transportation

Qualitative benefits from airport activities were also gathered to develop case studies that tell the story of how aviation is key to Florida's economy. Table 3-1 summarizes the six surveys that the FDOT Aviation and Spaceports Office used to collect information related to the activity at each public-use airport that contributes to its economic impact. FDOT sourced information for military spending impacts from DOD and the BRAC.

Table 3-1. Economic Impact Study Surveys

Survey	Description
Airport Manager Survey	Collected information related to employment; payroll; operating expenses; capital expenses; company names, contacts, and estimated employment for non-aviation businesses that are reliant on the airport; summary of any changes at the airport since 2012/2013; tenant gross sales (from lease agreements, if required and available); and non-quantifiable benefits and services.
Airport Tenant Survey	Collected information regarding on-airport employment, annual payroll, average annual capital investment into the airport, type of business, and other qualitative benefits of the airport.
Commercial Service Passenger Survey	enplaned passengers visiting from out of state at each commercial service airport including trip purpose (business or leisure); length of stay; and expenditures for lodging, meals, ground transportation, entertainment, and retail.
GA Pilot/Passenger Survey	Collected data for out-of-state visitors including the average persons (passengers and pilots) per operation, length of stay, and expenditures.
Businesses that Own/Lease Aircraft	Collected information about business services, employment, and dependence on air transportation.
Businesses that Rely on Florida Airports	Collected information about business services, employment, aviation service utilization, airport relied upon, and business reliance on the aviation system.

Note: Survey templates can be found in Appendix G: Survey Instruments. Source: Kimley-Horn. 2018.

The data collection and organization effort began by distributing the Airport Manager Survey to each airport manager via hard copy and email. The FDOT conducted in-person meetings with representatives of all 120 public-use airports in the study to review and finalize managers' responses to the survey. During site visits, the FDOT visited on-airport businesses to conduct the Airport Tenant Survey and post the GA Pilot/Passenger Survey at frequently visited locations at GA airports. Business tenants unavailable at the time of site visit received an email to complete the Airport Tenant Survey online or through email by returning a fillable PDF. Off-airport businesses were contacted by email and phone after the site visit to complete the Businesses that Rely on Florida Airports Survey or the Businesses that Own/Lease Aircraft Survey.

Before finalizing survey data, three follow-up emails with the survey link were sent to on-airport business tenants and off-airport businesses that had not yet completed the survey. Data were logged in a Microsoft Excel database, reviewed for consistent terminology, and reconciled to identify errors and double counts, which were resolved or removed, respectively.

When airports and business tenants did not provide all information necessary for analysis, FDOT used standard databases to supplement the survey data. These databases and the information obtained from them included:

- **ESRI Community Analyst:** Tenant employment
- **Reference USA:** Tenant employment
- **IMPLAN:** payroll and output per employee for business tenants

Once data gaps were addressed, the airports reviewed and confirmed employment data prior to economic modeling. Table 3-2 summarizes the total number of surveys collected during site visits and follow-up efforts. Additional details regarding the Commercial Service Passenger and GA Pilot/Passenger surveys are provided below.

Table 3-2. Survey Count Summary

Survey	Total Responses (no.)
Airport Manager Survey	120
Airport Tenant Survey	3,044*
Commercial Service Passenger Survey	5,431
GA Pilot/Passenger Survey	32
Businesses that Own/Lease Aircraft	36
Businesses that Rely on Florida Airports	87

Notes: *Captured by either the Airport Manager Survey Addendum or Airport Tenant Survey. Table does not include Miami International Airport (MIA), Dade-Collier Training and Transition Airport (TNT), Homestead General Aviation Airport (X51), Miami Executive Airport (TMB), Miami-Opa Locka Executive Airport (OPF) and Melbourne International Airport (MLB). Source: Kimley-Horn. 2018.

The Commercial Service Passenger Survey was administered to departing out-of-state passengers at 17 of Florida's commercial service airports to collect information related to visitor spending.¹³ A statistically significant number of surveys were collected based on the number of enplanements at each airport, which were then further broken down to personal or business travel and domestic or international travel. Table 3-3 summarizes the total number of surveys collected at each commercial service airport. These data were supplemented with the total number of out-of-state visitors to Florida sourced from Airline Data Products, Inc. (a secondary data source) to determine visitor spending impacts.

Table 3-3. Commercial Service Passenger Survey Counts by Airport

Airport	Associated City	Passenger Counts (no.)				Total
		Domestic Business	Domestic Personal	International Business	International Personal	
Daytona Beach International	Daytona Beach	9	65	0	7	81
Fort Lauderdale-Hollywood International Airport	Fort Lauderdale/Hollywood	6	78	1	15	100
Southwest Florida International Airport	Fort Myers	11	12	2	0	25
Gainesville Regional Airport	Gainesville	25	19	0	2	46
Jacksonville International Airport	Jacksonville	73	410	47	383	913
Key West International Airport	Key West	82	20	2	4	108
Orlando International	Orlando	20	236	32	207	495
Orlando-Sanford International	Orlando	2	45	0	7	54
Northwest Florida Beaches Airport	Panama City	23	172	43	445	683
Pensacola International Airport	Pensacola	313	430	65	175	983
Punta Gorda Airport	Punta Gorda	1	30	1	0	32

¹³ FDOT did not conduct commercial service passenger surveys at Miami International Airport (MIA), Northeast Florida Regional Airport (SGJ), and Melbourne International Airport (MLB).



Airport	Associated City	Passenger Counts (no.)				
		Domestic Business	Domestic Personal	International Business	International Personal	Total
Sarasota/Bradenton International Airport	Sarasota/Bradenton	36	70	4	15	125
St. Pete-Clearwater International Airport	St. Petersburg/Clearwater	65	39	2	6	112
Tallahassee International Airport	Tallahassee	4	45	0	0	49
Tampa International Airport	Tampa	91	665	24	284	1,064
Destin- Fort Walton Beach Airport	Valparaiso	55	253	0	28	336
Palm Beach International	West Palm Beach	90	88	2	1	181
Total		906	2,677	225	1,579	5,387

Source: Kimley-Horn. 2019.

The FDOT collected 31 GA Pilot/Passenger Surveys from GA airports throughout the state, as summarized in Table 3-4. Survey respondents completed paper surveys located in terminals or used a Survey Monkey link to complete the survey online. States of origin for visiting GA pilots and passengers included California, Delaware, Georgia, Idaho, Illinois, Michigan, Minnesota, Mississippi, North Carolina, New Hampshire, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee, and Texas.

Table 3-4. General Aviation Pilot / Passenger Survey Counts by Airport

Airport	Associated City	Survey Count (no.)
Boca Raton Airport	Boca Raton	6
Fernandina Beach Municipal Airport	Fernandina Beach	4
Page Field	Fort Myers	7
Jacksonville Executive at Craig Airport	Jacksonville	2
Herlong Recreational Airport	Jacksonville	1
Flagler Executive Airport	Palm Coast	1
Albert Whitted Airport	St. Petersburg	8
Umatilla Municipal Airport	Umatilla	1
Winter Haven's Gilbert Field	Winter Haven	1



Total 31

Source: Kimley-Horn. 2019.

3.2 Economic Modeling Process

IMPLAN is a software that combines databases, economic factors, multipliers, and demographic statistics with a highly refined modeling system to help gain insight into an industry's contributions to a region.¹⁴ FDOT used IMPLAN in two ways:

- Fill data gaps in direct impacts
- Derive multiplier impacts (i.e. estimate supplier purchases and employee spending impacts)

Each of these uses is described in further detail in the sections that follow.

3.2.1 Data Gaps

IMPLAN was used to fill data gaps when airport managers and tenants provided employment numbers and business type for direct airport employees and on-airport business tenants but did not provide information for payroll and output. Similarly, IMPLAN was used to estimate jobs and payroll supported by visitor spending while in Florida. FDOT used payroll per employee and output per employee standard values by region and type of business to fill the data gaps. This process ensures that the Study captures the full range of economic activity associated with Study airports regardless of survey response rates.

3.2.2 Multiplier Impacts

Economic impacts in this Study include direct impacts and multiplier effects (i.e., indirect and induced impacts):

- **Direct impacts:** Economic activity associated with the provision of aviation services, businesses that facilitate visitor spending, or the activity of aviation-reliant businesses
- **Supplier purchases (indirect impacts):** Occur when directly affected businesses use a portion of direct business revenue to purchase goods and services from other Florida businesses
- **Employee spending (induced impacts):** Occur when workers who earn income due to direct sales and supplier sales spend their wages in Florida to purchase household goods and services such as groceries, rent, entertainment, and other goods and services

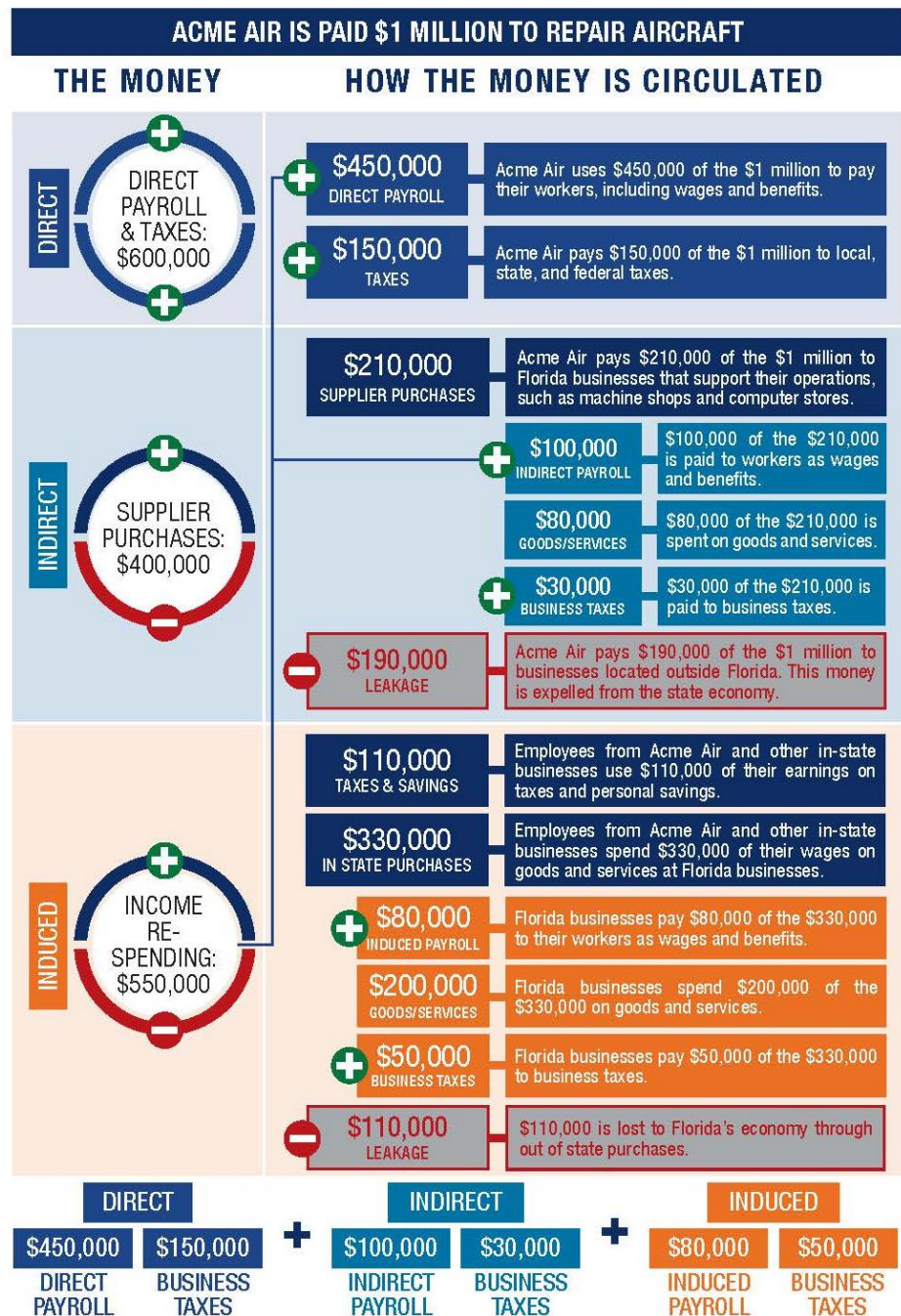
¹⁴ IMPLAN. Accessed in 2019 at <http://blog.implan.com/what-is-implan>.



Direct impacts result in additional economic activity generated by additional rounds of spending. For example, on-airport and hospitality-related industries make purchases from other Florida businesses to supply goods and services. A restaurant may purchase produce, an avionics company may buy aircraft parts, and many industries require legal and accounting services. Additionally, employees spend their income on food, clothing, transportation, retail, and other purchases.

Known as the multiplier effects, these types of secondary economic activities highlight the broad economic contributions of Florida airports. Impacts exceed the initial activity occurring on-airport property or spending within hospitality-related businesses due to the circulation of dollars generated from direct activities. Figure 3-2 provides an example of how an on-airport direct impact generates multiplier effects throughout the economy.

Figure 3-2. Multiplier Effects Explained

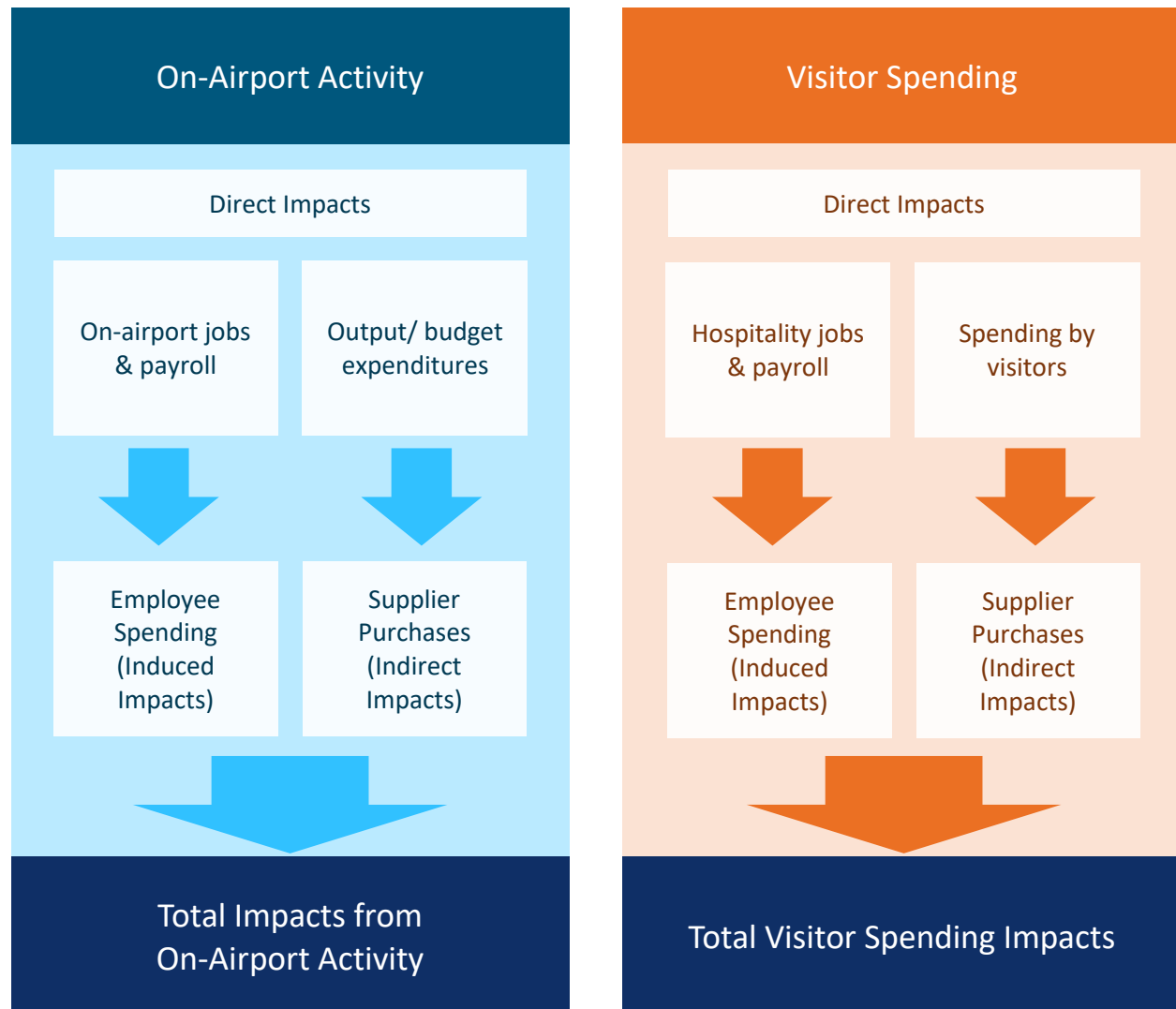


Source: Kimley-Horn. 2019.



Direct impacts are input into IMPLAN to estimate supplier purchases (indirect impacts) and employee spending (induced impacts), helping demonstrate how Florida’s airports are a catalyst for economic activity throughout the state. Figure 3-3 summarizes the modeling work flow, from direct impacts to total impacts. See Appendix E: Study Methodology for a full description of direct impacts and multiplier effects.

Figure 3-3. Modeling Flow Chart





4. Introduction to Impacts

The following sections present the contribution of Florida's airports to the state economy in 2017 through five main generators of economic activity:

- **On-Airport Activity:** Airports function as regional job centers by providing services to airlines, airlines passengers, and GA pilots and their aircraft, as well as by providing other support and facilities services.¹⁵ Airports also support construction through capital expenditures.
- **Visitor Spending:** Airports serve as gateways for out-of-state-tourists and business travelers. These commercial service and GA visitors spend money on lodging, food, retail, entertainment, and local transportation and support the Florida hospitality industry.
- **Aviation Business Reliance:** Airports connect Florida's industries to markets across the United States and around the world. Businesses rely on airports for client and staff travel, air cargo shipments for commodity inputs to production, and air delivery of finished goods to out-of-state customers.
- **Military Spending:** Military airfields generate activity in the form of expenditures on capital improvements and payroll.
- **Aviation-Related Education:** Flight schools, aviation institutions, and other aviation-related training programs produce a technically capable workforce for the fast-growing aviation industry. These businesses and schools employ people throughout the state and attract students from around the world. Note that economic impacts are captured in on-airport activity; the section below is a qualitative discussion on the value of aviation-related educational institutions.

Table 4-1 summarizes the economic contribution generated by Florida's airports by impact category. The following sections describe each generator of economic impacts (i.e. on-airport activity and visitor spending) and summarize impacts at the FDOT District and statewide levels. All monetary values are reported in 2017 dollars.

¹⁵ Businesses on-airport also provide other support services such as facilities support for airport building maintenance.



Table 4-1. Summary of Economic Impacts by Category

Category	Jobs (no.)	Payroll (\$)	Output (\$)
On-Airport Activity			
Administration	61,077	\$2,956,348,000	\$7,819,837,000
Tenants	216,303	\$11,736,742,000	\$39,887,131,000
Capital Improvements – Tenants	623	\$27,849,000	\$87,322,000
Capital Improvements – Airports	13,763	\$647,632,000	\$1,980,057,000
MIA, TNT, TMB, X51, OPF, and MLB	102,113	\$6,754,862,000	\$22,239,859,000
Total	393,879	22,123,433,000	72,014,206,000
Visitor Spending			
Commercial Service	669,032	\$23,280,761,000	\$71,751,772,000
General Aviation	42,063	\$1,397,427,000	\$4,271,761,000
MIA, TNT, TMB, X51, and OPF	182,986	\$5,963,300,000	\$14,709,001,000
Total	894,081	30,641,488,000	90,732,534,000
Other			
Industry Reliance	16,220	\$839,867,000	\$2,281,049,000
Military Spending	108,172	\$6,581,480,000	\$9,815,780,000
Total	1,412,353	\$60,186,268,000	\$174,843,568,000

Note: All values presented in 2017 dollars. Sources: The Economic Impacts of Miami International Airport and the GA Airports within the Miami-Dade County Airport System. 2017. Martin and Associates.; Orlando Melbourne International Airport Economic Impact Study. 2015. Florida Institute of Technology College of Aeronautics.; Okaloosa Economic Development Council; Eglin AFB 96 FSS/FSMM; Eglin AFB Public Affairs Office; Hurlburt Field Fact Sheet; Public Affairs Office; Hurlburt Field EIS; Homestead ARB Public Affairs Office; MacDill AFB Office of Public Affairs; MacDill AFB Economic Impact Analysis; Patrick AFB Economic Impact Analysis; Patrick AFB EIS; Tyndall AFB Economic Impact Analysis; Tyndall AFB EIS; NAS Whiting Field Office of Public Affairs, University of West Florida, Haas Center; Navy Region Southeast EIS, Fiscal Year 2016; NAS Jacksonville Office of Public Affairs; Navy Region Southeast EIS, Fiscal Year 2016; NS Mayport Office of Public Affairs, University of West Florida, Haas Center; NAS Key West Office of Public Affairs, University of West Florida, Haas Center; NAS Pensacola Office of Public Affairs.; EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model. EIS Surveys. 2017.

5. On-Airport Activity

Airports are economic generators because of the jobs and income created by providing air travel and related services at both commercial service and GA airports. As summarized below, economic activity on airports are classified into three main categories of services. Detailed descriptions of each of these categories are provided in the sections that follow.

- Airport Administration
 - Airport managers
 - Fixed-base operators (FBO)¹⁶
 - Contractors (serving in airport employee positions)
- On-Airport Tenants (commercial service and GA)
 - Airlines
 - Freight airlines
 - FBOs
 - Aviation support services
 - Federal government
 - Security (including the Transportation Security Administration [TSA])
 - Airport building maintenance
 - Ground transportation and parking
 - Concessions (i.e., retail and food/beverage)
 - Aerospace manufacturing
 - Non-aviation-related tenants
 - Construction companies¹⁷
- Capital Improvements
 - Tenant construction
 - Airport infrastructure improvements

Please note, notwithstanding Figure 5-5, the tables and figures throughout this section do not include Miami International Airport (MIA), Dade-Collier Training and Transition Airport (TNT), Homestead General Aviation Airport (X51), Miami Executive Airport (TMB), Miami-Opa Locka Executive Airport (OPF), or Melbourne International Airport (MLB). The Military Spending section captures on-airport military impacts.

5.1 Airport Administration

Airport administration includes airport managers and other employees responsible for the daily operations of an airport. Airport managers ensure compliance with state and federal regulations, oversee safety procedures and protocols, direct airport security, monitor grounds maintenance, supervise terminal activities, and manage airport development. For smaller GA airports, the airport manager can

¹⁶ FBOs that support airport operations are included in airport administration. All other FBO businesses are considered tenants.

¹⁷ Construction companies located on-airport property are considered separately from construction companies providing tenant or airport infrastructure capital improvements.



also serve as the FBO. This service category also includes contractors hired to conduct administrative airport management or employee tasks.

Within the state of Florida, over **28,000 EMPLOYEES** were involved in airport administrative services. These employees received nearly **\$1.5 BILLION IN PAYROLL** and generated over **\$3.5 BILLION IN OUTPUT**, as shown in Table 5-1. **Including the multiplier effect generated by supplier purchases and employee spending, the total economic contribution of airport administration to the Florida economy exceeded 61,000 jobs, over \$2.9 billion in payroll, and \$7.8 billion in output.**

Table 5-1. Airport Administration Impacts for State of Florida

Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
Direct	28,209	\$1,471,257,000	\$3,502,283,000
Supplier Purchases	15,761	\$766,374,000	\$1,996,643,000
Employee Spending	17,107	\$718,717,000	\$2,320,911,000
Total	61,077	\$2,956,348,000	\$7,819,837,000

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

5.2 On-Airport Tenants

On-airport tenants or businesses not considered part of airport administration support air travel and provide essential services to passengers, airlines, and GA operators. Florida's on-airport tenants supported nearly **93,000 EMPLOYEES** in the state. Employment fell within three primary service categories:

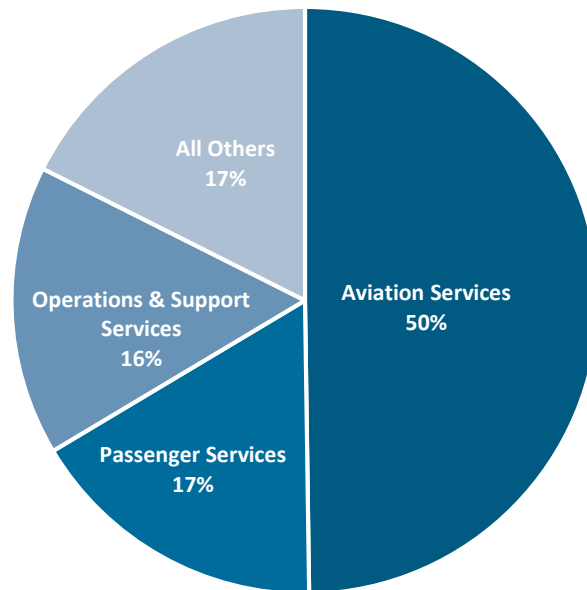
- **Aviation Services:** Airlines, air cargo, aviation support activities, and aviation manufacturing and repair
- **Passenger Services:** Food and beverage, retail, car rental, and ground transportation
- **Operations and Support Services:** Services that support airport operations,¹⁸ security, federal government (e.g., TSA), airport facility maintenance, and other on-airport businesses

As shown in Figure 5-1, 50 percent of all employment at Florida airports were involved with aviation services. Passengers services and operations and support services comprised 17 and 16 percent of on-airport tenant jobs, respectively. All other job types (e.g. wholesale trade, non-profits, financial services) comprised 17 percent of all on-airport jobs.

¹⁸ Services to businesses include real estate, architectural and engineering, employment, landscaping, consulting, and data processing services.



Figure 5-1. On-Airport Tenant Employment by Type of Service



Source: EIS Surveys. 2017. Kimley-Horn.

Table 5-2 provides additional details on the categories of on-airport employment. **PASSENGER AVIATION, AVIATION SUPPORT SERVICES, AND AVIATION REPAIR AND MANUFACTURING** are the three most common types of tenants at Florida's airports and supported 44 percent of total employment. **CONCESSIONS** (i.e., retail stores and food and beverage restaurants) located within airport terminals support 11 percent of total on-airport employment. Services provided by **SECURITY FIRMS AND FEDERAL, STATE, AND LOCAL GOVERNMENT AGENCIES** accounted for 12 percent of total employment. Some tenant respondents did not provide any information on their business function; accordingly, 383 jobs could not be assigned to an industry type and are not included in the table below.



Table 5-2. On-Airport Tenants by Type of Industry

Tenant Classification	Jobs (no.)	Percent of Total (%)
Passenger aviation	17,731	19.1%
Aviation support services	12,487	13.4%
Aviation-related manufacturing and repair	10,701	11.5%
Services to airport operations and businesses	6,590	7.1%
Food and beverage	6,268	6.7%
Security	5,085	5.5%
State and local government	4,565	4.9%
Retail	3,699	4.0%
Car rental	2,936	3.2%
Construction companies	2,920	3.1%
Aviation education	2,840	3.1%
Freight aviation	2,497	2.7%
Manufacturing (non-aviation)	2,383	2.6%
Other	2,095	2.3%
Warehousing and distribution	2,040	2.2%
Federal government	1,919	2.1%
Military	1,304	1.4%
Facility maintenance	1,257	1.4%
Services (miscellaneous)	1,038	1.1%
Accommodations	1,029	1.1%
Services to passengers	885	1.0%
Ground transportation	660	0.7%
Total	92,928	100%

Source: EIS Surveys. 2017. Kimley-Horn.

Table 5-3 shows that on-airport tenants in Florida supported nearly **93,000 JOBS** that paid over **\$5.8 BILLION IN PAYROLL** and generated over **\$22 BILLION IN OUTPUT**. Including the multiplier effects generated by supplier purchases and employee spending, the total economic contribution of on-airport tenants in Florida supported over 216,000 jobs and generated \$11.7 billion in payroll and nearly \$40 billion in output.



Table 5-3. On-Airport Tenant Impacts for State of Florida

Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
Direct	92,928	\$5,829,170,000	\$22,044,860,000
Supplier Purchases	56,667	\$3,069,026,000	\$8,749,131,000
Employee Spending	66,708	\$2,838,546,000	\$9,093,139,000
Total	216,303	\$11,736,742,000	\$39,887,130,000

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

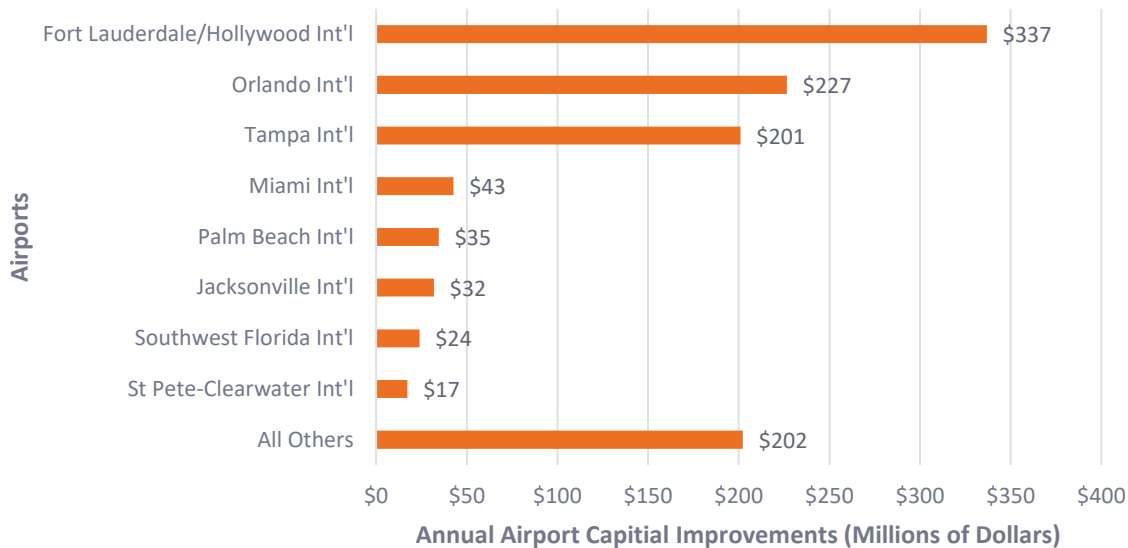
5.3 Capital Improvements

Capital improvements are required to maintain, rehabilitate, or expand runways, taxiways, hangars, and buildings to keep pace with growing demands for aviation services and to ensure modern and safe facilities as airport infrastructure ages. Tenants located inside terminals also periodically improve their stores and restaurants to upgrade facilities and meet changing customer expectations and preferences.

Capital improvements lead to temporary economic impacts based on the duration of construction activities. Accordingly, capital investments for 2014 through 2016 were averaged to smooth out any irregular spikes in construction activity and estimate an average profile of annual infrastructure investment. **DURING THE THREE-YEAR PERIOD, AN AVERAGE OF \$1 BILLION PER YEAR WAS SPENT TO IMPROVE FLORIDA'S AIRPORTS.** The top eight airports accounted for 82 percent (\$915 million) of total capital improvements during this period. All other airports completed \$202 million in capital improvements, as shown in Figure 5-2.



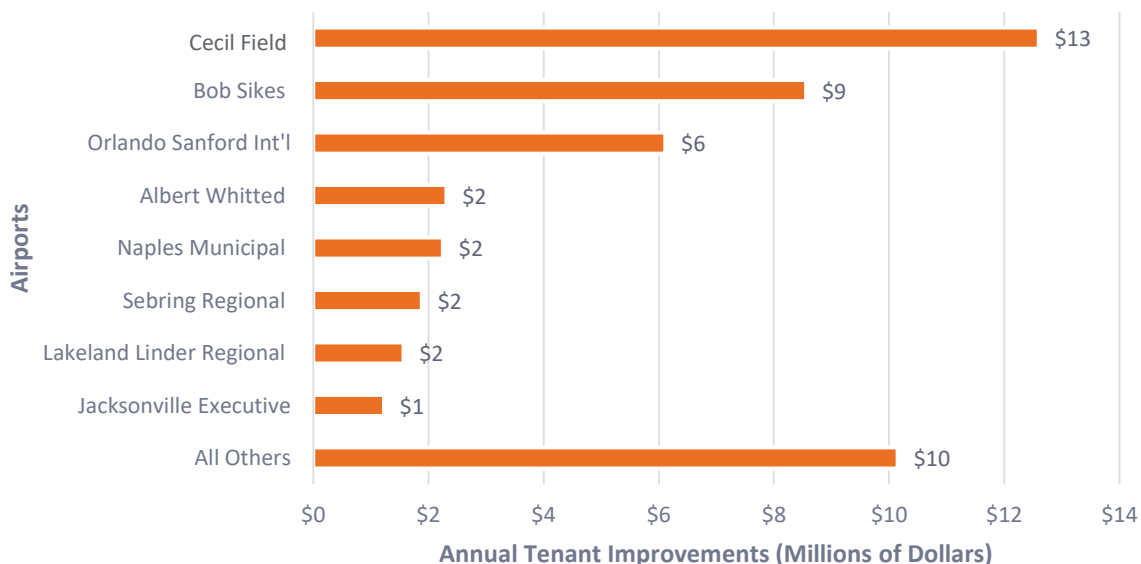
Figure 5-2. Annual Capital Improvements: Airport Infrastructure (Average 2014-2016)



Source: EIS Surveys. 2017. Kimley-Horn.

Investments in tenant improvements totaled **\$46 MILLION** in 2017 based on data collected from the Airport Tenant Survey. The top eight airports combined accounted for \$36 million (78 percent) of all tenant improvements, as shown in Figure 5-3. Tenants at the remaining airports spent \$10 on capital improvement projects.

Figure 5-3. Investments in Tenant Improvements by Airport (2017)



Notes: All values presented in 2017 dollars. Figure does not include Miami International Airport (MIA), Dade-Collier Training and Transition Airport (TNT), Miami Executive Airport (TMB), Miami-Opa Locka Executive Airport (OPF), Homestead General Aviation Airport (X51), and Melbourne International Airport (MLB). Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Overall, airport capital improvements in Florida supported nearly **14,000 JOBS**, paid **\$648 MILLION IN PAYROLL**, and generated nearly **\$2 BILLION IN OUTPUT**, as shown in Table 5-4. Tenant improvements supported over **600 JOBS** with **\$28 MILLION IN PAYROLL** and generated **\$87 MILLION IN OUTPUT**, as shown in Table 5-5.

Table 5-4. Statewide Airport Capital Improvement Impacts

Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
Direct	7,579	\$357,301,000	\$1,055,955,000
Supplier Purchases	2,554	\$134,884,000	\$427,617,000
Employee Spending	3,629	\$155,447,000	\$496,485,000
Total	13,763	\$647,632,000	\$1,980,057,000

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Table 5-5. Statewide Tenant Capital Improvement Impacts

Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
Direct	345	\$15,213,000	\$46,622,000
Supplier Purchases	115	\$5,840,000	\$18,809,000
Employee Spending	163	\$6,796,000	\$21,891,000
Total	623	\$27,849,000	\$87,322,000

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

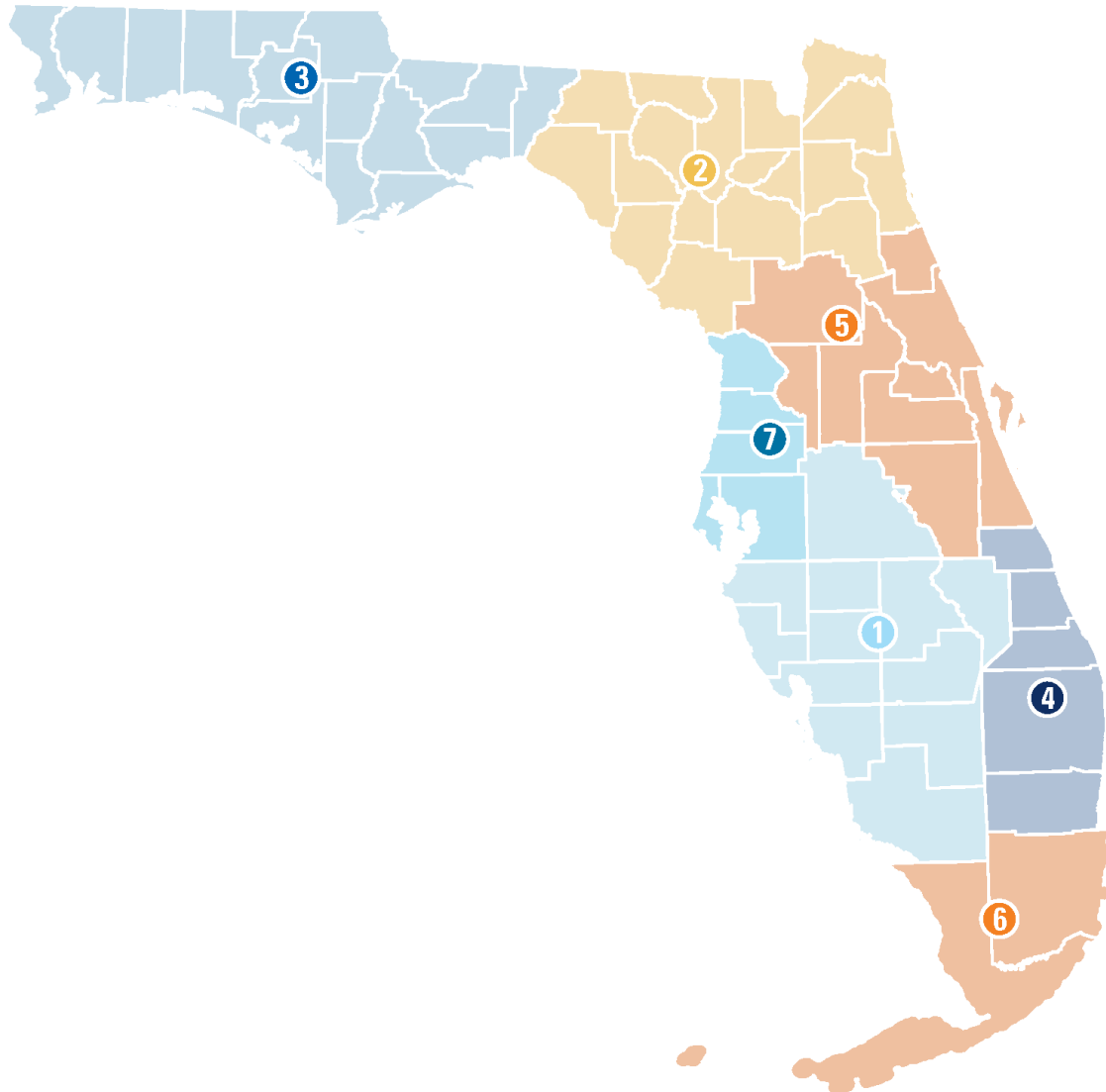
5.4 Regional and State Economic Contribution from On-Airport Activity

The combined economic contribution of airport administration, on-airport tenants, and airport and tenant capital improvements reflects the total economic activity generated on airport property, as well as the subsequent multiplier effects of supplier purchases and income re-spending throughout the state. For a more comprehensive understanding of the economic contribution of on-airport impacts within Florida, FDOT conducted regional economic analyses using FDOT Districts (see Figure 5-4). Since these regional boundaries also have economic relationships with businesses that cross FDOT District boundaries, FDOT



also calculated the economic effects that one FDOT District has to the other areas of Florida (i.e. all other FDOT Districts).

Figure 5-4. FDOT Districts



Source: Kimley-Horn. 2019.

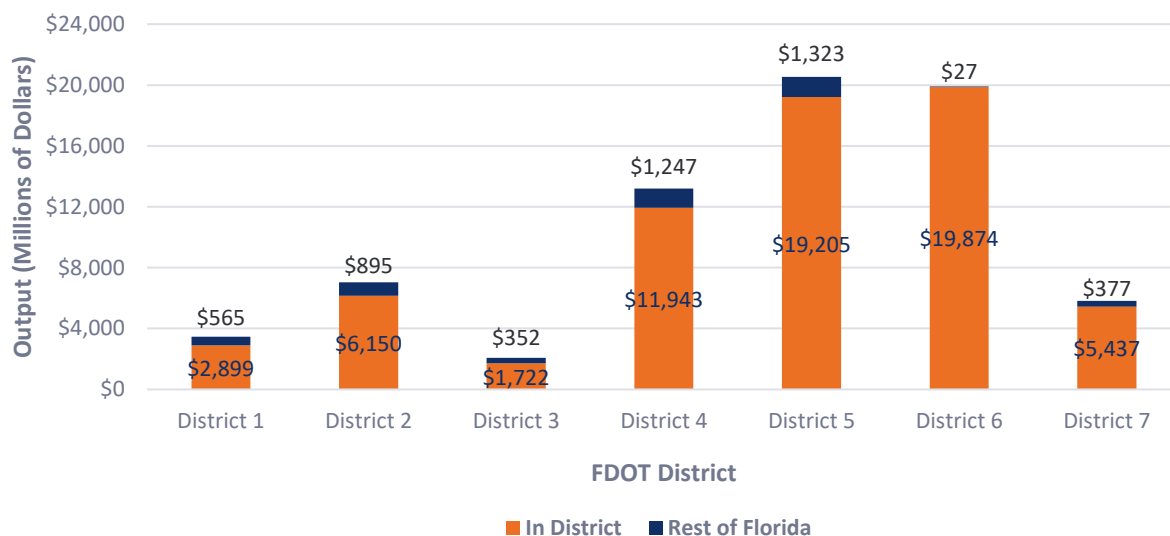
The economic contributions to each FDOT District were measured using the Multi-Regional Input/Output (MRIO) modeling capability provided by IMPLAN. The MRIO modeling capability of IMPLAN was also used to determine the spending effects that spillover beyond the boundaries of an individual FDOT District. Figure 5-5 presents these calculations for each FDOT District. The total for each FDOT District represents the sum of the direct impacts, supplier purchases, and employee spending (within the FDOT District), as



well as the FDOT District's economic contribution to all of the other FDOT Districts (i.e., the rest of Florida). In this way, Figure 5-5 demonstrates the economic contribution of each FDOT District to the rest of Florida's economy. Appendix B: Economic Impacts by FDOT District provides a detailed table of the data presented in Figure 5-5.

As noted previously, it is important to note that the Miami-Dade Aviation Department conducted a standalone economic impact study for its five airports (Miami International Airport (MIA), Dade-Collier Training and Transition Airport (TNT), Homestead General Aviation Airport (X51), Miami Executive Airport (TMB), and Miami-Opa Locka Executive Airport (OPF)) in 2017. Similarly, Melbourne International Airport (MLB) requested that FDOT use the economic impacts for aviation and non-aviation related businesses on-airport activity from its 2015 EIS. The impacts obtained from these reports are included in the table below in their respective FDOT Districts as follows: Miami-Dade airports (District 6) and Melbourne International (District 5).

Figure 5-5. On-Airport Activity Regional and Rest of State Impacts



Sources: *The Economic Impacts of Miami International Airport and the GA Airports within the Miami-Dade County Airport System. 2017. Martin and Associates.; Orlando Melbourne International Airport Economic Impact Study. 2015. Florida Institute of Technology College of Aeronautics.; EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.*

6. Visitor Spending

Airports in Florida function as gateways for out-of-state visitors who travel to Florida for personal and business reasons. These visitors use both commercial service and GA airports to arrive at their destinations and typically spend money in the following categories:

- Accommodations
- Food and beverage
- Ground transportation
- Rental cars
- Retail
- Entertainment

This spending supports local businesses, creates jobs, and provides income to employees that work in these hospitality-oriented businesses. Spending by out-of-state visitors also generates multiplier effects as hospitality businesses purchase goods and services from Florida-based suppliers and as employees spend their income on household purchases. Appendix E: Study Methodology and Section 3: Approach Overview describe multiplier impacts in detail.

This section describes the economic impacts of visitor spending facilitated by commercial service and GA airports in terms of jobs, payroll, and output. As stated in Section 1.3: Study Conventions and Section 5: On-Airport Activity, the Miami-Dade Aviation Department conducted a standalone economic impact study for its five airports (Miami International Airport (MIA), Dade-Collier Training and Transition Airport (TNT), Homestead General Aviation Airport (X51), Miami Executive Airport (TMB), and Miami-Opa Locka Executive Airport (OPF) in 2017. The impacts for these airports are included in tables and figures that present statewide totals only. Northeast Florida Regional Airport (SGJ) is not included in the commercial service analysis because the airport did not provide regular air service at the time of the Study. Table 6-1 shows the total impact of commercial service and GA passengers spending while visiting Florida.

Retail Margining

The concept of retail margining is critical to all economic analyses of visitor spending. While spending on retail reflects the value of the item sold, only a portion of the sales is actual revenue for the retail store. This portion – referred to as margin costs – reflects the “mark-up” value that retail stores add to the price of goods to cover their operating costs and profit.

To isolate the revenues that accrue to retailers, a margin percentage was applied to the value of all retail goods sold. This margining process is used to estimate the jobs and payroll generated from these sales. The retail margin rate ranges from 33 to 35 percent across FDOT Districts. (U.S. Bureau of Economic Analysis, calculated by IMPLAN). This approach is used to more accurately reflect visitor spending and results in a more conservative analysis.

Table 6-1. Visitor Spending Total Impact

	Jobs (no.)	Payroll (\$)	Output (\$)
Commercial Service	851,597	\$29,230,561,000	\$86,430,372,000
General Aviation	42,484	\$1,410,927,000	\$4,302,161,000
Total	894,081	\$30,641,488,000	\$90,732,534,000

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

6.1 Commercial Service Airport Visitor Spending

Nearly 33 million visitors from other states and eight million international visitors travelled to Florida using the state's commercial service airports in 2017, according to the Bureau of Transportation Statistics and Official Airline Guide (aggregated by Airline Data Inc.) in 2017.

Of the 20 commercial service airports in the Florida Aviation System, eight facilities accounted for nearly 93 percent of all visitor travel (domestic and international) to Florida, as shown in blue in Table 6-2. **Orlando International Airport supports the highest percentage of out-of-state visitors (37 percent).** Orlando Sanford and St. Petersburg-Clearwater international airports each support two percent of the state's out-of-state visitors arriving by commercial service. All commercial service airports support 83 to 97 percent domestic travelers, with the exceptions of Miami International Airport (52 percent domestic) and Punta Gorda Airport (100 percent domestic).

Table 6-2. Domestic and International Out-of-State Visitors by Commercial Service Airport (2017)

Airport Name	Associated City	Domestic Visitors (no.)	International Visitors (no.)	Total Visitors (no.)	Percent of Out-of-State Visitors (%)
Daytona Beach International Airport	Daytona Beach	179,967	6,762	186,729	0.50%
Fort Lauderdale Hollywood International Airport	Fort Lauderdale/Hollywood	6,616,435	1,336,051	7,952,486	21%
Southwest Florida International Airport	Fort Myers	2,771,367	153,228	2,924,595	8%
Gainesville Regional Airport	Gainesville	80,923	5,388	86,311	0.20%
Jacksonville International Airport	Jacksonville	1,262,828	71,622	1,334,450	4%
Key West International Airport	Key West	275,157	5,727	280,884	0.80%
Melbourne International Airport	Melbourne	109,101	2,924	112,025	0.30%
Orlando International Airport	Orlando	11,697,694	2,054,158	13,751,852	37%
Orlando Sanford International Airport	Orlando	866,478	26,008	892,486	2%
Northwest Florida Beaches International Airport	Panama City	276,600	8,814	285,414	0.80%
Pensacola International Airport	Pensacola	408,319	18,603	426,922	1.20%
Punta Gorda Airport	Punta Gorda	444,170	-	444,170	1.20%
Sarasota/Bradenton International Airport	Sarasota/Bradenton	311,038	26,985	338,023	0.90%

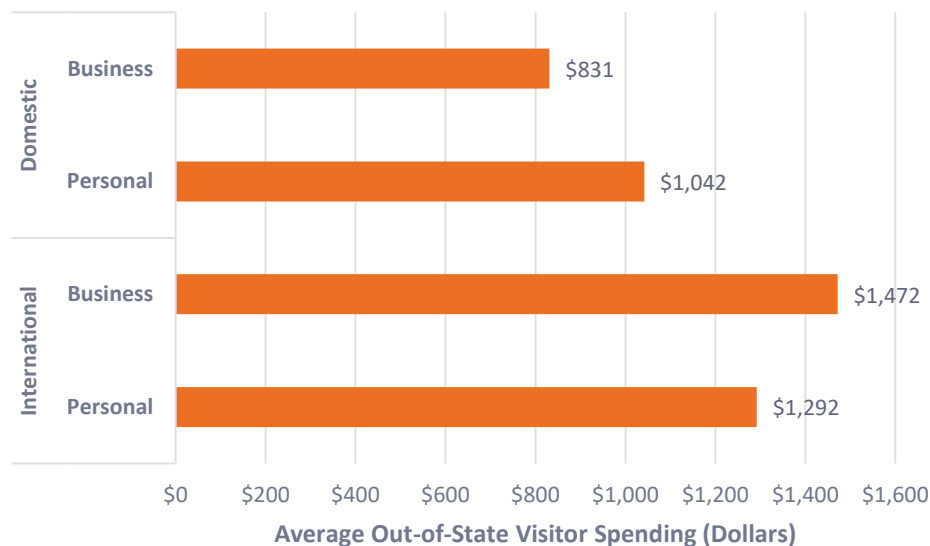


Airport Name	Associated City	Domestic Visitors (no.)	International Visitors (no.)	Total Visitors (no.)	Percent of Out-of-State Visitors (%)
St. Petersburg-Clearwater International Airport	St. Petersburg/Clearwater	657,953	4,225	662,178	2%
Tallahassee International Airport	Tallahassee	136,929	6,732	143,661	0.40%
Tampa International Airport	Tampa	4,661,340	383,879	5,045,219	14%
Destin-Fort Walton Beach Airport	Valparaiso	332,541	11,905	344,446	0.90%
Palm Beach International Airport	West Palm Beach	1,760,135	71,676	1,831,811	5%
Total		32,848,975	4,194,687	37,043,662	100%

Note: Does not include Northeast Florida Regional Airport and Miami International Airport. Source: Airline Data, Inc. 2017

Based on responses from the Commercial Service Passenger Survey, international out-of-state visitors spent more than domestic out-of-state visitors in Florida. **Average international visitors on business travel spent \$1,472 per trip, while visitors on personal travel spent \$1,292.** Among domestic visitors, those on personal travel spent more than those on business (\$1,042 versus \$831, respectively), as shown in Figure 6-1.

Figure 6-1. Average Domestic and International Out-of-State Visitor Spending per Trip: Personal and Business Purposes



*All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.



Average domestic visitor spending per trip ranged from \$663 at Melbourne International Airport (MLB) to \$1,377 at Southwest Florida International (RSW), as shown in Figure 6-2. Eight commercial service airports experienced per-trip visitor spending above \$1,000, while per-trip visitor spending was less than \$1,000 at the remaining airports. It is important to note that some airports received an insufficient number of passenger survey responses to meet the threshold of a 95 percent confidence level with a five percent margin of error. Where this is the case, survey responses were combined with other airports in the same FDOT District to meet these statistical thresholds and conduct a more robust analysis. As a result, several airports in the same FDOT Districts have identical visitor spending profiles (e.g., Punta Gorda [PGD] and Sarasota/Bradenton International [SRQ]).

Figure 6-2. Average Domestic Visitor Spending per Trip by Commercial Service Airport (2017)



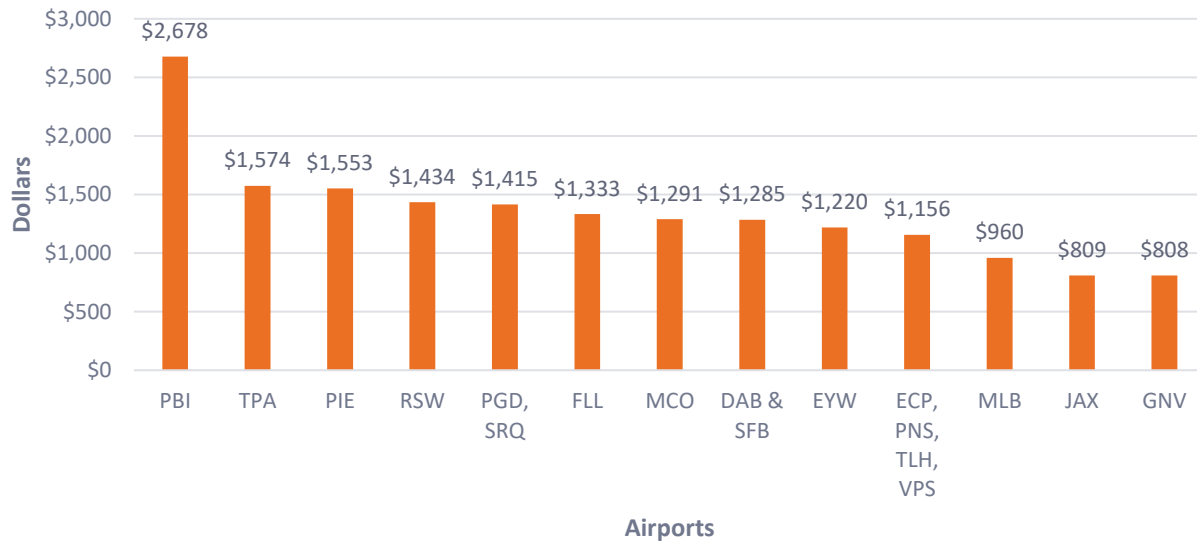
Notes: All values presented in 2017 dollars. Airport names as follows: Southwest Florida International (RSW), Punta Gorda (PGD), Sarasota/Bradenton International (SRQ), Palm Beach International (PBI), Key West International (EYW), Tampa International (TPA), St. Petersburg-Clearwater International (PIE), Orlando International (MCO), Daytona Beach International (DAB), Orlando Sanford International (SFB), Ft. Lauderdale/Hollywood International (FLL), Northwest Florida Beaches International (ECP), Pensacola International (PNS), Tallahassee International (TLH), Destin-Ft Walton Beach (VPS), Gainesville Regional (GNV), Jacksonville International (JAX), Orlando Melbourne International (MLB). Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

As depicted in Figure 6-3, per-trip spending by international visitors at commercial service airports ranged from \$808 at Gainesville Regional (GNV) to \$2,678 at Palm Beach International (PBI). Visitor spending exceeded \$1,000 per trip at 15 of the 18 commercial service airports included in the Study.¹⁹ As with the domestic visitor analysis above, airports without sufficient survey responses were grouped together in the same FDOT District to meet acceptable confidence and margin of error thresholds (e.g., Punta Gorda [PGD] and Sarasota/Bradenton International [SRQ]).

¹⁹ This analysis does not include Miami International Airport and Northeast Regional Florida Airport. Miami International Airport conducted an outside study, which is incorporated into overall results. Northeast Florida Regional Airport did not provide commercial air service at the time of the Study.



Figure 6-3. Average International Visitor Spending per Trip by Commercial Service Airport (2017)

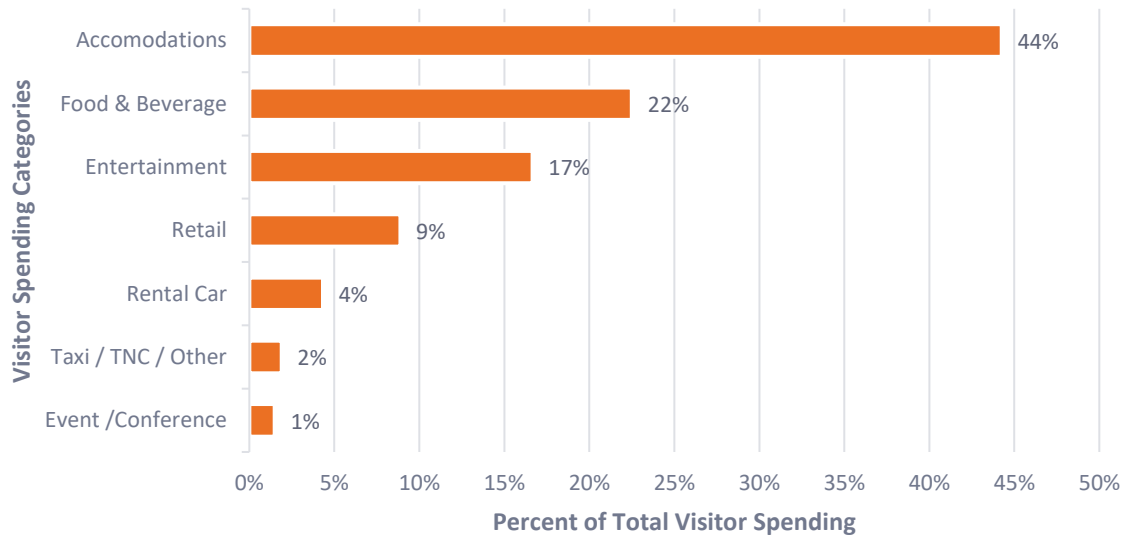


Notes: All values presented in 2017 dollars. Airport names as follows: Palm Beach International (PBI), Tampa International (TPA), St. Petersburg-Clearwater International (PIE), Southwest Florida International (RSW), Punta Gorda (PGD), Sarasota/Bradenton International (SRQ), Ft. Lauderdale/Hollywood International (FLL), Orlando International (MCO), Daytona Beach International (DAB), Orlando Sanford International (SFB), Key West International (EYW), Northwest Florida Beaches International (ECP), Pensacola International (PNS), Tallahassee International (TLH), Destin-Ft Walton Beach (VPS), Orlando Melbourne International (MLB), Jacksonville International (JAX), and Gainesville Regional (GNV). Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Out-of-state visitors who are traveling for tourism or business-related purpose primarily spend money in hospitality-oriented businesses. **On average, accommodations accounted for 44 percent of domestic and international visitor spending, followed by food and beverage (22 percent), entertainment (17 percent), retail (9 percent), and rental cars (4 percent), as shown in Figure 6-4.** Ground transportation expenses for taxis, Transportation Network Companies (TNCs), and other modes accounted for 2 percent of spending, while the remaining 1 percent went to events or conferences.



Figure 6-4. Category of Spending for Domestic and International Commercial Service Airports



Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Visitor spending across all commercial service airports totaled more than \$40 billion dollars in 2017 (see Table 6-3). The top eight commercial service airports in Florida accounted for over 93 percent of visitor spending (blue text in the table below), with Orlando International Airport (MCO) accounted for the largest share (37 percent) due to the many tourist attractions served by the airport.

Table 6-3. Statewide Domestic and International Visitor Spending at Commercial Service Airports

Airport Name	Associated City	Domestic Visitor Spending (\$)	International Visitor Spending (\$)	Total Visitor Spending (\$)	Percent of Total (%)
Daytona Beach International Airport	Daytona Beach	\$167,965,000	\$8,691,000	\$176,656,000	0.40%
Fort Lauderdale Hollywood International Airport	Fort Lauderdale/ Hollywood	\$5,958,769,000	\$1,780,732,000	\$7,739,501,000	19%
Southwest Florida International Airport	Fort Myers	\$3,816,673,000	\$219,801,000	\$4,036,474,000	10%
Gainesville Regional Airport	Gainesville	\$65,102,000	\$4,355,000	\$69,457,000	0.20%



Airport Name	Associated City	Domestic Visitor Spending (\$)	International Visitor Spending (\$)	Total Visitor Spending (\$)	Percent of Total (%)
Jacksonville International Airport	Jacksonville	\$1,013,576,000	\$57,912,000	\$1,071,488,000	3%
Key West International Airport	Key West	\$236,962,000	\$10,188,000	\$247,150,000	0.60%
Melbourne International Airport	Melbourne	\$72,297,000	\$2,808,000	\$75,105,000	0.20%
Orlando International Airport	Orlando	\$12,246,579,000	\$2,651,105,000	\$14,897,684,000	37%
Orlando Sanford International Airport	Orlando	\$808,692,000	\$33,426,000	\$842,118,000	2%
Northwest Florida Beaches International Airport	Panama City	\$284,886,000	\$13,761,000	\$298,647,000	0.70%
Pensacola International Airport	Pensacola	\$417,390,000	\$38,194,000	\$455,584,000	1.10%
Punta Gorda Airport	Punta Gorda	\$596,044,000	\$0	\$596,044,000	1.50%
Sarasota/Bradenton International Airport	Sarasota/Bradenton	\$335,604,000	\$6,985,000	\$342,589,000	0.90%
St. Petersburg-Clearwater International Airport	St. Petersburg/Clearwater	\$714,587,000	\$6,561,000	\$721,148,000	2%
Tallahassee International Airport	Tallahassee	\$117,306,000	\$7,782,000	\$125,088,000	0.30%
Tampa International Airport	Tampa	\$5,155,141,000	\$604,298,000	\$5,759,439,000	14%
Destin-Fort Walton Beach Airport	Valparaiso	\$349,805,000	\$21,503,000	\$371,308,000	0.90%
Palm Beach International Airport	West Palm Beach	\$2,204,547,000	\$191,944,000	\$2,396,491,000	6%



Airport Name	Associated City	Domestic Visitor Spending (\$)	International Visitor Spending (\$)	Total Visitor Spending (\$)	Percent of Total (%)
Total		\$34,561,926,000	\$5,660,046,000	\$40,221,972,000	100%

Notes: All values presented in 2017 dollars. Table does not include Miami International Airport (MIA) or Northeast Florida Regional Airport (SGJ). Sources: Airline Data, Inc. 2017; EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Visitor spending at commercial service airports in Florida supported nearly **429,000 JOBS**, paid **\$12.6 BILLION IN PAYROLL**, and generated nearly **\$38 BILLION IN BUSINESS REVENUES**, as shown in Table 6-4. Including the multiplier effect generated by supplier purchases and employee spending, the total economic contribution in Florida from visitor spending at commercial service airports supported nearly **670,000 jobs**, **\$23.3 billion in payroll**, and **\$71.8 billion in output**.

Table 6-4. Statewide Economic Impacts of Visitor Spending: Commercial Service Airports

Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
Direct	428,899	\$12,579,582,000	\$37,869,327,000
Supplier Purchases	106,877	\$5,026,049,000	\$15,701,128,000
Employee Spending	133,256	\$5,675,129,000	\$18,181,318,000
Total	669,032	\$23,280,760,000	\$71,751,773,000

Notes: All values presented in 2017 dollars. Table does not include Miami International Airport (MIA). Sources: Airline Data, Inc. 2017; EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

6.2 General Aviation Visitor Spending

Though not as widely known as the impact that commercial service airports have in bringing out-of-state visitors to Florida, GA airports also serve as a gateway for out-of-state visitors to access Florida's many attractions and businesses. Visitors who come to Florida may use GA air service at both commercial service and GA airports. Most GA out-of-state visitors use airports classified in the NPIAS as regional (38 percent), followed by national (20 percent), small-hub (15 percent), local (12 percent), and non-hub (8 percent). This combines for a total of 93 percent of all GA out-of-state visitors.

The results of the GA Pilot/Passenger Visitor Survey conducted for this Study were combined with GA visitor spending surveys recently conducted in other states and regions. This hybrid approach results in a fully representative profile of GA visitor spending activities, which are then applied to different classifications of Florida's airports. As shown in Table 6-5, there are five tiers of spending profiles for each NPIAS classification ranging from \$23 to \$381 per visitor. The table also shows total spending by airport type. The top four airport types accounted for 87 percent of all GA visitor spending as follows: national (\$758 million), regional (\$682 million), small hub (\$561 million), and non-hub (\$294 million). **All out-of-state GA visitors using either commercial service and GA airports spent \$2.6 billion total.**



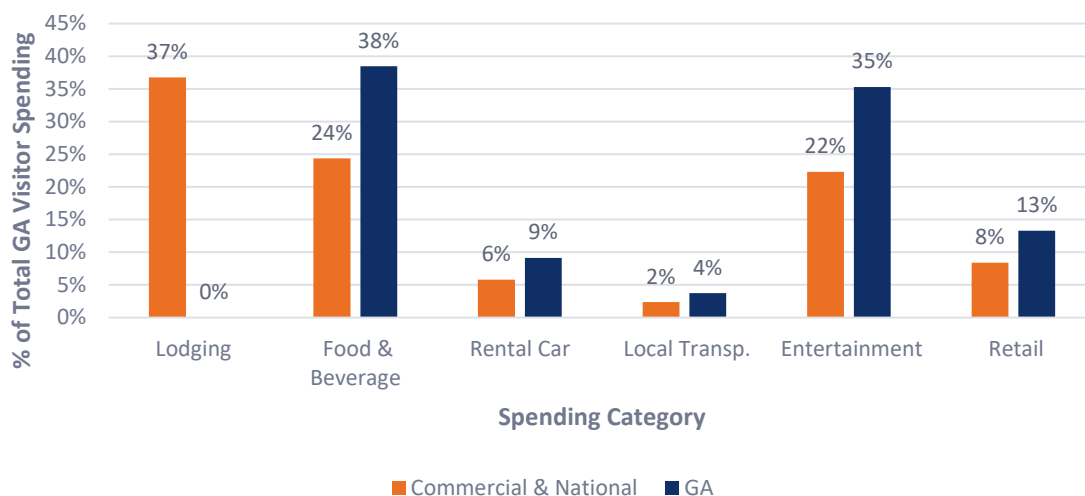
Table 6-5. General Aviation Out-of-State Visitors and Spending per Trip by NPIAS Airport Classification

NPIAS Airport Classification	Number of Airports	Number of GA Visitors	Percent of Total	Spending Per Visitor (\$)	Total Spending (\$)
Large Hub	4	272,007	3%	\$381	\$103,541,000
Medium Hub	3	149,014	2%	\$381	\$56,723,000
Small Hub	7	1,474,958	15%	\$381	\$561,452,000
Non-hub	6	772,352	8%	\$381	\$294,001,000
GA-National	9	1,991,373	20%	\$381	\$758,030,000
GA-Regional	30	3,766,660	38%	\$181	\$681,765,000
GA-Local	29	1,175,684	12%	\$136	\$159,893,000
GA-Basic	11	186,025	2%	\$90	\$16,742,000
GA- Unclassified/Non-NPIAS	21	109,282	1%	\$23	\$2,513,000
Total	120	9,897,355	100%	NA	\$2,634,660,000

Note: All values presented in 2017 dollars. Sources: Airline Data, Inc. 2017; EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

The spending profile of GA visitors was divided into two categories: (1) commercial service and national airports and (2) all other GA airports (i.e., regional, local, basic, unclassified, and non-NPIAS). Because visitors using GA airports likely travel from locations in close proximity to Florida, the main difference between the two categories is that GA visitors using commercial service and national airports spend money on accommodations, while visitors who primarily use other GA airports spend money on food and beverage, entertainment, and other categories in addition to spending for accommodations (see Figure 6-5).

Figure 6-5. General Aviation Visitor Spending by Category at Commercial Service and General Aviation Airports



Notes: All values presented in 2017 dollars. Table includes GA-National airports. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Spending by out-of-state visitors who use GA airports in Florida supported over **27,000 JOBS**, paid **\$755 MILLION IN PAYROLL**, and generated over **\$2.2 BILLION IN BUSINESS REVENUES** (see Table 6-6). **Including the multiplier effect generated by supplier purchases and employee spending, the total economic contribution in Florida from GA visitor spending supported over 42,000 jobs, \$1.4 billion in payroll, and \$4.2 billion in output.**

Table 6-6. Statewide Economic Impacts of Visitor Spending: General Aviation Airports

Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
Direct	27,357	\$754,949,000	\$2,221,254,000
Supplier Purchases	6,671	\$301,962,000	\$959,202,000
Employee Spending	8,034	\$340,516,000	\$1,091,304,000
Total	42,062	\$1,397,427,000	\$4,271,760,000

Notes: All values presented in 2017 dollars. Table does not include Dade-Collier Training and Transition Airport (TNT), Miami Executive Airport (TMB), Homestead General Aviation Airport (X51), Miami Opa-Locka Executive Airport (OPF), and Miami International Airport (MIA). Sources: Airline Data, Inc. 2017; EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.



6.3 Combined Commercial Service and General Aviation Airport Visitor Spending

Similar to the impacts of on-airport activity, FDOT conducted a regional analysis to gain a comprehensive understanding of the economic contributions of visitor spending impacts within Florida. While FDOT Districts served as regional boundaries, FDOT also calculated the economic effects that one FDOT District has to the other areas of Florida (All Regions) since these regional boundaries also have economic relationships with businesses that cross FDOT District boundaries.

Table 6-7 presents the combined visitor spending impacts for both commercial service and GA airports by FDOT District. District 5 has the highest number of job impacts (30 percent), followed by District 6, District 4, and District 7. These FDOT Districts respectively account for 22, 18, and 13 percent of total visitor spending. All supplier purchases and employee spending occurring in other FDOT Districts are combined into the category “Rest of Florida.” Overall visitor spending contributed a total of **894,000 JOBS**, **\$30.6 BILLION IN PAYROLL** and **\$90.7 BILLION IN OUTPUT** to the Florida economy.

Table 6-7. Regional and Statewide Economic Impacts of Visitor Spending: Commercial Service and General Aviation Airports

FDOT District	Jobs (no.)	Payroll (\$)	Output (\$)
1	93,387	\$2,817,072,000	\$8,240,890,000
2	21,574	\$687,615,000	\$2,168,570,000
3	23,173	\$621,275,000	\$2,029,093,000
4	156,848	\$5,748,224,000	\$17,027,633,000
5	257,782	\$8,787,264,000	\$26,964,596,000
6	188,892	\$6,191,019,000	\$15,362,859,000
7	112,173	\$3,755,558,000	\$11,785,717,000
All Regions	40,252	\$2,033,461,000	\$7,153,176,000
Total	894,081	\$30,641,488,000	\$90,732,534,000

Notes: All values presented in 2017 dollars. Table includes Miami International Airport (MIA), Homestead General Aviation Airport (X51), Miami Executive Airport (TMB), and Miami-Opa Locka Executive Airport (OPF). Sources: Airline Data, Inc. 2017; EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.



7. Industry Reliance

The analyses of on-airport activity and visitor spending impacts highlight the core contributions of the Florida airport system to statewide and regional economies. In addition, airports also play a vital role in supporting the state's economy by enabling business travel and air cargo shipments for Florida-based businesses. Off-airport business reliance on aviation is not typically captured in an airport system EIS, nor is it quantified as on-airport activity and visitor spending. However, businesses not explicitly related to aviation rely on airports for access to long-distance markets. Table 7-1 shows the profiles of businesses reliant on airports for both passenger travel and cargo movements.

Table 7-1. Profile Business Reliance on Airports

Business Travel	Air Cargo
<ul style="list-style-type: none">• Traveling for business (example: sales trips)• Conducting off-site project work• Coordinating business between multi-office firms (or multiple firms)• Bringing customers to Florida offices/manufacturing sites	<ul style="list-style-type: none">• Shipping goods to long distance national/international markets• Minimizing production or operational costs using air shipments for manufacturing inputs or retail sales

Source: EDR Group. 2018.

EISs that address business reliance can take multiple approaches. These include surveying thousands of businesses across a state or region and hoping for a sufficient response rate, generalizing survey results across the targeted economy, and/or making assumptions regarding air-reliant industries using third-party databases.

To be conservative and not overstate the contributions of Florida's public-use airports to the state economy, this Study identifies specific firms that are known to rely on airports by airport managers. This type of analysis is more qualitative in its approach and multiplier effects have not been applied. **The objective is to identify the types of industries in Florida that rely on aviation services and the amount of business activity that depends on the availability of air service.**

Note: Results in this section reflect businesses that rely on airports identified by airport administration (not all businesses in Florida that rely on airports).

7.1 Selection of Business-Reliant Companies

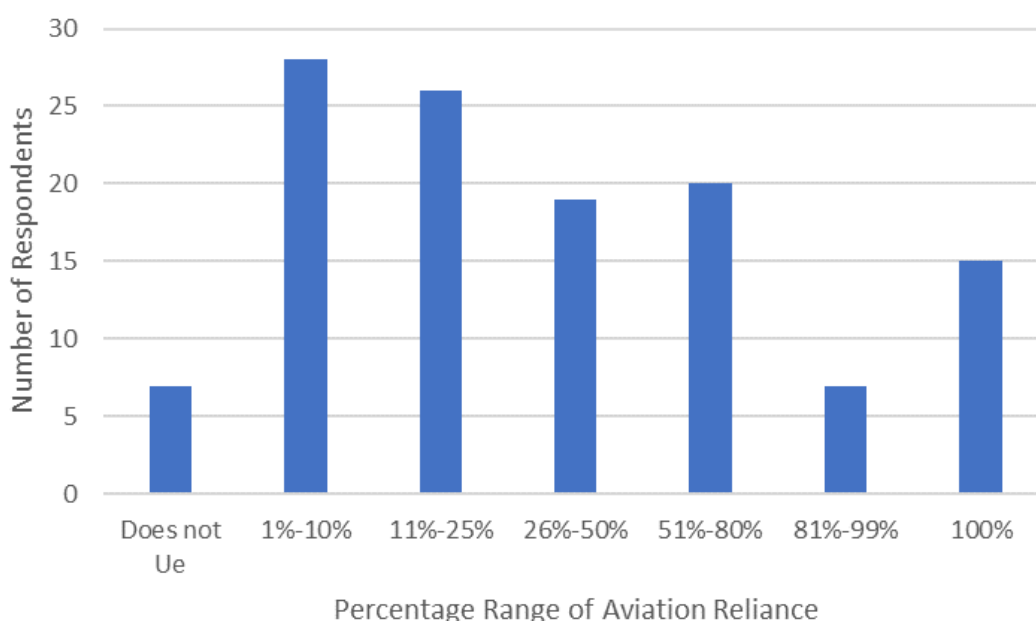
Airport managers were asked to identify businesses that rely on their airports during the Airport Manager Survey, including companies that base aircraft at a Florida airport or frequently use commercial passenger or cargo services. Surveys that asked these businesses to estimate the percentage of revenues considered reliant on air transportation were then distributed. These surveys indicate the use of airports by the state's business community.

One hundred and twenty-two companies responded to the survey (approximately 32 percent response rate). These companies comprise various industry profiles, including manufacturing, construction,

distribution, hospitality, entertainment, health care, information, government, and services (i.e., other professional services). The Businesses that Own/Lease Aircraft and Businesses that Rely of Florida Airports surveys asked businesses to indicate the extent of their reliance on aviation as a percent range of their total business revenues or employment.

Figure 7-1 illustrates the extent of reliance on Florida's airports by respondent companies. Fifteen companies reported that they are 100 percent reliant on airports, while seven indicated no dependence. More than 25 responses each ranged between 1 and 10 percent and 11 to 25 percent reliance on aviation. Approximately 20 survey responses each indicated a reliance on aviation ranging from 26 to 50 percent and 51 to 80 percent.

Figure 7-1. Survey Responses by Range of Aviation Reliance



Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.

Responding businesses indicated that nearly **16,220 PEOPLE** and **\$2.2 BILLION IN OUTPUT** was directly reliant on Florida airports. Based on a total of nearly 65,000 jobs and \$8 billion in business revenues, this reflected a **TOTAL JOB RELIANCE OF 25 PERCENT** and a **TOTAL OUTPUT RELIANCE OF 29 PERCENT** for Florida businesses included in the Study.

As presented in Table 7-2, the percentage of jobs reliant on Florida airports in the top seven industries ranged from 21 percent (finance and insurance) to 55 percent (professional services). Other service-oriented industries such as real estate (52 percent job reliance) and business services (23 percent job reliance) are known for needing air services for business travel.

These results are based solely on survey responses and businesses identified by airport managers and cannot be extrapolated to expand the survey response results to the rest of the state economy. This is a



conservative approach considering the number of survey responses statewide. Nevertheless, these results are illustrative of how businesses in Florida rely on aviation to enter long-distance markets and acquire materials to enable the production and sales of competitively priced goods.

Table 7-2. Economic Profile of Industries Reliant on Aviation

Industry	Total Jobs	Reliant Jobs	Percent Total Jobs	Payroll (\$)	Output (\$)
Construction	12,989	5,521	43%	\$255,199,000	\$760,143,000
Professional, Scientific & Technical Services	5,155	2,850	55%	\$222,145,000	\$441,477,000
Business Services	10,788	2,492	23%	\$83,379,000	\$200,296,000
Finance and Insurance	5,864	1,227	21%	\$95,678,000	\$262,136,000
Real Estate	1,413	741	52%	\$10,947,000	\$124,414,000
Retail	1,056	506	48%	\$14,696,000	\$34,805,000
Manufacturing	2,380	728	31%	\$37,225,000	\$119,063,000
All Others	19,988	2,155	11%	\$120,600,000	\$338,716,000
Total	59,634	16,220	25%	\$839,867,000	\$2,281,049,000

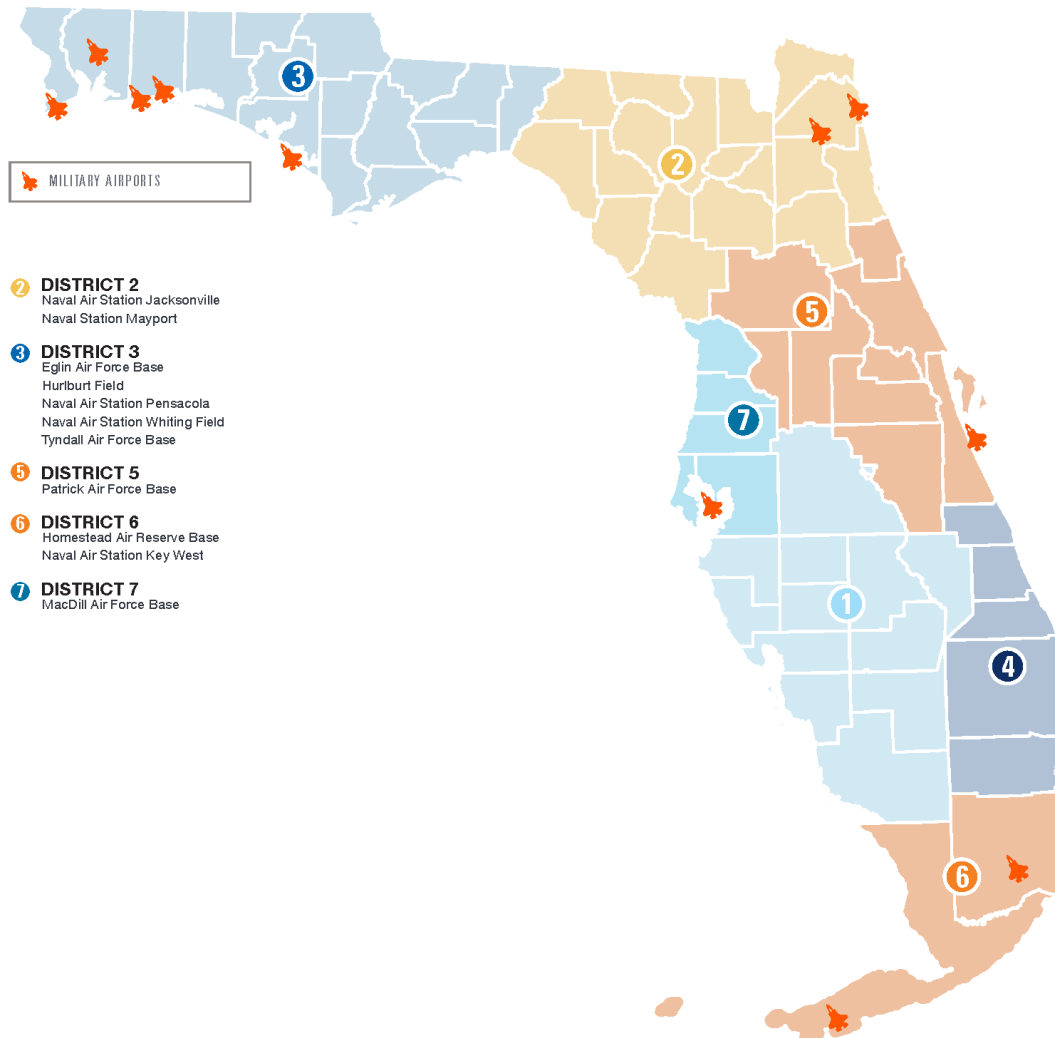
Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using Bureau of Labor (BLS) and Bureau of Economic Analysis (BEA) data within the 2016 IMPLAN model.



8. Military Spending

Military aviation is a key component of the state's economy. Florida's favorable climate, geographic location, and available overwater airspace make it an ideal place for military aviation installations. The Study focuses on the economic contribution of 11 military airports to Florida's economy. It should be noted that these are not the only military installations in Florida that serve aviation. There are many others, such as the U.S. Coast Guard at St. Pete-Clearwater International Airport, that employ hundreds of people that have a significant impact on the state's economy. However, the Study only includes installations whose primary purpose is to serve as an airport. Figure 8-1 lists the military installations included in this Study.

Figure 8-1. Military Airports



Source: Kimley-Horn. 2019.

Data presented in the section are sourced from the DOD economic impact publications, BRAC, and other state and local EISs developed between 2014 and 2016.

Military aviation in Florida is a major contributor to state and local economies, employing over **108,172 WORKERS** and spending more than **\$9.8 BILLION** in capital investments in 2016 (presented in 2017 dollars). Data shows a general upward trend in employment and spending since 2013, when employment was 82,207 and total spending was around \$8.1 billion. Table 8-1 summarizes spending and employment by FDOT District. Refer to Appendix D: Military Aviation Analysis for details by military airfield.

Table 8-1. Military Aviation Economic Impacts

FDOT District	Jobs (no.)	Payroll (\$)	Capital Expenditures (\$)	Total Spending (\$)
1		-	-	\$0
2	27,984	\$1,809,599,000	\$659,848,000	\$2,469,447,000
3	59,968	\$3,846,631,000	\$1,046,772,000	\$4,893,403,000
4	-	-	-	\$0
5	9,342	\$379,553,000	\$470,946,000	\$850,499,000
6	6,165	\$272,351,000	\$311,602,000	\$583,953,000
7	4,713	\$273,346,000	\$745,132,000	\$1,018,478,000
Total	108,172	\$6,581,480,000	\$3,234,300,000	\$9,815,780,000

Note: The CPI inflation calculator was used to normalize 2016 dollars to 2017 dollars. Sources: Okaloosa Economic Development Council; Eglin AFB 96 FSS/FSMM; Eglin AFB Public Affairs Office; Hurlburt Field Fact Sheet; Public Affairs Office; Hurlburt Field EIS; Homestead ARB Public Affairs Office; MacDill AFB Office of Public Affairs; MacDill AFB Economic Impact Analysis; Patrick AFB Economic Impact Analysis; Patrick AFB EIS; Tyndall AFB Economic Impact Analysis; Tyndall AFB EIS; NAS Whiting Field Office of Public Affairs, University of West Florida, Haas Center; Navy Region Southeast EIS, Fiscal Year 2016; NAS Jacksonville Office of Public Affairs; Navy Region Southeast EIS, Fiscal Year 2016; NS Mayport Office of Public Affairs, University of West Florida, Haas Center; NAS Key West Office of Public Affairs, University of West Florida, Haas Center; NAS Pensacola Office of Public Affairs.



9. Aviation-Related Education

The aviation industry has a diverse range of jobs that require a workforce with an equally diverse range of talent, skills, and abilities. Air carriers, air traffic management centers, and airports, as well as public agencies and private aviation consulting companies, require a technically educated and experienced work force. Over the years, Florida’s robust aviation system and favorable climate have attracted aviation-related institutions and flight schools, allowing Florida to help meet demand for technically capable aviation professionals.

Programs vary from small, single instructor flight training operations to fully accredited universities. Varied programs of instruction offered around Florida include instruction in military air logistics, aviation management, commercial and GA pilot training, flight operations management, and airframe and power mechanics—among many others. In addition to small and mid-sized programs on airports, Florida is home to major aviation educational institutions including Embry-Riddle Aeronautical University, the Florida Institute of Technology College of Aeronautics, and others.

No other state compares to Florida in terms of the number of flight schools and aviation-related training programs available to prospective students.

A total of 83 of Florida’s airports were noted to offer some level of flight training services.²⁰ Airport tenants that offer flight training on these airports range from single instructors helping students obtain training hours, to aviation-related training programs organized by local school boards, to large flight schools operated by FBOs. During the data collection process, the FDOT Aviation and Spaceports Office documented all flight schools and businesses offering flight training services on airport property, as well as their employment.²¹

Table 9-1 summarizes the total number of on-airport businesses that provide flight training services, as well as the total number of employees at these businesses. It is worth noting that impacts generated by these businesses are already included in on-airport activity and in each airport’s individual impacts. They are summarized here to demonstrate the scale of aviation training available at Florida’s airports.

These businesses generate economic output through the provision of training services, as well as through supplier purchases and when employees spend wages. Students that must relocate to an area for education and training support the local economy through rental housing and food and retail purchases.

²⁰ FASP 2035. 2017. FDOT Aviation and Spaceports Office.

²¹ Please note that this section is qualitative in nature. On-airport activity includes the economic impact of on-airport businesses that provide flight training services. The statewide economic impacts do not include off-airport educational institutions described in the paragraph above, as they are not on a public-use airport’s property.



Table 9-1. Aviation Training Businesses and Employment On-Airport by FDOT District

FDOT District	Businesses (no.)	Full-Time Employees (no.)	Part-Time Employees (no.)	Total Employment (no.)
1	46	221	66	254
2	17	202	11	208
3	9	108	30	123
4	43	770	101	821
5	29	636	115	694
6	10	34	2	35
7	10	57	46	80
Total	164	2,028	371	2,213

Source: EIS Surveys. 2017. Kimley-Horn.

Beyond flight schools and aviation training on airports, Florida is home to some of the country's premier aviation-related education programs and institutions: Embry-Riddle Aeronautical University (Daytona Beach campus), the College of Aeronautics at the Florida Institute of Technology, the School of Aviation at Jacksonville University, and Lynn University's Burton D. Morgan College of Aeronautics. Institutions such as these help the aviation industry build a strong foundation with a technically capable workforce.

Embry-Riddle Aeronautical University established itself in Daytona Beach in 1965 and offers more than 100 degrees at the associates, bachelors, masters, and Ph.D. levels in the following areas: aviation; applied science; business; computers and technology; engineering; security, intelligence, and safety; and space. The Daytona Beach campus has over 6,338 students enrolled in its four-year colleges, all of which have an aviation component.²²

The College of Aeronautics at the Florida Institute of Technology in Melbourne provides educational programs to undergraduate and graduate students that lead to both flight and non-flight aviation careers. The college offers over two dozen degrees in fields including aviation science, aerospace engineering, air traffic control, and aviation management. In fall 2017, there were 603 students enrolled at the college. Graduates find employment in airline operations, airport and airline management, corporate aviation, and government agencies, as well as serving as flight crew members.

The School of Aviation at Jacksonville University has existed for 33 years and currently enrolls 170 students. Students at Jacksonville University can earn a bachelor's degree in either Aviation Management or Aviation Management and Flight Operations.

At Lynn University, there are degree programs and certificates in air traffic control, aviation operations and security, and flight instruction. The school admits only 75 students at a time. Table 9-2 summarizes the total number of staff and students at Florida's major aviation education institutions.

²² Embry Riddle Aeronautical University. Accessed in 2019 at: <https://erau.edu/>.

Table 9-2. Aviation Institution Faculty and Staff and Student Enrollment

Institution	Associated City	Faculty and Staff (no.)	Students (no.)
Lynn University	Boca Raton	7	75
Embry Riddle Aeronautical University	Daytona Beach	763	6,338
School of Aviation at Jacksonville University	Jacksonville	6	170
College of Aeronautics at the Florida Institute of Technology	Miami	25	603

Sources: Embry Riddle Aeronautical University. Accessed in 2019 at: <https://news.erau.edu/media-resources/facts-and-figures/faculty-and-staff/>; Florida Institute of Technology. Access in 2019 at: <https://www.fit.edu/aeronautics/faculty-and-research/faculty--staff/>; Jacksonville University. Accessed in 2019 at: <https://www.ju.edu/aviation/facultyandstaff/index.php>; Lynn University. Accessed in 2019 at: <https://www.lynn.edu/campus-directory/college-of-aeronautics>.

It has become increasingly obvious that airports, air carriers, and air traffic management centers face workforce shortages nationwide.²³ As the aviation industry grows, demand for well-trained professionals will continue to grow along with it. With its schools and programs in the field of aviation, Florida is well positioned to meet this demand. The economic impact of aviation-related training programs and educational institutions goes far beyond generating economic output; the workforce produced by these training programs are the foundation that supports the country's rapidly growing aviation industry.

FLIGHT TRAINING CASE STUDY



Florida's institutions and businesses go above and beyond to support the aviation and aerospace industry by offering training and education in aviation management, maintenance, business, and operations in addition to typical flight training services. **Left:** ATP Flight School aircraft on the apron at Naples Municipal Airport. ATP Flight School, one of the largest flight training companies in the United States, is headquartered in Jacksonville, Florida. **Right:** North Florida Aviation Academy workshop at Lake City Gateway Airport. The academy was developed in partnership with the Columbia County School Board, Northeast Florida Education Consortium, Hong Kong Aircraft Engineering Company (HAECO), and the City of Lake City.

²³ Aviation Workforce Development Practices, A Synthesis of Airport Practices (ACRP Synthesis 18). Washington D.C. 2010. Aviation Cooperative Research Program (ACRP).



10. Appendices

- Appendix A: Economic Impacts by Airport**
- Appendix B: Economic Impacts by FDOT District**
- Appendix C: Case Studies**
- Appendix D: Military Aviation Analysis**
- Appendix E: Study Methodology**
- Appendix F: Definitions**
- Appendix G: Survey Instruments**

A. Total Economic Impacts by Airport

On-airport activity and visitor spending impacts columns in Table A-1 are the total direct impacts for each category. Multiplier impacts are the supplier purchases and employee spending resulting from on-airport activity and visitor spending. Total economic impact/output is the sum of on-airport activity, visitor spending, and multiplier impacts.

Table A-1. Total Impacts by Airport – Commercial Service Airports

FDOT District	Airport Name	Airport Code	Associated City	On-Airport Activity Impact (\$)	Visitor Spending Impact (\$)	Multiplier Impacts (\$)	Total Employment (no.)	Total Payroll (\$)	Total Economic Impact/Output (\$)
1	Southwest Florida International Airport	RSW	Fort Myers	\$655,830,000	\$3,721,580,000	\$4,027,914,000	83,290	\$2,846,339,000	\$8,405,324,000
	Punta Gorda Airport	PGD	Punta Gorda	\$100,501,000	\$572,775,000	\$601,812,000	12,392	\$418,762,000	\$1,275,088,000
	Sarasota/Bradenton International Airport	SRQ	Sarasota/ Bradenton	\$197,771,000	\$487,582,000	\$648,230,000	12,130	\$465,502,000	\$1,333,583,000
2	Gainesville Regional Airport	GNV	Gainesville	\$92,828,000	\$104,033,000	\$177,144,000	2,964	\$113,074,000	\$374,006,000
	Jacksonville International Airport	JAX	Jacksonville	\$646,251,000	\$1,055,333,000	\$1,492,838,000	26,396	\$993,638,000	\$3,194,422,000
	Northeast Florida Regional Airport	SGJ	St. Augustine	\$850,529,000	\$45,273,000	\$576,633,000	5,624	\$343,082,000	\$1,472,434,000
3	Northwest Florida Beaches International Airport	ECP	Panama City Beach	\$77,639,000	\$330,365,000	\$363,903,000	7,602	\$235,213,000	\$771,907,000
	Pensacola International Airport	PNS	Pensacola	\$266,265,000	\$400,181,000	\$600,170,000	11,497	\$397,184,000	\$1,266,616,000
	Tallahassee International Airport	TLH	Tallahassee	\$146,715,000	\$171,268,000	\$281,896,000	5,202	\$187,906,000	\$599,879,000
	Destin-Ft Walton Beach Airport	VPS	Valparaiso	\$131,245,000	\$298,684,000	\$384,220,000	7,682	\$249,831,000	\$814,149,000
4	Fort Lauderdale/Hollywood International Airport	FLL	Fort Lauderdale/ Hollywood	\$3,884,631,000	\$7,216,920,000	\$9,702,436,000	156,200	\$6,674,292,000	\$20,803,987,000
	Palm Beach International Airport	PBI	West Palm Beach	\$673,479,000	\$2,304,357,000	\$2,664,438,000	48,602	\$1,851,444,000	\$5,642,274,000
5	Daytona Beach International Airport	DAB	Daytona Beach	\$155,574,000	\$232,462,000	\$349,561,000	6,431	\$242,673,000	\$737,597,000
	Melbourne International Airport	MLB	Melbourne	\$1,724,524,000	\$107,428,000	\$939,411,000	15,059	\$957,793,000	\$2,771,364,000
	Orlando International Airport	MCO	Orlando	\$7,361,768,000	\$13,939,406,000	\$19,827,009,000	343,576	\$13,539,181,000	\$41,128,183,000
	Orlando Sanford International Airport	SFB	Orlando	\$478,765,000	\$890,506,000	\$1,231,515,000	21,179	\$818,972,000	\$2,600,786,000
6	Key West International Airport	EYW	Key West	\$80,953,000	\$368,067,000	\$407,668,000	7,185	\$296,469,000	\$856,687,000
	Miami International Airport	MIA	Miami	\$17,274,400,000	\$12,999,500,000	\$2,921,300,000	263,953	\$11,380,900,000	\$33,195,200,000
7	St. Pete-Clearwater International Airport	PIE	St. Petersburg/ Clearwater	\$464,044,000	\$908,946,000	\$1,206,509,000	21,365	\$827,905,000	\$2,579,499,000
	Tampa International Airport	TPA	Tampa	\$2,063,090,000	\$5,634,609,000	\$6,754,086,000	121,159	\$4,507,716,000	\$14,451,785,000
Total				\$37,326,802,000	\$51,789,275,000	\$55,158,693,000	1,179,488	\$47,347,876,000	\$144,274,770,000

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model. Table only includes on-airport activity and visitor spending impacts.

Table A-2. Total Impacts by Airport – General Aviation Airports

FDOT District	Airport Name	Airport Code	Associated City	On-Airport Activity Impact (\$)	Visitor Spending Impact (\$)	Multiplier Impacts (\$)	Total Employment (no.)	Total Payroll (\$)	Total Economic Impact / Output (\$)
1	Arcadia Municipal Airport	X06	Arcadia	\$2,301,000	\$123,000	\$2,529,000	34	\$1,944,000	\$4,953,000
	Avon Park Executive Airport	AVO	Avon Park	\$4,550,000	\$372,000	\$4,689,000	70	\$3,537,000	\$9,610,000
	Bartow Municipal Airport	BOW	Bartow	\$111,835,000	\$2,706,000	\$107,888,000	1,501	\$75,783,000	\$222,429,000
	Airglades Airport	2IS	Clewiston	\$7,074,000	\$2,276,000	\$8,743,000	124	\$5,942,000	\$18,093,000
	Buchan Airport	X36	Englewood	\$181,000	\$0	\$189,000	8	\$164,000	\$370,000
	Everglades Airpark	X01	Everglades City	\$960,000	\$266,000	\$1,062,000	15	\$701,000	\$2,287,000
	Page Field	FMY	Fort Myers	\$112,245,000	\$84,399,000	\$188,423,000	3,328	\$135,336,000	\$385,068,000
	Immokalee Regional Airport	IMM	Immokalee	\$19,361,000	\$1,810,000	\$17,885,000	247	\$11,517,000	\$39,056,000
	La Belle Municipal Airport	X14	La Belle	\$942,000	\$2,752,000	\$3,417,000	68	\$2,342,000	\$7,112,000
	Lake Wales Municipal Airport	X07	Lake Wales	\$6,266,000	\$1,661,000	\$7,370,000	145	\$5,263,000	\$15,296,000
	Lakeland Linder International Airport	LAL	Lakeland	\$209,911,000	\$89,725,000	\$275,177,000	4,408	\$203,693,000	\$574,814,000
	South Lakeland Airport	X49	Lakeland	\$0	\$302,000	\$288,000	6	\$200,000	\$590,000
	Marco Island Executive Airport	MKY	Marco Island	\$11,014,000	\$6,153,000	\$14,542,000	294	\$11,180,000	\$31,709,000
	Naples Municipal Airport	APF	Naples	\$141,584,000	\$89,986,000	\$208,603,000	3,367	\$152,296,000	\$440,173,000
	Okeechobee County Airport	OBE	Okeechobee	\$3,157,000	\$15,741,000	\$18,434,000	374	\$13,050,000	\$37,332,000
	Airport Manatee	48X	Palmetto	\$273,000	\$73,000	\$360,000	7	\$235,000	\$706,000
	River Ranch Resort Airport	2RR	River Ranch	\$21,345,000	\$15,000	\$25,334,000	289	\$20,700,000	\$46,693,000
	Sebring Regional Airport	SEF	Sebring	\$135,784,000	\$56,430,000	\$176,222,000	2,649	\$111,457,000	\$368,436,000
	Venice Municipal Airport	VNC	Venice	\$19,450,000	\$8,030,000	\$26,097,000	420	\$17,835,000	\$53,577,000
	Wauchula Municipal Airport	CHN	Wauchula	\$1,910,000	\$81,000	\$1,637,000	23	\$1,004,000	\$3,627,000
2	Jack Browns Seaplane Base	F57	Winter Haven	\$663,000	\$175,000	\$939,000	33	\$757,000	\$1,776,000
	Winter Haven Regional Airport	GIF	Winter Haven	\$11,691,000	\$22,869,000	\$32,079,000	622	\$22,029,000	\$66,640,000
	Flying Ten Airport	OJ8	Archer	\$4,000	\$44,000	\$45,000	1	\$31,000	\$93,000
	George T Lewis Airport	CDK	Cedar Key	\$164,000	\$1,842,000	\$1,942,000	40	\$1,316,000	\$3,948,000
	Cross City Airport	CTY	Cross City	\$1,294,000	\$2,805,000	\$3,856,000	77	\$2,626,000	\$7,955,000
	Fernandina Beach Municipal Airport	FHB	Fernandina Beach	\$14,683,000	\$7,573,000	\$18,831,000	350	\$12,137,000	\$41,087,000
	Oak Tree Landing Airport	6J8	High Springs	\$1,178,000	\$153,000	\$1,233,000	21	\$827,000	\$2,565,000
	Hilliard Airpark	01J	Hilliard	\$250,000	\$25,000	\$261,000	4	\$178,000	\$536,000
	Cecil Airport	VQQ	Jacksonville	\$1,699,547,000	\$22,895,000	\$1,117,343,000	11,084	\$694,250,000	\$2,839,786,000
	Herlong Recreational Airport	HEG	Jacksonville	\$21,600,000	\$5,938,000	\$24,933,000	379	\$16,205,000	\$52,471,000
	Jacksonville Executive at Craig Airport	CRG	Jacksonville	\$37,320,000	\$16,330,000	\$49,894,000	885	\$33,027,000	\$103,545,000
	Keystone Airpark	42J	Keystone Heights	\$8,430,000	\$882,000	\$8,473,000	127	\$6,763,000	\$17,785,000
	Lake City Gateway Airport	LCQ	Lake City	\$592,436,000	\$8,911,000	\$402,687,000	4,079	\$243,024,000	\$1,004,033,000
	Suwannee County Airport	24J	Live Oak	\$6,329,000	\$1,629,000	\$6,517,000	96	\$3,917,000	\$14,475,000
	Palatka Municipal - Lt Kay Larkin Field	28J	Palatka	\$9,500,000	\$6,767,000	\$13,091,000	207	\$8,192,000	\$29,357,000
	Perry-Foley Airport	40J	Perry	\$560,000	\$111,000	\$616,000	10	\$421,000	\$1,286,000
	Williston Municipal Airport	X60	Williston	\$171,631,000	\$2,417,000	\$135,716,000	1,719	\$78,190,000	\$309,763,000

FDOT District	Airport Name	Airport Code	Associated City	On-Airport Activity Impact (\$)	Visitor Spending Impact (\$)	Multiplier Impacts (\$)	Total Employment (no.)	Total Payroll (\$)	Total Economic Impact / Output (\$)
3	Apalachicola Regional-Cleve Randolph Field	AAF	Apalachicola	\$3,335,000	\$3,754,000	\$6,874,000	133	\$4,387,000	\$13,963,000
	St George Island Airport	F47	Apalachicola	\$0	\$18,000	\$17,000	0	\$11,000	\$35,000
	Calhoun County Airport	F95	Blountstown	\$2,815,000	\$273,000	\$2,531,000	37	\$1,539,000	\$5,618,000
	Tri-County Airport	1J0	Bonifay	\$5,230,000	\$1,240,000	\$5,698,000	102	\$3,675,000	\$12,168,000
	Carrabelle-Thompson Airport	X13	Carrabelle	\$267,000	\$72,000	\$327,000	6	\$228,000	\$666,000
	Bob Sikes Airport	CEW	Crestview	\$456,292,000	\$4,752,000	\$294,665,000	3,056	\$159,345,000	\$755,708,000
	Defuniak Springs Airport	54J	Defuniak Springs	\$6,910,000	\$2,892,000	\$8,414,000	139	\$5,370,000	\$18,216,000
	Destin Executive Airport	DTS	Destin	\$28,566,000	\$47,517,000	\$67,948,000	1,309	\$40,856,000	\$144,030,000
	Marianna Municipal Airport	MAI	Marianna	\$19,409,000	\$4,463,000	\$20,442,000	317	\$12,945,000	\$44,314,000
	Peter Prince Field	2R4	Milton	\$2,100,000	\$16,772,000	\$18,437,000	422	\$11,522,000	\$37,309,000
	Fort Walton Beach Airport	1J9	Navarre	\$0	\$158,000	\$151,000	4	\$93,000	\$309,000
	Wakulla County Airport	2J0	Panacea	\$5,000	\$16,000	\$21,000	0	\$14,000	\$43,000
	Ferguson Airport	82J	Pensacola	\$9,824,000	\$20,000	\$7,845,000	89	\$4,729,000	\$17,689,000
	Costin Airport	A51	Port St. Joe	\$4,000	\$50,000	\$52,000	1	\$33,000	\$106,000
	Quincy Municipal Airport	2J9	Quincy	\$1,568,000	\$186,000	\$1,573,000	27	\$996,000	\$3,327,000
4	Belle Glade State Municipal Airport	X10	Belle Glade	\$8,918,000	\$4,000	\$7,500,000	108	\$5,247,000	\$16,422,000
	Boca Raton Airport	BCT	Boca Raton	\$165,151,000	\$67,252,000	\$201,589,000	3,055	\$135,203,000	\$433,992,000
	Downtown Fort Lauderdale Heli-stop	DT1	Fort Lauderdale	\$332,000	\$35,000	\$346,000	7	\$278,000	\$713,000
	Fort Lauderdale Executive Airport	FXE	Fort Lauderdale	\$1,034,709,000	\$131,301,000	\$925,265,000	12,708	\$578,721,000	\$2,091,276,000
	Treasure Coast International Airport	FPR	Fort Pierce	\$183,795,000	\$97,221,000	\$228,633,000	3,403	\$154,388,000	\$509,649,000
	North Perry Airport	HWO	Hollywood	\$41,330,000	\$20,370,000	\$57,424,000	1,163	\$40,254,000	\$119,123,000
	Palm Beach County Glades Airport	PHK	Pahokee	\$3,919,000	\$7,223,000	\$10,890,000	201	\$7,559,000	\$22,032,000
	Pompano Beach Airpark	PMP	Pompano Beach	\$41,810,000	\$26,144,000	\$65,889,000	1,054	\$44,575,000	\$133,843,000
	Sebastian Municipal Airport	X26	Sebastian	\$18,319,000	\$10,045,000	\$25,904,000	426	\$17,602,000	\$54,268,000
	Witham Field	SUA	Stuart	\$461,877,000	\$347,000	\$324,216,000	3,222	\$204,932,000	\$786,440,000
	New Hibiscus Airpark	X52	Vero Beach	\$176,000	\$6,000	\$213,000	4	\$147,000	\$395,000
	Vero Beach Regional Airport	VRB	Vero Beach	\$755,526,000	\$31,729,000	\$533,945,000	5,522	\$338,820,000	\$1,321,201,000
	North Palm Beach County General Aviation Airport	F45	West Palm Beach	\$17,042,000	\$7,399,000	\$20,468,000	312	\$13,708,000	\$44,910,000
	Palm Beach County Park Airport	LNA	West Palm Beach	\$31,587,000	\$9,616,000	\$33,184,000	523	\$22,024,000	\$74,386,000
5	Orlando Apopka Airport	X04	Apopka	\$0	\$414,000	\$375,000	8	\$260,000	\$788,000
	Bob White Field	X61	Deland	\$758,000	\$84,000	\$829,000	13	\$509,000	\$1,672,000
	Deland Municipal - Sidney H Taylor Field	DED	Deland	\$313,704,000	\$29,720,000	\$370,281,000	3,839	\$259,736,000	\$713,705,000
	Marion County Airport	X35	Dunnellon	\$17,338,000	\$7,072,000	\$20,022,000	333	\$13,320,000	\$44,432,000
	Leesburg International Airport	LEE	Leesburg	\$59,112,000	\$2,593,000	\$47,816,000	556	\$31,190,000	\$109,522,000
	Merritt Island Airport	COI	Merritt Island	\$15,970,000	\$16,626,000	\$29,955,000	501	\$20,507,000	\$62,551,000
	New Smyrna Beach Municipal Airport	EVN	New Smyrna Beach	\$67,442,000	\$22,930,000	\$81,531,000	1,281	\$61,700,000	\$171,903,000
	Ocala International-Jim Taylor Field	OCF	Ocala	\$17,385,000	\$18,596,000	\$33,087,000	613	\$22,950,000	\$69,068,000
	Kissimmee Gateway Airport	ISM	Orlando	\$77,833,000	\$20,684,000	\$92,426,000	1,576	\$62,280,000	\$190,943,000

FDOT District	Airport Name	Airport Code	Associated City	On-Airport Activity Impact (\$)	Visitor Spending Impact (\$)	Multiplier Impacts (\$)	Total Employment (no.)	Total Payroll (\$)	Total Economic Impact / Output (\$)
	Executive Airport	ORL	Orlando	\$263,595,000	\$54,001,000	\$305,318,000	4,537	\$210,216,000	\$622,914,000
	Ormond Beach Municipal Airport	OMN	Ormond Beach	\$20,678,000	\$7,672,000	\$27,959,000	426	\$18,654,000	\$56,309,000
	Flagler Executive Airport	FIN	Palm Coast	\$41,544,000	\$35,664,000	\$72,808,000	1,343	\$48,744,000	\$150,017,000
	Pierson Municipal Airport	2J8	Pierson	\$242,000	\$146,000	\$390,000	9	\$297,000	\$778,000
	Tavares Seaplane Base	FA1	Tavares	\$23,052,000	\$152,000	\$16,145,000	161	\$9,493,000	\$39,349,000
	Arthur Dunn Air Park	X21	Titusville	\$1,751,000	\$2,513,000	\$4,001,000	76	\$2,856,000	\$8,266,000
	Space Coast Regional Airport	TIX	Titusville	\$55,311,000	\$10,564,000	\$54,455,000	826	\$36,844,000	\$120,329,000
	Umatilla Municipal Airport	X23	Umatilla	\$9,735,000	\$1,314,000	\$8,822,000	112	\$5,455,000	\$19,871,000
	Valkaria Airport	X59	Valkaria	\$19,501,000	\$12,096,000	\$26,886,000	435	\$18,460,000	\$58,483,000
6	Miami Homestead General Aviation Airport	X51	Homestead	\$2,200,000	\$2,900,000	\$1,800,000	87	\$3,900,000	\$6,900,000
	The Florida Keys Marathon International Airport	MTH	Marathon	\$34,656,000	\$19,685,000	\$51,898,000	785	\$38,537,000	\$106,239,000
	Dade-Collier Training and Transition Airport	TNT	Miami	\$0	\$977,000	\$1,452,000	30	\$1,280,000	\$2,428,000
	Miami Executive Airport	TMB	Miami	\$48,700,000	\$7,200,000	\$25,400,000	993	\$51,700,000	\$81,300,000
	Miami Seaplane Base	X44	Miami	\$5,883,000	\$1,000	\$5,000,000	66	\$3,460,000	\$10,884,000
	Miami-Opa Locka Executive Airport	OPF	Miami	\$751,000,000	\$16,500,000	\$329,300,000	6,867	\$388,700,000	\$1,096,800,000
7	Pilot Country Airport	X05	Brooksville	\$397,985,000	\$7,663,000	\$374,581,000	4,431	\$209,061,000	\$780,229,000
	Brooksville-Tampa Bay Regional Airport	BKV	Brooksville	\$88,000	\$94,000	\$192,000	3	\$134,000	\$374,000
	Clearwater Air Park	CLW	Clearwater	\$5,981,000	\$4,337,000	\$10,131,000	169	\$6,250,000	\$20,449,000
	Crystal River-Captain Tom Davis Field	CGC	Crystal River	\$1,613,000	\$2,342,000	\$4,087,000	78	\$2,861,000	\$8,042,000
	Inverness Airport	INF	Inverness	\$2,406,000	\$2,416,000	\$4,835,000	83	\$3,417,000	\$9,657,000
	Plant City Airport	PCM	Plant City	\$16,292,000	\$1,239,000	\$20,985,000	327	\$17,858,000	\$38,515,000
	Albert Whitted Airport	SPG	St. Petersburg	\$25,405,000	\$16,727,000	\$37,572,000	665	\$26,529,000	\$79,703,000
	Peter O Knight Airport	TPF	Tampa	\$48,170,000	\$6,530,000	\$59,700,000	857	\$47,135,000	\$114,400,000
	Tampa Executive Airport	VDF	Tampa	\$36,630,000	\$35,619,000	\$75,436,000	1,297	\$55,122,000	\$147,686,000
	Zephyrhills Municipal Airport	ZPH	Zephyrhills	\$53,545,000	\$5,194,000	\$47,537,000	629	\$30,360,000	\$106,276,000
Total				\$9,123,744,000	\$1,327,407,000	\$8,020,818,000	108,473	\$5,417,045,000	\$18,471,965,000

Note: All values presented in 2017 dollars. Sources: EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model. Table only includes on-airport activity and visitor spending impacts.

B. Total Economic Impacts by FDOT District

The following set of tables summarize the multi-regional analysis that was conducted for on-airport activity, visitor spending, and the two categories of impacts combined. The multi-regional analysis considered not only the multiplier effects within an FDOT District, but also the spillover multiplier effects that occur in all other FDOT Districts, i.e. the Rest of Florida.

Table B-1. Economic Contribution of On-Airport Activity and Visitor Spending by FDOT District – Commercial Service and General Aviation Airports

FDOT District	Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
1	Direct	80,097	\$2,480,072,000	\$6,944,479,000
	Supplier Purchases	14,984	\$687,207,000	\$2,001,993,000
	Employee Spending	17,469	\$690,930,000	\$2,193,564,000
	FDOT District Total	112,550	\$3,858,210,000	\$11,140,036,000
2	Direct	26,987	\$1,246,068,000	\$5,437,494,000
	Supplier Purchases	9,300	\$491,326,000	\$1,366,311,000
	Employee Spending	11,708	\$485,967,000	\$1,514,368,000
	FDOT District Total	47,994	\$2,223,361,000	\$8,318,173,000
3	Direct	22,544	\$671,474,000	\$2,440,869,000
	Supplier Purchases	5,035	\$205,297,000	\$647,475,000
	Employee Spending	5,372	\$199,365,000	\$662,870,000
	FDOT District Total	32,951	\$1,076,136,000	\$3,751,214,000
4	Direct	134,075	\$5,250,459,000	\$17,252,571,000
	Supplier Purchases	40,598	\$2,058,354,000	\$5,883,117,000
	Employee Spending	43,833	\$1,869,519,000	\$5,834,464,000
	FDOT District Total	218,506	\$9,178,332,000	\$28,970,152,000
5	Direct	232,012	\$8,847,703,000	\$26,138,224,000
	Supplier Purchases	68,641	\$3,137,624,000	\$9,191,567,000
	Employee Spending	84,161	\$3,415,241,000	\$10,840,084,000
	FDOT District Total	384,814	\$15,400,568,000	\$46,169,875,000
6	Direct	159,607	\$5,082,719,000	\$31,612,621,000
	Supplier Purchases	58,646	\$1,925,613,000	\$166,550,000
	Employee Spending	60,939	\$5,119,790,000	\$3,457,804,000
	FDOT District Total	279,192	\$12,128,122,000	\$35,236,976,000
7	Direct	91,169	\$2,937,729,000	\$9,740,966,000
	Supplier Purchases	23,966	\$1,214,119,000	\$3,480,656,000
	Employee Spending	29,460	\$1,287,023,000	\$4,000,634,000
	FDOT District Total	144,595	\$5,438,871,000	\$17,222,257,000
All Regions	Rest of Florida	67,358	\$3,461,321,000	\$11,938,057,000
Total		1,287,960	\$52,764,921,000	\$162,746,740,000



Table B-2. On-Airport Activity Regional and Rest of State Impacts – Commercial Service and General Aviation Airports

FDOT District	Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
1	Direct	10,569	\$644,752,000	\$1,776,598,000
	Supplier Purchases	3,820	\$207,758,000	\$524,539,000
	Employee Spending	4,773	\$188,629,000	\$598,009,000
	Rest of Florida	3,488	\$179,364,000	\$564,868,000
	FDOT District Total	22,650	\$1,220,502,000	\$3,464,014,000
2	Direct	12,106	\$848,353,000	\$4,154,534,000
	Supplier Purchases	6,242	\$352,293,000	\$951,016,000
	Employee Spending	8,072	\$335,100,000	\$1,044,054,000
	Rest of Florida	4,589	\$257,314,000	\$894,506,000
	FDOT District Total	31,009	\$1,793,060,000	\$7,044,109,000
3	Direct	5,340	\$273,809,000	\$1,158,189,000
	Supplier Purchases	2,169	\$96,855,000	\$283,991,000
	Employee Spending	2,270	\$84,197,000	\$279,942,000
	Rest of Florida	2,141	\$112,738,000	\$351,605,000
	FDOT District Total	11,919	\$567,599,000	\$2,073,727,000
4	Direct	28,874	\$1,838,547,000	\$7,322,600,000
	Supplier Purchases	16,391	\$892,362,000	\$2,437,599,000
	Employee Spending	16,393	\$699,200,000	\$2,182,320,000
	Rest of Florida	7,297	\$375,237,000	\$1,246,773,000
	FDOT District Total	68,955	\$3,805,346,000	\$13,189,292,000
5	Direct	61,683	\$3,745,036,000	\$10,725,582,000
	Supplier Purchases	29,585	\$1,429,022,000	\$3,907,443,000
	Employee Spending	35,764	\$1,439,246,000	\$4,572,254,000
	Rest of Florida	7,157	\$391,028,000	\$1,322,967,000
	FDOT District Total	134,189	\$7,004,332,000	\$20,528,246,000
6	Direct	45,716	\$2,342,230,000	\$18,197,792,000
	Supplier Purchases	21,616	\$876,023,000	\$37,012,000
	Employee Spending	22,968	\$2,718,850,000	\$1,639,312,000
	Rest of Florida	179	\$8,415,000	\$27,100,000
	FDOT District Total	90,479	\$5,945,518,000	\$19,901,216,000
7	Direct	16,034	\$889,766,000	\$3,115,250,000
	Supplier Purchases	7,420	\$401,723,000	\$1,104,567,000
	Employee Spending	8,968	\$391,824,000	\$1,216,723,000
	Rest of Florida	2,256	\$103,764,000	\$377,062,000
	FDOT District Total	34,678	\$1,787,077,000	\$5,813,602,000
Total		393,879	\$22,123,434,000	\$72,014,206,000



Table B-3. Regional and Statewide Economic Impacts of Visitor Spending - Commercial Service and General Aviation Airports

FDOT District	Impact Type	Jobs (no.)	Payroll (\$)	Output (\$)
1	Direct	69,527	\$1,835,320,000	\$5,167,881,000
	Supplier Purchases	11,164	\$479,450,000	\$1,477,454,000
	Employee Spending	12,696	\$502,302,000	\$1,595,555,000
	FDOT District Total	93,387	\$2,817,072,000	\$8,240,890,000
2	Direct	14,881	\$397,715,000	\$1,282,961,000
	Supplier Purchases	3,057	\$139,033,000	\$415,295,000
	Employee Spending	3,636	\$150,867,000	\$470,314,000
	FDOT District Total	21,574	\$687,615,000	\$2,168,570,000
3	Direct	17,204	\$397,665,000	\$1,282,680,000
	Supplier Purchases	2,866	\$108,442,000	\$363,484,000
	Employee Spending	3,103	\$115,167,000	\$382,928,000
	FDOT District Total	23,173	\$621,275,000	\$2,029,093,000
4	Direct	105,201	\$3,411,912,000	\$9,929,971,000
	Supplier Purchases	24,207	\$1,165,992,000	\$3,445,518,000
	Employee Spending	27,441	\$1,170,319,000	\$3,652,144,000
	FDOT District Total	156,848	\$5,748,224,000	\$17,027,633,000
5	Direct	170,329	\$5,102,667,000	\$15,412,643,000
	Supplier Purchases	39,056	\$1,708,602,000	\$5,284,124,000
	Employee Spending	48,396	\$1,975,994,000	\$6,267,829,000
	FDOT District Total	257,782	\$8,787,264,000	\$26,964,596,000
6	Direct	113,891	\$2,740,488,000	\$13,414,829,000
	Supplier Purchases	37,030	\$1,049,590,000	\$129,538,000
	Employee Spending	37,971	\$2,400,940,000	\$1,818,492,000
	FDOT District Total	188,892	\$6,191,019,000	\$15,362,859,000
7	Direct	75,135	\$2,047,963,000	\$6,625,716,000
	Supplier Purchases	16,546	\$812,396,000	\$2,376,089,000
	Employee Spending	20,492	\$895,199,000	\$2,783,911,000
	FDOT District Total	112,173	\$3,755,558,000	\$11,785,717,000
All Regions	Rest of Florida	40,251	\$2,033,461,000	\$7,153,176,000
Total		894,080	\$30,641,488,000	\$90,732,534,000

Note for all tables: All values presented in 2017 dollars. Sources for all tables: Airline Data, Inc, 2017; The Economic Impacts of Miami International Airport and the GA Airports within the Miami-Dade County Airport System. 2017. Martin Associates; Melbourne International Airport Economic Impact Study. 2015. Florida Institute of Technology College of Aeronautics.; EIS Surveys. 2017. Kimley-Horn.; Calculations by EDR Group in 2018 using the 2016 IMPLAN model.



C. Case Studies

The FDOT Aviation and Spaceports Office developed ten case studies describing real-life examples of the economic impact that Florida's airports have on their communities. These case studies highlight unique aspects of Florida's aviation industry and provide a qualitative description of how the aviation industry impacts Florida's businesses and communities.



ULTRA-LOW-COST CARRIERS - INNOVATIVE AIRLINES ARE MAKING NEW CONNECTIONS IN FLORIDA AND BEYOND

Since airline deregulation in 1978, two distinct airline business models have emerged: network carriers and low-cost carriers (LCCs). The LCC business model has seen tremendous growth over the past two decades. Southwest Airlines and JetBlue Airways in the U.S. and Ryanair in Europe are pioneers of this model. The LCC model focuses on cost saving operational practices, such as operating at secondary airports in close proximity to larger markets (for example, flying to Sanford, FL, which is approximately 24 miles from Orlando International Airport), operating single aircraft type, high aircraft utilization rates, direct sales, single class offering, and low labor costs. LCCs have on average 20 to 40 percent lower unit cost versus other carriers, which results in lower fares, subsequently stimulating traffic. As they have grown, LCCs have been diversifying their product offerings to suit varying passenger tastes. Over the past decade or so, a subset of LCCs has emerged: ultra-low-cost carriers (ULCCs), which includes carriers such as Spirit Airlines, Allegiant Air, and Frontier Airlines, all of which offer extensive service at Florida airports. ULCCs employ cost-saving measures similar to LCCs, but they differentiate themselves by focusing on potentially underserved airports and that have previously been ignored by traditional airlines. Instead of focusing on larger destinations with established demand, ULCCs bet that their ultra-low fares will stimulate new demand and create new passengers at smaller destinations. ULCCs frequently offer seasonal or less-than-daily service as a cost saving measure and as a way to stay adaptable, allowing the airlines to quickly change routes and serve new destinations.



ULCCs in Florida - An Expanding Industry

ULCCs play an important role in Florida's overall commercial aviation landscape. Miramar, FL-based Spirit Airlines operates at five Florida airports and three of Allegiant's four busiest airports are in Florida: Orlando-Sanford International, Punta Gorda, and St. Pete-Clearwater International. In fact, Allegiant has more passengers and scheduled departures from Orlando-Sanford and St. Pete-Clearwater each than from their headquarters airport in Las Vegas. Statewide, ULCCs have helped shape and develop commercial airports that otherwise might not have passenger service. In 2016, Elite Airways, a ULCC that uses Melbourne International Airport as its hub, started service from Vero Beach Regional Airport to four full-time destinations and one seasonal destination.



Case Study

FLORIDA DEPARTMENT OF TRANSPORTATION

STATEWIDE AVIATION



Economic Impact Study

ULCCs and the Tourism Industry Help Florida Grow

In addition to providing Florida's residents with benefits, ULCCs also serve a key role in one of Florida's major economic drivers: out-of-state tourism. In 2017, Florida welcomed a record 116.5 million out-of-state visitors. Approximately 50% of all of Florida's out-of-state visitors come by air and ULCCs' extensive out of state route networks are vital for continuing to bring people to our state. ULCCs offer a cost-effective way to vacation in Florida and these visiting tourists have economic benefits far outside the airport fence. Despite the fact that Florida's dynamic airport system plays such a significant role in bringing in out-of-state visitors, people aren't coming here for our airports – they're coming for the beaches, amusement parks, business connections, winter homes, ecotourism opportunities... the list goes on and on. VISIT FLORIDA estimates that Florida's out-of-state visitors spent \$112 billion at Florida-based businesses in 2016, resulting in direct support of 875,722 jobs with \$27.9 billion in payroll.

BY THE NUMBERS

Allegiant Airlines

- *Three of Allegiant's four busiest airports are located in Florida: Orlando-Sanford International, Punta Gorda Airport, and St. Pete-Clearwater International*
- *Allegiant also offers nonstop flights to 18 destinations from Destin-Fort Walton Beach Airport*

Elite Airways

- *Uses Melbourne International Airport as its hub*
- *Since 2016, has offered service from Vero Beach Regional Airport to four full-time destinations*

Spirit Airlines

- *Headquarters located in Miramar, Florida*



Overview

Over the past few years, ULCCs have demonstrated profit margins at the top of the aviation industry, validating their business model and showing signs that they are here to stay. Not only are ULCCs experiencing higher profit margins than their network carrier counterparts, ULCCs are helping to reshape fares in some markets. As noted in a 2017 article in The New York Times, the entrance of a ULCC to a market results in a notable decrease in fares on similar routes (Maidenberg, 2017). The prominence of ULCCs in Florida is most likely having positive impacts far beyond just the ULCCs' customers as more competition from lower-fared airlines helps to keep rising ticket prices in check throughout the state.

Image Sources: Punta Gorda Airport, Elite Airways, St. Pete-Clearwater International Airport, Spirit Airlines



ANCHOR TENANTS - BIG BUSINESS AT FLORIDA AIRPORTS

At many of Florida's larger airports, there is a wide array of services, facilities, and tenants on the airport. While smaller airports also have their own unique blend of services and tenants, many of these smaller airports often have one or two major anchor tenants that drive economic development and growth. An anchor tenant is a large tenant that drives much of the economic development and growth potential at an airport. Larger airports can have anchor tenants as well, but are less reliant on them as one of the few sources, if not the primary source, of revenue for the airport. Anchor tenants come in many shapes and sizes and offer a variety of services to the aviation community in Florida and around the world.

Lake City Gateway Airport - Little Airport, Big Time MRO

Located in north Florida near the junction of I-10 and I-75, Lake City Gateway Airport is home to HAECO, a maintenance, repair, and overhaul (MRO) provider with four major locations in the U.S. At their Lake City Gateway location, HAECO provides airframe services and a strip-and-paint shop. HAECO's Lake City facilities include over 600,000 square feet of covered hangars, 1.3 million square feet in ramp area, six MRO hangars, a paint hangar, and they even pay for and maintain the airport's air traffic control tower. HAECO's 2016 expansion resulted in the addition of over 400 new high-skill, high-paying jobs. A partnership between the Columbia County School District, HAECO Americas, the Northeast Florida Education Consortium, and the City of Lake City (owner and operator of Lake City Gateway) recently resulted in the creation of the North Florida Aviation Academy which helps train a workforce for HAECO or for any similar company across the country.



Pompano Beach Airpark - Home of the Goodyear Blimp

With 120 based aircraft and almost 170,000 annual operations, Pompano Beach Airpark is Florida's 3rd busiest general aviation airport in terms of operations. Of those based aircraft, one is much larger than the others: the Goodyear Blimp. Goodyear has based one of their blimps at Pompano continuously since 1979. They currently lease a 32.5 acre parcel that includes a 45,000 square foot hangar and 3,500 square feet of office space. While the Goodyear Blimp is probably most famous for providing aerial coverage of large sporting events, it also has a history of providing crucial assistance during natural disasters. When Hurricane Andrew struck the state in 1992, the Goodyear Blimp was called upon to hover above Miami, displaying directions to relief supply stations on its external electronic message board.



Pensacola International Airport - Where Big Jets Go For Maintenance and Modification

Florida's 10th busiest commercial service airport in terms of passenger volume, Pensacola International Airport, has recently added a large anchor tenant. ST Engineering-Aerospace, an Alabama-based aircraft maintenance and modification provider, signed a lease with the airport to develop facilities. ST Engineering-Aerospace currently has 173,000 square feet of hangar space on 19 acres. Their hangar is large enough to fit two Boeing 777s, four Boeing 757s, and six Airbus 320s. The original estimates when ST Engineering-Aerospace signed their lease with Pensacola was that the development would create 400 new jobs, each paying between \$30,000 and \$58,000 per year. There are plans for an additional 775,000 square feet of facilities, including more hangars, a distribution warehouse, and an administration building. In mid-2018, Pensacola International Airport was awarded a \$56 million grant to expand the ST Engineering-Aerospace's facilities. This is expected to bring in up to 1,700 new jobs to the area.



Melbourne International Airport - A Brazilian Connection

In 2008 Melbourne International Airport, located on Florida's Space Coast, became home to Brazilian jet maker Embraer's new assembly plant. Embraer originally assembled only the Phenom 100 aircraft at Melbourne but that has since grown to include the Phenom 300, Legacy 450, and Legacy 500 business jets, in addition to the original Phenom 100. Embraer Executive Jets – the company's business jet division – is now headquartered at Melbourne International Airport and employs nearly 850 people. While Melbourne International Airport had already been home to many large tenants, including major facilities for global aerospace companies such as Harris, Rockwell Collins, Northrop Grumman, and Florida Institute of Technology's training aircraft fleet, Embraer brings yet another dimension to an airport that continues to shine as one of the State's most preeminent examples of economic development.

Zephyrhills Municipal Airport - Skydiving Central

Located about 30 miles northeast of Tampa, Zephyrhills Municipal Airport is home to Skydive City, one of the most well known skydiving centers in the sport's community. The center offers training and instruction for every level of skydiver, from beginners to seasoned veterans, and also supports all types of skydiving activity, including tandem jumps, group jumps, camera training, and even water landings. Skydive City regularly hosts major skydiving events, festivals, and competitions. The center reports that it accommodates approximately 70,000 jumps annually, performed by divers from 80 different countries and all 50 states. Skydive City's activities also support a small constellation of other skydiving-related companies at the airport, including a jumpsuit manufacturer, a skydiving equipment manufacturer, and a skydiving equipment retailer. With all of these resources, Skydive City has turned Zephyrhills Municipal Airport into one of the world's premier skydiving destinations.

BY THE NUMBERS

Pensacola International Airport

- *VT Mobile Aerospace Engineering is estimated to have created nearly 400 jobs paying \$30,000 to \$58,000 per year*

Lake City Gateway Airport

- *HAECO airframe services operation has created over 400 high-skill jobs*

Zephyrhills Municipal Airport

- *Skydive City accommodates approximately 70,000 jumps annually, performed by divers from 80 countries and all 50 states*

Melbourne International Airport

- *Embraer's Executive Jets division employs nearly 850 people*

Pompano Beach Airpark

- *Home to one of only three Goodyear's blimp bases*





AIR CARGO IS BIG BUSINESS BEHIND THE SCENES AT FLORIDA AIRPORTS

With its 20 commercial service airports, ideal climate, and geographic proximity to Latin America, Florida has grown into one of the United States' busiest gateways for air cargo. In 2015 alone, Florida airports handled 2.74 million tons of cargo. More recently, in 2017, Florida ranked second among all states in terms of tonnage imported into the U.S. by air from international markets and fourth in exports. Overall, total trade valued at more than \$51 billion passed through Florida airports. Although perhaps less visible than other sectors of the aviation industry, such as commercial airlines or flight schools, air cargo operations represent an important and lucrative piece of the economic pie for Florida airports.

Miami International Airport - Flower Power

Miami International Airport (MIA) alone handles 80.7 percent of all goods arriving to or leaving from Florida, positioning itself among the most important airports in the country for air cargo. The airport specializes in handling perishable goods like fish, fruits, vegetables, and flowers, which represent almost three quarters of MIA's air cargo imports. In particular, MIA processes more cut flowers than any other airport in the U.S., accounting for about 85 percent of all flowers imported to the country. On any given day, MIA process about 40,000 boxes of imported flowers, most of which come from Latin America. These flower imports have led to the formation of a vibrant cluster of industries and services in the Miami area. Importers, florists, brokers, transportation companies, and other businesses involved in the flower trade employ about 6,100 people in Miami, with about 75 percent of these companies being located near the airport itself.

The best time to witness the flower import industry in action at MIA is just before Valentine's Day. In the week before the holiday, the United States' flower industry ramps up operations to meet the nationwide demand for red roses, the majority of which are imported from Latin America. Air freighters from countries like Columbia arrive at MIA carrying nothing but flowers. After clearing customs, the flowers are trucked to one of the refrigerated warehouses near the airport, where they are cooled to 35°F to keep them from blooming. Workers then assemble the roses into bunches and wrap them. On the next day, the flowers are loaded onto refrigerated trucks and within a matter of hours or a few days, they are delivered to retailers and flower shops across the country. The next time you buy flowers, remember there is a good chance they came through Miami International Airport!

Kennedy Space Center - FedEx Makes Moves

In 2017, Space Florida announced that FedEx's cargo airline would begin using the Kennedy Space Center's shuttle landing facility (SLF). The SLF is one of the longest runways in the world, stretching 2.8 miles. Florida's so-called Space Coast region will benefit from having the logistics and cargo-related services FedEx provides. FedEx first formed a partnership with Space Florida in 2015 when it landed a Boeing 757 on the SLF. The company provides shipping and logistics services through FedEx Space Solutions. FedEx supports biomedical experimentation and other space activities by shipping aircraft supplies and exomedicine materials, which are studied in a zero-gravity environment.





Case Study

FLORIDA DEPARTMENT OF TRANSPORTATION

STATEWIDE AVIATION



Economic Impact Study

Ocala International-Jim Taylor Field - In the Heart of Horse Country

Ocala, Florida is known as the “Horse Capital of the World.” In 2017, 17 of the 20 horses in the Kentucky Derby had trained in Ocala. The horse industry represents a vital part of the economy in Ocala and Marion County, with a 2015 study commissioned by the Ocala/Marion County Chamber & Economic Partnership finding that the industry had an economic impact of \$2.62 billion on the area. In total, more than 100 equestrian related businesses are found in Ocala, ranging from blacksmiths to horse farms. Horse auctions and events in Ocala routinely attract visitors from all around the country and even the world. These visitors often arrive via Ocala International-Jim Taylor Field (OCF). But the airport isn’t just used by people involved in the horse industry, it is also used to transport horses. Several companies provide ad hoc horse air service to and from Ocala, including one company which operates a Boeing 737 specially designed for equine passengers.

Located right across the street from OCF is the Ocala Breeders’ Sales Company, an industry leader which sold 3,100 horses for \$142 million in 2014. Between 2010 and 2019, 61 percent of all horses sold were purchased by non-Floridians. The horse industry continues to grow in Ocala with the construction of the World Equestrian Center (WEC) expected to be completed by the fall of 2019. This 3,000-acre property will include climate-controlled barns, 1,500 horse stalls, 17 outdoor arenas, and an outdoor stadium. WEC will also include a hotel, restaurants, and 18,000 square feet of retail space. OCF officials expect this new world-class facility to attract a significant number of additional visitors to the area, many of whom will use Ocala International-Jim Taylor Field.

BY THE NUMBERS

Ocala International-Jim Taylor Field

- Supports the 100-plus equestrian-related businesses in Marion County
- The horse industry in Marion County is estimated to have \$2.62 billion in economic impact

Kennedy Space Center Shuttle Landing Facility

- 2.8-mile long runway is used by FedEx Express, the largest freight airline in the world

Miami International Airport

- 85 percent of flowers imported to the United States come through MIA
- The flower importing industry employs about 6,100 people in Miami



Overview

The air cargo industry is an important economic driver at airports large and small across Florida. A 2016 study commissioned by the Florida Department of Transportation found there were over 625,000 air freight-related jobs in the state. That same study also found that total sales associated with air cargo-related activity accounted for 6.7 percent of Florida’s entire economic output, proving that Florida airports are a critical link in the supply chain.

Image Sources: Miami Herald, Florida Today, WRUF



EDUCATION INSTITUTIONS IN FLORIDA ARE PREPARING THE NEXT GENERATION OF AVIATION PROFESSIONALS

Aviation companies like air carriers, air traffic management centers, public agencies, and private consulting firms all need a technically educated and experienced workforce. While workforce needs assessments have historically focused on occupations at air carriers (like pilots and flight attendants) and air traffic management centers, it has become increasingly obvious that airports themselves also face workforce shortages nationwide. Educational institutions across Florida are working hard to bridge that gap. Recent data shows that 53 airports in Florida offer aviation education opportunities to address these shortages. The schools themselves range from small flight training operations to fully accredited universities. The programs offered are diverse and include instruction in aviation management, airframe and power mechanics, military air logistics, and pilot training, just to name a few. Below, we profile four universities that are leading the way in aviation education opportunities in Florida.

Embry-Riddle Aeronautical University - The Cutting Edge of Aviation Education

Embry-Riddle Aeronautical University is one of the premier aviation education institutions in the country. Between online students and its two campuses in Daytona Beach, Florida and Prescott, Arizona, Embry-Riddle enrolled nearly 34,000 students in the 2017-2018 academic year. The school offers more than 100 degrees in aviation, engineering, applied science, business, computer science, security and intelligence, and space. Embry-Riddle has 6,338 students at its Daytona Beach campus enrolled in its four colleges, all of which have aviation components. At this campus, located directly adjacent to the runways of Daytona Beach International Airport, hundreds of Embry-Riddle training flights depart and arrive daily. In addition to its traditional degree programs, the university also offers non-degree professional and youth programs, allowing the university to train and prepare students in all aspects of the aviation industry.



Jacksonville University - Getting Down to Business

Founded 33 years ago, the School of Aviation at Jacksonville University (JU) currently enrolls 170 students. The school is divided into two degree programs: Aviation Management and Aviation Management & Flight Operations. Each program offers different tracks that allow students to specialize in a field that interests them. These specializations include airport and airline management, air traffic control, and pilot training (both commercial and military). What makes JU's School of Aviation unique is that it is housed with the Davis College of Business. Therefore, students can earn a business degree, preparing them for careers as well-rounded aviation professionals. According to Captain Matt Tuohy, Director of Aviation, airlines that employ JU graduates like having pilots who understand the business-side of aviation because these airlines often choose their leadership from the pool of employed pilots. JU's business minded aviation programs make sure that students have solid, well rounded educations before they enter the aviation industry workforce.





Lynn University - Smaller School Makes a Big Impact

Lynn University's Burton D. Morgan College of Aeronautics is located in Boca Raton, Florida. The college is close-knit, admitting only 75 students at a time. At Lynn there are degree programs and certificates in air traffic control, aviation operations and security, and flight instruction. In May 2018, Lynn formed a unique partnership with nearby Saint Andrew's School that allows high school students to work toward earning their pilot's license. The program involves three hours of flight time and up to four hours of ground school each week, with instruction taking place after school or on weekends.

Florida Institute of Technology - Worldwide Connections

Located in Melbourne, Florida, the Florida Institute of Technology's (FIT) College of Aeronautics provides education programs in both flight and non-flight aviation careers. Currently home to about 600 students, the college offers over two dozen undergraduate and graduate degrees in various aviation-related fields, including aviation science, aerospace engineering, air traffic control, and aviation management. While FIT is an important part of the local Melbourne economy, it is also vital to the national aviation industry. Recent counts show that at least 36 percent of the students at FIT were from out of state and 47 percent had international backgrounds, showing just how far FIT's impact on the aviation industry reaches.

BY THE NUMBERS

Jacksonville University

- School of Aviation enrolls 170 students
- Offers degrees in aviation management and aviation operations, with specializations in airport management, airline management, and air traffic control

Embry-Riddle Aeronautical University

- Enrolls 6,338 students
- Offers over 50 aviation certificate and degree programs

Florida Institute of Technology

- College of Aeronautics currently enrolls 603 students
- 36 percent of FIT students come from out of state, while 47 percent are international

Lynn University

- Burton D. Morgan College of Aeronautics admits 75 students at a time
- Offers degrees in air traffic control, aviation operations and security, and flight instruction



Overview

The aviation industry has a diverse range of jobs that requires a workforce with an equally diverse range of talent, skills, and abilities. As the industry grows, demand for well-trained professionals will continue to grow along with it. As these four examples show, educational institutions across Florida are ensuring that demand for a dynamic workforce is being met.



EMERGENCY RESPONSE - FLORIDA AIRPORTS STEP UP IN TIMES OF CRISIS

In addition to serving in traditional roles that are obvious to the general public, airports also support many critical services that are not often recognized by local communities. Highways and road networks are often thought of as the backbone of the national transportation network but airports offer an opportunity to access areas that ground-based networks cannot. From air ambulances, medical transport, and emergency medical service (EMS) aircraft to law enforcement, aerial firefighting, disaster response and relief, and search and rescue efforts, airports are often positioned as a key factor in disaster and emergency response. Florida's airports have had the unfortunate chance to prove this time and time again and will continue to do so in the future any time a local, statewide, national, or even international crisis hits. When quick access is needed during times of emergency, Florida's airports are on the front line.



Natural Disasters - Providing Quick Relief

Florida's airport system has been critical in responding before and after natural disasters strike, most recently with Hurricane Irma in 2017 and Hurricane Matthew in 2016. When Hurricane Irma hit, the U.S. Air Force mobilized C-17 cargo transport aircraft from Joint Base Charleston in South Carolina and Dover Air Force Base in Delaware to bring more than 300 doctors, nurses, and medical staff to Orlando International Airport to respond to statewide needs. Airports also often serve as staging grounds for land-based response efforts. Prior to hurricanes, utility companies often stage line and bucket trucks at airports for quick post-storm deployment. Marion County Airport in Dunnellon, FL, had 1,200 line trucks and 600 other vehicles staged on the airport after Irma to aid in regional response. Martin County's Witham Field served a similar role after Hurricane Matthew.



Foreign Aid - Helping Beyond Borders

Following the devastating earthquake that rocked Haiti in early 2010, Florida's airports provided lifesaving support services, including transporting personnel and supplies to and victims from the island nation. Fort Lauderdale Executive Airport served as a critical base to transport supplies and personnel between the U.S. and Haiti following the devastating earthquake. General aviation aircraft were able to land at small airports and in very rural areas inaccessible to many large aircraft with the flexibility to provide immediate aid to the areas where it was most needed.



EMS & Law Enforcement - Keeping Florida Safe

Many of Florida's airports also serve as the home for local EMS and law enforcement aircraft operations. Airports throughout the state support local and regional emergency response activities by police and sheriff helicopters and EMS aircraft. A perfect example is Trauma Hawk in Palm Beach County. Established more than 20 years ago, the Health Care District of Palm Beach County operates two Sikorsky S76-C+ air ambulances, capable of speeds near 180 miles per hour. These two helicopters are used to respond to emergencies across the county's 2,300 square miles – more than any other county in Florida – and bring patients to the county's two trauma centers. The Brevard County Sheriff's Office's Aviation Unit – the Sheriff's Tactical Air Response (STAR) – uses Merrit Island Airport as home for their four OH-58A+ helicopters, one of which is outfitted with fixed-floats to allow for on-water responses throughout the county. In addition to responding to "traditional" calls such as search and rescue, counter drug surveillance, and crimes in progress, STAR also provides increased security overwatch for ships entering and exiting Port Canaveral, assists in enforcing Temporary Flight Restrictions during launch operations from Cape Canaveral Spaceport, and assists during Presidential visits.

BY THE NUMBERS

Marion County Airport

- 1,200 line trucks and 600 other vehicle staged on the airport after Hurricane Irma

Orlando International Airport

- 300 doctors, nurses, and medical staff arrived at the airport from Joint Base Charleston in South Carolina and Dover Air Force Base in Delaware in response to Hurricane Irma

Palm Beach County Airports

- Home to the Trauma Hawks, two Sikorsky S76-C+ air ambulance helicopters used to respond to emergencies across the county's 2,300 square miles- more than any other county in Florida

Fort Lauderdale Executive Airport

- Served as a critical base for transporting supplies and personnel between the U.S. and Haiti following the devastating earthquake on the island in 2010



Overview

Airports across the state serve as crucial bases for a variety of disaster, emergency, and public safety operations. Without Florida's extensive airport system, the brave first responders throughout the state would not have the same ability to protect our residents and visitors on a daily basis. When natural disasters strike – whether a hurricane here in Florida or an earthquake in another country – Florida's airports are poised to serve as the launching point for response and recovery efforts. Florida's airports truly are an essential part of statewide, national, and international emergency response and support.



BIG EVENTS ARE BIG BUSINESS FOR FLORIDA AIRPORTS

Florida's airports receive and host millions of visitors annually for events ranging from the Super Bowl to aviation expositions. These events generate billions of dollars in direct and indirect economic impact for communities all over the state and provide exciting opportunities for visitors from Florida, other states, or countries around the world.

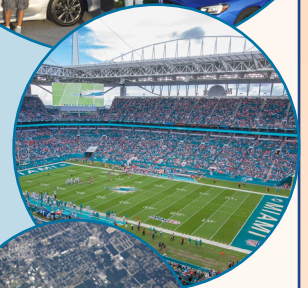
Aviation Expositions - High Flying Fun

There are several aviation expos hosted at Florida's airports, including the U.S. Sport Aviation Expo and Sun 'n Fun. Sebring's U.S. Sport Aviation Expo, hosted at Sebring Regional Airport, is an annual event that draws national and international visitors to the state. The Expo focuses on sport aviation and affordable aircraft, including conventional aircraft, kit planes, and drones. The Expo typically has over 150 aircraft on display and has many unique aspects, including the Young Aviators Zone. The Expo estimates that it attracts more than 18,000 attendees. Lakeland's annual Sun 'n Fun event, hosted at Lakeland Linder Regional Airport, lasts for six days and is estimated to have a \$64 million direct and indirect economic impact on the I-4 corridor in Central Florida, attracting visitors from more than 80 countries. Event organizers estimate that the event generates 10,000 air traffic movements, including visitors flying in to attend the event, making Lakeland the busiest airport in the world for this one week. In addition to their annual event, the Sun 'n Fun Expo Campus hosts events year-round, as well as making more than \$430,000 of scholarship funds available annually to students in Polk County entering an aerospace industry career.



Skydiving - Extreme Sport, Extreme Business

Skydive DeLand, located at DeLand Municipal-Sidney H Taylor Field, has been home to numerous world champions and record holders in skydiving. Skydive DeLand is a destination for skydivers all over the country and flies out between 75,000 and 110,000 jumpers each year. Skydive DeLand estimates that skydiving at DeLand Municipal-Sidney H Taylor Field is supported by 24 companies employing more than 600 local people in manufacturing, sales, technical, and academic jobs. Skydive Sebastian, located at Sebastian Municipal Airport, offers scenic coastal dives for both tandem skydivers and experienced skydivers, as well as offering courses for individuals to earn their skydiving licenses. Skydive Sebastian recently hosted the USPA National Parachuting Championships, an event that drew thousands to the Sebastian area.



Football - A Big Score for Florida

Florida is also home to several large football events which attract thousands of fans to the state, including Super Bowls, regular NFL games, and six college football bowl games, the most of any state. Florida has hosted the Super Bowl on several occasions, most recently Super Bowl XLIV, which was played at Hard Rock Stadium in Miami Gardens. Miami-Opa Locka Executive Airport is the closest airport to Miami Gardens, and hosted a slew of high-profile attendees who increased the average annual income of visitors up to over \$220,000. Super Bowl XLIV generated an estimated \$333 million for South Florida, and an impact study concluded that three out of every four out-of-state visitors left Miami with the desire to return—Super Bowl or no Super Bowl! Also held at the Hard Rock Stadium, the Orange Bowl is a college football playoff game that regularly attracts thousands of fans. The 2017 match up between Wisconsin and Miami attracted 65,326 attendees, with an estimated 50% being from outside of the South Florida area.





Auto Racing - Fast Times at Florida Airports

Daytona International Speedway hosts four NASCAR cup events, the biggest of which is the Daytona 500. One of the most prestigious races on the NASCAR calendar, the Daytona 500 attracts hundreds of thousands of guests and a 2016 estimate states that the Speedway and its events generate \$1.6 billion for the area each year. Homestead's location in South Florida makes it perfect to host NASCAR's final event of the season, the Ford EcoBoost 400, which is held in November. In 2017, the race attracted an estimated 76,000 fans who spent thousands of dollars in the surrounding area.

The Firestone Grand Prix, located in part on Albert Whitted Airport property, is a Verizon IndyCar Series race that, since 2009, has served as the season opener. The race takes place on a temporary course, utilizing downtown streets and two runways of the Albert Whitted Airport. Crowd estimates for the three-day race have been steadily increasing since 2005, reaching the tens of thousands in 2017. According to a 2015 city study, out-of-town visitors contribute to an estimated economic impact of \$48 million.

Sebring Regional Airport is another Florida airport with an auto racing pedigree. The former Army Air Corps training facility was turned over to the city of Sebring at the end of World War II. Shortly thereafter, the airport began hosting auto races, the most notable of which was the 12 Hours of Sebring. This internationally renowned endurance race continues to be held annually, attracting upwards of 100,000 attendees to the four day event.

BY THE NUMBERS

Daytona Beach International Airport

- Located directly adjacent to Daytona International Speedway, whose events generate \$1.6 billion each year

DeLand Municipal-Sydney H Taylor Field

- Skydiving businesses at the airport employ over 600 people

Lakeland Linder Regional Airport

- The annual Sun 'n Fun event generates an estimated \$64 million in local economic impact

Miami-Opa Locka Executive Airport

- During Super Bowl XLIV, the average annual income of out-of-state visitors to the airport was over \$220,000



Overview

Florida's airports receive and host millions of visitors a year for events ranging from Super Bowls to aviation expos to auto races. These events generate billions of dollars in direct and indirect economic impact for communities all over the state and consistently attract visitors from other states and countries around the world.



FLIGHT TRAINING - A CORNERSTONE FOR MANY FLORIDA AIRPORTS

Becoming a pilot opens a world of career possibilities, including those in the military, commercial air service, or agriculture industry. Pilots must be certified, and FAA's rules for getting a pilot's license differ depending on the type of aircraft. There are eligibility, training, experience, and testing requirements for student pilots, recreational pilots, and private pilots. Key among these requirements are flight training requirements, and a multitude of flight training schools have cropped up in Florida to fill this need. Florida has flight training schools meeting potential pilots' basic training needs, but also has specialty pilot schools for agricultural pilots, all-inclusive pilot packages, and international pilots. Over 100 of Florida's airports host flight training services.

Arcadia Municipal Airport - Not Your Usual Flight School

Eagle Vistas Agricultural Flight Training School is a highly specialized school in Arcadia. Eagle Vistas trains pilots specifically for the agriculture industry and offers classes in Ag Pilot Training for pilots with zero flight experience, including a Helicopter Ag Pilot Training program. Eagle Vistas also offers courses in various other Ag Pilot flight programs, including those geared towards experienced pilots seeking their Ag license. Eagle Vistas has been in operation for over 10 years and has over 125 Ag Pilot graduates. Senior mentor Ag Pilots at Eagle Vistas have logged over 25,000 hours in agriculture flights while instructing students.

Peter Prince Field - Panhandle Airport Provides a Variety of Courses

Peter Prince Field has two fixed-base operators (FBOs), Peter Prince Aviation Center (PPAC) and Aircraft Management Services (AMS), which offer FBO services such as fueling and aircraft maintenance, and flight training. Both schools offer full flight training for a breadth of fields, including Private and Commercial Licenses, Instrument, Multi-Engine, and Certified Flight Instructor (CFI). Peter Prince Aviation Center, one of the fastest growing full service FBOs in the U.S., hosts Trident Aircraft, a fully certified FAA Part 141 and Part 61 Flight School. Trident Aircraft offers all-inclusive packages for certificates and ratings, including offering a short syllabus for Navy Initial Flight Screening (IFS) personnel who would like to use their military flying experience to obtain their Private Pilot's License. AMS has a FAA Certified Part 141 Flight School and offers a full curriculum of aviation flight courses. AMS Flight School boasts of over 25 years of experience in flight training for both military and civilian students, with a proven track record as one of the best Part 141 flight schools in Florida and the Southeastern U.S.



Bartow Municipal Airport - Old School Aviation

Flight training has been offered in Florida for almost 50 years, thanks in part to Bartow Flying Service at Bartow Municipal Airport. Bartow Flying Service is a municipally owned and operated FBO/flight training school that has been serving clients for over 45 years, making it one of the oldest flight schools in the state. The flight training school offers a Private Pilot Course, Instrument Course, and Commercial Pilot Course. One unique service the Bartow Flying Service offers are "Discovery Flights." These flights are great for prospective students to experience the school's flight training style, and allow a prospective student to fly a plane (with an instructor as co-pilot) with no experience necessary.

Flagler Executive & Crystal River Airport - Training Pilots from Around the Globe

Flagler Executive Airport recently began hosting its own flight training school, offered by Phoenix East. Since 1972, Phoenix East has trained more than 12,000 pilots who have flown over 30,000 hours as students, and their new school at Flagler Executive Airport will be able to teach an additional 60 students annually. The Phoenix East flight training school is unique from many other flight training schools in the state because it draws students from all around the world. The flight training school reports that over 65% of its students are international, which is particularly important for students who wish to fly internationally during their career. Assisting their students' transition, the school is authorized by the U.S. government to issue visas to international students. Another flight training school with an emphasis on international students is Crystal Aero Group, which offers a flight training school at Crystal River Airport. Many international students enroll in Crystal Aero Group's exclusive Fast Flight program, which was specifically designed for an international student to complete Private Pilot training in 30 days.

BY THE NUMBERS

Peter Prince Field

- *Peter Prince Aviation Center and Aircraft Management Services offer FAA Part 141 and Part 61 flight training*

Flagler Executive Airport

- *Tenant Phoenix East has trained over 12,000 pilots who have flown over 30,000 hours as students.*

Bartow Municipal Airport

- *Municipally owned Bartow Flying Service has been training pilots for over 45 years*

Arcadia Municipal Airport

- *Specializing in agricultural flight training, Eagle Vistas has trained over 125 pilots in its 10 year existence*

Overview

Demand for commercial pilots in the U.S. is growing, driving an influx of students to flight schools around the country. With flight training schools located at many of its public use airports, Florida is well-situated to meet this demand. Florida's many flight schools graduate thousands of pilots a year, who have hundreds of thousands of flight hours under their belt and are ready to enter the aviation industry.





LARGE HUB AIRPORTS LEAD THE WAY IN FLORIDA

When the average person thinks about an airport, chances are they will imagine a big, multi-runway facility with dozens of widebody jets, halls filled with ticket counters, and terminals packed with shops and restaurants. These airports are called commercial service airports and they are usually how the general public interacts with the aviation industry. The Federal Aviation Administration classifies the biggest of the commercial service airports as “large hubs.” Large hub airports are airports which account for one percent or more of all passenger enplanements in the United States. There are only 30 of these types of airport in the entire country, but Florida is home to four of them. In order of total enplaning passengers in 2017, those airports are Orlando International Airport, Miami International Airport, Fort Lauderdale/Hollywood International Airport, and Tampa International Airport. According to a 2014 study commissioned by the Florida Department of Transportation, these four large hub airports alone are home to more than 50 percent of Florida’s 1.3 million airport-related jobs. Additionally, they accommodate about 80 percent of Florida’s 81 million annual passengers, showing just how important large hubs are to aviation in Florida.



Orlando International Airport - Direct to Disney World

Orlando International Airport (MCO) is the busiest airport in Florida in terms of passenger traffic, having hosted about 21.6 million enplaning passengers in 2017. Its location near some of the country’s most popular tourist destinations, such as Disney World and Universal Studios, ensures that the airport has a steady supply of passengers year round. In fact, 75 percent of all passengers at MCO are visitors to Florida. Disney World alone averages 52.5 million visitors per year and many of these guests travel through MCO to reach their destination. The airport is also home to almost 16,000 on-airport jobs. When accounting for the total economic impact of MCO, the airport supports approximately 270,000 direct and indirect jobs.



Miami International - Florida’s Gateway to the World

The second busiest airport in Florida for passenger enplanements is Miami International Airport (MIA); however, Miami is first when it comes to international flights. Among Florida airports, MIA has the largest share of international travel: almost 50 percent of its passengers were on international flights in 2017. The airport offers non-stop flights to 52 destinations in Central and South America, as well as 38 destinations in the Caribbean, proving that MIA is an important gateway to Florida as well as the rest of the United States. The airport provides almost 43,000 on-airport jobs, while its total economic impact supports more than 260,000 direct and indirect jobs in the Miami region.





Fort Lauderdale/ Hollywood International Airport - Florida's Fastest Growing Large Hub

In 2017, Fort Lauderdale/Hollywood International Airport (FLL) was the third busiest airport in Florida, serving 15.8 million passengers. FLL was Florida's fastest growing large hub airport in 2017, especially for international travel, which has grown by double digits in recent years at the airport. International passengers accounted for 18.6 percent of all passengers at FLL in 2017. According to the most recent analysis, FLL supports almost 13,500 direct jobs. When indirect employment is included, that number grows to almost 140,000.

Tampa International Airport - A Domestic Destination

While other large hub airports in Florida support a significant amount of international passengers, Tampa International Airport (TPA) is just as important for domestic travelers. The airport hosted about 9.5 million passenger enplanements in 2017, with almost 91 percent of those passengers traveling domestically. Additionally, about 94 percent of passengers use TPA as the starting or ending point of their trip, making the airport a true gateway to Florida's West Coast. A recent study has shown that TPA provides about 10,000 on-airport jobs, while the airport supports an additionally 80,000 direct and indirect jobs in the Tampa area.

BY THE NUMBERS

Orlando International Airport

- 21.6 million enplanements in 2017
- 16,000 on-airport jobs
- 270,000 direct and indirect jobs

Tampa International Airport

- 9.5 million enplanements in 2017
- 5,300 on-airport jobs
- 80,000 direct and indirect jobs

Fort Lauderdale/Hollywood International Airport

- 15.8 million enplanements in 2017
- 11,000 on-airport jobs
- 140,000 direct and indirect jobs

Miami International Airport

- 20.7 million enplanements in 2017
- 43,000 on-airport jobs
- 260,000 direct and indirect jobs

Overview

With more large hub commercial service airports than any other state, Florida is truly a national leader in commercial aviation. Altogether, these large hubs provide Floridians with hundreds of thousands of jobs, while the numerous out-of-state visitors that pass through their doors ensure that Florida's economy continues to grow.

Image Sources: Fort Lauderdale/Hollywood International Airport, Michael Curi



MILITARY AVIATION IN FLORIDA

With four major Air Force bases, four Naval air stations, and the Coast Guard's largest air station, as well as a variety of auxiliary airfields, command centers, testing ranges, and other support facilities, military aviation has a long and storied history in Florida, not to mention major economic implications. While these military facilities play important roles in their local economies, the economic impact of military aviation extends to public use airports as well, which often accommodate military training operations and support military-related tenant businesses.

Early History - Over 100 Years of Military Aviation

During World War I, as it became apparent that aircraft had wide-reaching applications in combat, the U.S. Army decided to establish multiple facilities to train military aviators. Due to its favorable weather and flat terrain, Florida was chosen as the home for many of these bases. The U.S. Army initially selected four sites in the state: Carlstrom Field, about six miles southwest of Arcadia; Dorr Field, about 12 miles southwest of Arcadia; Valentine Field in Labelle; and Chapman Field in Miami. When Germany surrendered in World War I, Brigadier General Billy Mitchell, commander of American air combat units in France, noted, "the only damage that has come to [Germany] has been through the air." Florida's pilot training sites were credited with producing some of the most skilled pilots that lead to the air superiority of the Allied forces.

1941's attack on Pearl Harbor by the Imperial Japanese Navy Air Service was early proof that World War II would be a battle in the skies as much as it would be on the ground. The U.S. military invested tremendous funding to construct and improve a number of airfields in Florida. By the mid-1940s, there were 40 airfields within Florida where military pilots were being trained. By the end of the war, there were approximately 172 military installations within the state, spanning from Key West to Pensacola. At the same time, as many as two million servicemen and women lived in Florida.

Modern Day - A Continuing Legacy

Upon the end of World War II, many military airfields throughout the state were deactivated and transferred back to local governments. Some were re-purposed for non-aviation use, but most are now operated as commercial service and general aviation airports, which has contributed to the extensive system of 129 public-use airports operating in Florida today. One example is Sarasota-Bradenton International Airport, formerly known as Sarasota Army Airfield, a combat training base for new pilots. The airport was returned to civil use in 1946 after World War II and now serves as a public-use commercial service airport, accounting for over 100,000 annual aircraft operations and almost 1.2 million annual passenger enplanements.

Cecil Field - Exploring the Final Frontier

The most recent former military aviation facility to become a public use airport in Florida is Cecil Airport in Jacksonville. The former Naval Air Station Cecil Field was decommissioned in 1999 and subsequently turned over to what is now the Jacksonville Aviation Authority. Today, Cecil Airport is one of Florida's most dynamic general aviation airports, accommodating over 100,000 aircraft operations per year with 23 based civilian aircraft and 69 based military aircraft. In 2010, Cecil Airport became the second licensed spaceport in Florida, the other being Cape Canaveral Spaceport. However, Cecil is the first Florida spaceport authorized to accommodate space vehicles that take off and land horizontally.



MacDill Air Force Base - Command Central

Located eight miles south of downtown Tampa, MacDill Air Force Base is one of the U.S. military's most important installations. MacDill is home to the headquarters of both the United States Special Operations Command (which oversees the special operations of each service branch) and United States Central Command (which oversees U.S. military activity in the Middle East). MacDill directly employs nearly 15,000 people, including over 4,000 civilians, resulting in an estimated economic impact of \$2.3 billion on the Tampa Bay area.

Eglin Air Force Base - A Unique Arrangement

Encompassing over 460,000 acres, Eglin Air Force base is the largest Air Force base in the United States by land area. Located in Okaloosa County in northwest Florida, Eglin is a center for Air Force weapons development and testing. It is also home to important training units for the Air Force, Army, and Navy. While Eglin itself directly employs over 17,000 servicemen and women and about 6,000 civilians, the 300-plus defense contractors located in Okaloosa County bring the total number of military-related jobs to more than 70,000, resulting in \$7.5 billion dollars in economic impact. In addition to its military role, Eglin also supports commercial aviation in Northwest Florida through a joint-use agreement with Destin-Fort Walton Beach Airport, a commercial airport co-located at Eglin that accommodated over 1.1 million passengers in 2017.

BY THE NUMBERS

Eglin Air Force Base

- *Directly employs 17,000 military personnel and 6,000 civilian personnel*
- *When including the 300-plus military contractors who support Eglin's mission, the total economic impact of the base is estimated at \$7.5 billion*

Cecil Field

- *Founded as a Naval air station in 1941, today Cecil Field accommodates over 100,000 annual operations with 23 based civilian aircraft and 69 based military aircraft*

MacDill Air Force Base

- *Employs nearly 20,000 people, both military and civilian, resulting in approximately \$2.3 billion in economic impact on the Tampa Bay area.*

Military Operations at Public Airports Benefit Florida

Though none of Florida's 26 military aviation facilities – which include 11 major military airfields and 15 supporting facilities – are considered part of Florida's airports system, public use airports throughout the state still support training operations for all branches of the U.S. military and subsequently benefit from the military's use of these public facilities.

Based on the most current information from the Federal Aviation Administration, approximately 63 percent of Florida's public use airports currently report military operations, of which there are nearly 400,000 annually. Additionally, about two-thirds of Florida's airports report hosting based military aircraft, with a total of 222 military aircraft based at Florida airports. These based military aircraft are typically part of the Florida Air National Guard or other reserve units and contribute to the economic impact of the airports through hangar and land leases, fuel sales, and indirect impacts associated with military personnel based at these locations.



ULTRA-LOW-COST CARRIERS - INNOVATIVE AIRLINES ARE MAKING NEW CONNECTIONS IN FLORIDA AND BEYOND

Since airline deregulation in 1978, two distinct airline business models have emerged: network carriers and low-cost carriers (LCCs). The LCC business model has seen tremendous growth over the past two decades. Southwest Airlines and JetBlue Airways in the U.S. and Ryanair in Europe are pioneers of this model. The LCC model focuses on cost saving operational practices, such as operating at secondary airports in close proximity to larger markets (for example, flying to Sanford, FL, which is approximately 24 miles from Orlando International Airport), operating single aircraft type, high aircraft utilization rates, direct sales, single class offering, and low labor costs. LCCs have on average 20 to 40 percent lower unit cost versus other carriers, which results in lower fares, subsequently stimulating traffic. As they have grown, LCCs have been diversifying their product offerings to suit varying passenger tastes. Over the past decade or so, a subset of LCCs has emerged: ultra-low-cost carriers (ULCCs), which includes carriers such as Spirit Airlines, Allegiant Air, and Frontier Airlines, all of which offer extensive service at Florida airports. ULCCs employ cost-saving measures similar to LCCs, but they differentiate themselves by focusing on potentially underserved airports and that have previously been ignored by traditional airlines. Instead of focusing on larger destinations with established demand, ULCCs bet that their ultra-low fares will stimulate new demand and create new passengers at smaller destinations. ULCCs frequently offer seasonal or less-than-daily service as a cost saving measure and as a way to stay adaptable, allowing the airlines to quickly change routes and serve new destinations.



ULCCs in Florida - An Expanding Industry

ULCCs play an important role in Florida's overall commercial aviation landscape. Miramar, FL-based Spirit Airlines operates at five Florida airports and three of Allegiant's four busiest airports are in Florida: Orlando-Sanford International, Punta Gorda, and St. Pete-Clearwater International. In fact, Allegiant has more passengers and scheduled departures from Orlando-Sanford and St. Pete-Clearwater each than from their headquarters airport in Las Vegas. Statewide, ULCCs have helped shape and develop commercial airports that otherwise might not have passenger service. In 2016, Elite Airways, a ULCC that uses Melbourne International Airport as its hub, started service from Vero Beach Regional Airport to four full-time destinations and one seasonal destination.





Case Study

FLORIDA DEPARTMENT OF TRANSPORTATION

STATEWIDE AVIATION



Economic Impact Study

ULCCs and the Tourism Industry Help Florida Grow

In addition to providing Florida's residents with benefits, ULCCs also serve a key role in one of Florida's major economic drivers: out-of-state tourism. In 2017, Florida welcomed a record 116.5 million out-of-state visitors. Approximately 50% of all of Florida's out-of-state visitors come by air and ULCCs' extensive out of state route networks are vital for continuing to bring people to our state. ULCCs offer a cost-effective way to vacation in Florida and these visiting tourists have economic benefits far outside the airport fence. Despite the fact that Florida's dynamic airport system plays such a significant role in bringing in out-of-state visitors, people aren't coming here for our airports – they're coming for the beaches, amusement parks, business connections, winter homes, ecotourism opportunities... the list goes on and on. VISIT FLORIDA estimates that Florida's out-of-state visitors spent \$112 billion at Florida-based businesses in 2016, resulting in direct support of 875,722 jobs with \$27.9 billion in payroll.

BY THE NUMBERS

Allegiant Airlines

- *Three of Allegiant's four busiest airports are located in Florida: Orlando-Sanford International, Punta Gorda Airport, and St. Pete-Clearwater International*
- *Allegiant also offers nonstop flights to 18 destinations from Destin-Fort Walton Beach Airport*

Elite Airways

- *Uses Melbourne International Airport as its hub*
- *Since 2016, has offered service from Vero Beach Regional Airport to four full-time destinations*

Spirit Airlines

- *Headquarters located in Miramar, Florida*



Overview

Over the past few years, ULCCs have demonstrated profit margins at the top of the aviation industry, validating their business model and showing signs that they are here to stay. Not only are ULCCs experiencing higher profit margins than their network carrier counterparts, ULCCs are helping to reshape fares in some markets. As noted in a 2017 article in The New York Times, the entrance of a ULCC to a market results in a notable decrease in fares on similar routes (Maidenberg, 2017). The prominence of ULCCs in Florida is most likely having positive impacts far beyond just the ULCCs' customers as more competition from lower-fared airlines helps to keep rising ticket prices in check throughout the state.

Image Sources: Punta Gorda Airport, Elite Airways, St. Pete-Clearwater International Airport, Spirit Airlines

D. Military Aviation Analysis

Introduction

Military aviation in Florida is a key component in Florida's economy. Due to the geographic location, favorable weather, and over-water airspace, Florida is an ideal location for many military aviation installations. As evidence of this, one of the goals of the Florida Aviation System Plan (FASP), Florida's overarching aviation strategic planning document, emphasizes the importance of military aviation in Florida. "Foster Florida's reputation as a military-friendly state" underscores the continued support of Florida's military installations as a critical component of the state economy.

To support this FASP goal, 2019 Statewide Aviation Economic Impact Study (EIS) (or Study) analyzed and summarized the economic impacts of Florida's 11 military airfields on the local and state economies. The military airfields include four naval air stations (NAS), five air force bases (AFB), one air reserve base (ARB), and one naval station (NS). These installations are identified below and shown in Figure D-1:

- Eglin AFB
- Hurlburt Field
- Homestead ARB
- MacDill AFB
- Patrick AFB
- Tyndall AFB
- NAS Jacksonville
- NAS Key West
- NS Mayport
- NAS Pensacola
- NAS Whiting Field

To better understand the impact that military aviation has on Florida's economy, an analysis was completed to document changes reported in economic activity since the 2014 report. To accomplish this, data from the 2014 Statewide Aviation EIS for each military installation was retrieved and analyzed.

As shown in Table D-1, total personnel and payroll respectively increased by 31 percent and 42 percent between 2014 and 2016, while expenditures (procurement of goods/services, construction, etc.), decreased by just over 12 percent. Potential causes of the decrease in expenditures could be an increasing centralization of payment for military purchases or discrepancies in data reporting methodology.



Table D-1. Overall Statewide Economic Impact Comparison

	2014	2016	Percent Change
Aviation Personnel			
Military	51,363	69,580	35.5%
Civilian	19,986	27,696	38.6%
Contractor	10,959	10,896	0.3%
Total	82,207	108,172	31.6%
Payroll	\$4,517,250,000	\$6,444,195,000	42.7%
Expenditures	\$3,627,735,000	\$3,166,835,000	(12.7%)

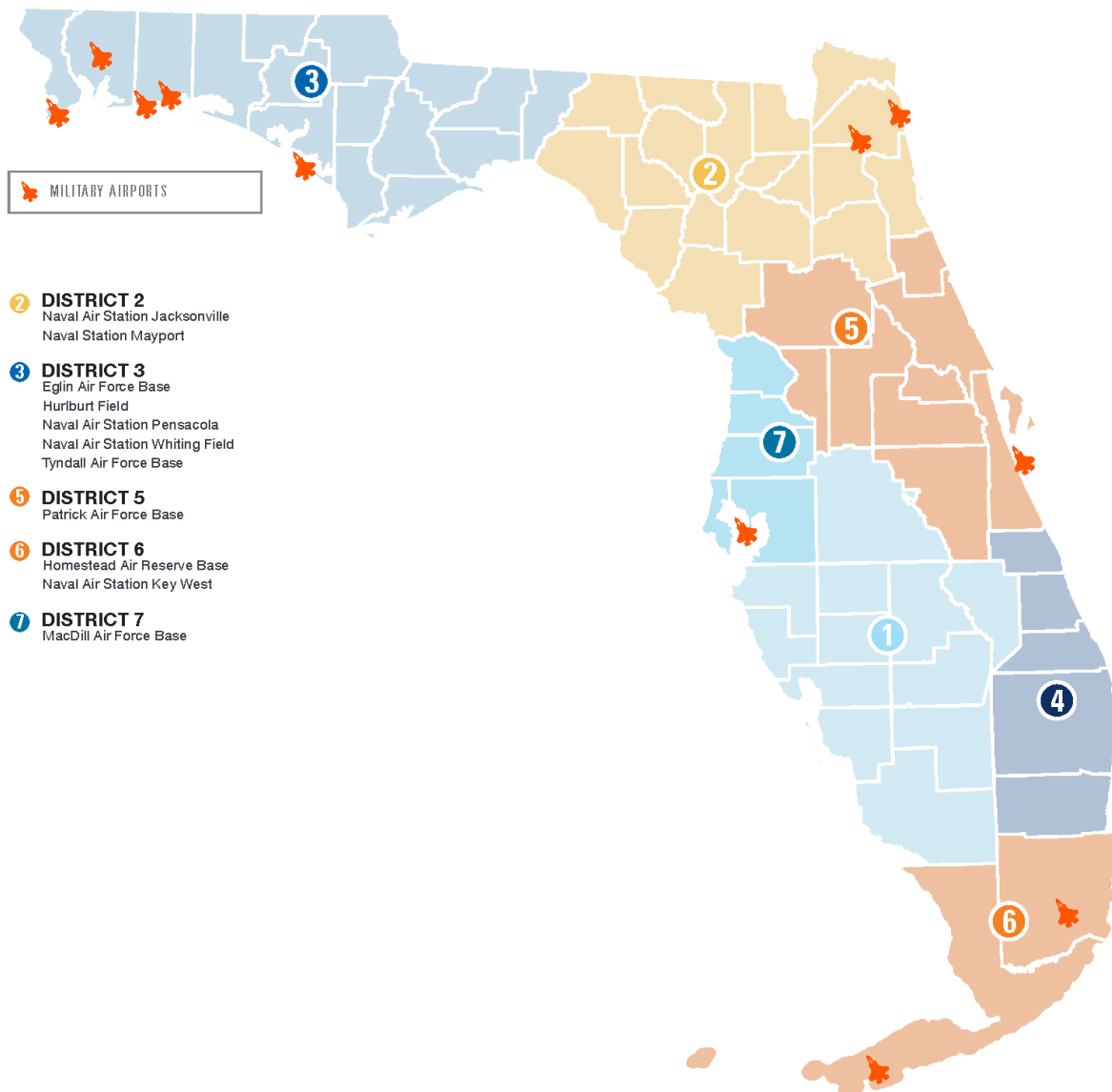
Sources: Okaloosa Economic Development Council; Eglin AFB 96 FSS/FSMM; Eglin AFB Public Affairs Office; Hurlburt Field Fact Sheet; Public Affairs Office; Hurlburt Field EIS; Homestead ARB Public Affairs Office; MacDill AFB Office of Public Affairs; MacDill AFB Economic Impact Analysis; Patrick AFB Economic Impact Analysis; Patrick AFB EIS; Tyndall AFB Economic Impact Analysis; Tyndall AFB EIS; NAS Whiting Field Office of Public Affairs, University of West Florida, Haas Center; Navy Region Southeast EIS, Fiscal Year 2016; NAS Jacksonville Office of Public Affairs; Navy Region Southeast EIS, Fiscal Year 2016; NS Mayport Office of Public Affairs, University of West Florida, Haas Center; NAS Key West Office of Public Affairs, University of West Florida, Haas Center; NAS Pensacola Office of Public Affairs.

The data collected for the 2014 Study included the total employment, payroll, and expenditures for each base during Fiscal Year (FY) 2013. The current employment, payroll, and expenditure data was collected from the Department of Defense (DOD) economic impact publications, the Base Closure and Realignment Commission (BRAC), and other state and local economic impact sources that were developed between 2014 and 2016. Individual data sources are provided for each installation. The collective data was compared to find any general trends to summarize the economic benefits of Florida's military aviation installations to the local and state economy.

It should be noted that these are not the only military installations in Florida that serve aviation. Many others, such as the U.S. Coast Guard at St. Pete-Clearwater International Airport (PIE), employ hundreds of people that have a significant impact on the state's economy. These installations were not included in this analysis because they will be accounted for as part of a comprehensive survey process that will be completed as part of Phase II of the Statewide EIS.



Figure D-1. Map of Military Aviation in the State of Florida



Source: 2019 FDOT EIS; Kimley-Horn. 2018.

Eglin AFB

Eglin AFB is in Okaloosa County and occupies over 455,000 acres over north Florida and the Gulf of Mexico. Established in 1935 as a gunnery base, the primary purpose of the base now is the development, acquisition, testing, deployment, and sustainment of all air-delivered non-nuclear weapons. The squadron in charge of this mission is the 96th Air Base Wing. Other squadrons utilizing the base are 33rd Fighter Wing, 58th Fighter Squadron, 53rd Wing, 49th Test and Evaluation Squadron, and 7th Special Forces Group. These squadrons operate on two runways, 01/19 at 10,012 feet in length and 12/30 at 12,005 feet in length.

Approximately two-thirds of all jobs at the base are attributed to aviation. The data collected from the 2014 EIS are provided in Table D-2.

Table D-2. 2014 Eglin Air Force Base Direct Aviation Impact

Aviation Personnel		Aviation Spending	
Type	Total Employment (no.)	Type	Total Spending (\$)
Military	5,415	Payroll	\$662,197,000
Civilian	4,441	Expenditures	\$568,197,000
Contractor	2,948	Total	\$1,230,568,000
Direct Employment	12,804		

Source: Okaloosa Economic Development Council, Eglin AFB 96 FSS/FSMM. 2014.

As shown in Table D-2, almost 13,000 jobs at Eglin AFB were related to aviation during 2014. In 2013 over \$662 million was paid out to personnel in the form of payroll, and another \$568 million was spent in the local economy in the form of expenditures. More recent data of personnel employed and spending by the base for FY 2016 can be seen in Table D-3.

Table D-3. 2016 Eglin Air Force Base Direct Aviation Impact

Aviation Personnel			Aviation Spending		
Type	Total Employment (no.)	Percent Change from 2014	Type	Total Spending (\$)	Percent Change from 2014
Military	7,169	32.4%	Payroll	\$1,205,986,738	82.1%
Civilian	3,971	(10.6%)	Expenditures	\$526,714,117	(7.3%)
Contractor	2,595	(8.9%)	Total	\$1,732,700,855	40.8%
Direct Employment	13,735	8.1%			

Source: Eglin Air Force Base Public Affairs Office. 2016.

Analysis of the data shows that Eglin AFB increased the total working personnel and spending by the base from 2014 to FY 2016. The military personnel directly employed by the base grew to by 32.4 percent to more than 7,000, while civilian and contract employment dropped by 10.6 and 8.9 percent respectively. The total personnel employed by Eglin AFB grew 8.1 percent. Payroll increased by 82.1 percent to more than \$1.2 billion in FY 2016. Conversely, expenditures by the base fell by 7.3 percent to about \$530 million. The total spending for the base in FY 2016 increase by 40.8 percent from 2014 to about \$1.7 billion.

Hurlburt Field

Hurlburt Field is in Okaloosa County and is a 6,700-acre subsection of Eglin AFB. The base was an auxiliary field for Eglin AFB until 1955 when the base was administratively separated. The airfield is home to four unique Air Force squadrons; Air Force Special Operations Command (AFSOC), 1st Special Operations Wing (1 SOW), United States Air Force Special Operations School (USAFSOS), and the Air Combat Command's (ACC) 505th Command and Control Wing. The airfield operates on one runway, 18/36 at 9,600-feet, and one helipad. All jobs shown in the following tables for Hurlburt Field are attributed to aviation. The data collected from the 2014 Economic Impact Study can be seen in Table D-4.

Table D-4. 2014 Hurlburt Field Direct Aviation Impact

Aviation Personnel		Aviation Spending	
Type		Total Employment (no.)	
Military	8,543	Payroll	\$937,000,000
Civilian	1,968	Expenditures	\$147,898,000
Contractor	1,529	Total	\$1,084,898,000
Direct Employment	12,040		

Source: Hurlburt Field Fact Sheet, Public Affairs Office. 2014.

The total number of personnel employed at Hurlburt field combines to over 12,000 during 2014. The payroll and expenditures for 2013 totaled slightly less than \$1.1 billion. More recent data for FY 2016 is presented in Table D-5, showing the percent changes from the 2014 study data to the current data in each section.

Table D-5. 2016 Hurlburt Field Direct Aviation Impact

Aviation Personnel			Aviation Spending		
Type	Total Employment (no.)	Percent Change from 2014	Type	Total Spending (\$)	Percent Change from 2014
Military	10,195	19.3%	Payroll	\$932,800,000	(0.5%)
Civilian	2,028	3.1%	Expenditures	\$122,700,000	(17.0%)
Contractor	2,292	49.9%	Total	\$1,055,500,000	(2.7%)
Direct Employment	14,515	20.6%			

Source: Hurlburt Field Economic Impact Statement. 2016.

Further review of the data shows that the base's military personnel and contractors saw a sharp rise in employment numbers between 2014 to FY 2016, increasing by approximately 20 and 50 percent, respectively. The civilian employment grew at a relatively moderate rate of 3.1 percent, giving Hurlburt Field a 20.6 percent growth in personnel over the last two years. The spending by the base on payroll and expenditures fell slightly between the studies. Payroll fell by 0.5 percent, to \$932.8 billion from \$937 billion. Expenditures at Hurlburt Field during FY 2016 fell by a considerable amount, totaling \$25.2 million, a 17 percent decline. The total budget for Hurlburt Field decreased by 2.71 percent from 2014 to FY 2016 to \$1.06 billion.

Homestead Air Reserve Base

Homestead ARB is in Miami-Dade County, and is the largest military airfield in southern Florida, covering 2,940 acres. Originally opened in 1942, Homestead ARB has intermittently been closed over the years; once in 1945 and again in 1992 after being destroyed by hurricanes. The base was first rebuilt in 1955 and again after hurricane Andrew in 1992. Homestead ARB has served as a permanent military installation since the Cuban Missile Crisis in 1962 and is currently home to the 482nd Fighter Wing. The airfield operates with one runway, 05/23 at 11,200 feet in length. All jobs in the following tables are attributed to aviation. The data collected from the 2014 EIS can be seen in Table D-6.

Table D-6. 2014 Homestead Air Reserve Base Economic Impact

Aviation Personnel		Aviation Spending	
Type		Total Employment (no.)	
Military	2,444	Payroll	\$102,469,000
Civilian	692	Expenditures	\$147,805,000
Contractor	107	Total	\$250,274,000
Direct Employment	3,243		

Source: Homestead ARB Public Affairs Office. 2014.

As shown, Homestead ARB employed 3,243 personnel for its operations, paying over \$100 million in payroll and almost \$150,000 in expenditures in 2014. More recent data is provided for FY 2014 from the base and is presented in Table D-7.

Table D-7. FY 2014 Homestead Air Reserve Base Economic Impact

Aviation Personnel			Aviation Spending		
Type	Total Employment (no.)	Percent Change from 2014	Type	Total Spending (\$)	Percent Change from 2014
Military	3,100	26.8%	Payroll	\$91,000,000	(11.2%)
Civilian	560	(19.1%)	Expenditures	\$179,210,000	21.3%
Contractor	0	N/A	Total	\$270,210,000	8.0%
Direct Employment	3,660	12.9%			

Source: Homestead ARB Public Affairs Office. 2014.

Homestead ARB contributed more than \$179 million to the local economy in the form of expenditures in FY 2014, approximately 16.5 percent more than the previous fiscal year. For FY 2014, the payroll at Homestead ARB was more than \$91 million, a decrease of 11.2 percent. The spending on the base increased from FY 2013 to FY 2014 by eight percent to a total \$270 million. The personnel working at the base include 1,400 full-time employees and military members, in addition to 1,700 Air Force reservists who drill at the base monthly. An additional 560 contractors are assigned to the base, as of 2015, and work with various tenants including U.S. Special Operations Command South, U.S. Coast Guard Maritime Safety and Security Team, Florida Air National Guard, and U.S. Customs and Border Protection.

MacDill Air Force Base

MacDill AFB is located on the tip of the Interbay Peninsula in Tampa and occupies 5,900 acres. The base was established in 1898 during the Spanish-American War, then transitioned to a flight training airfield during World War II. Shifting between B-17 and B-29 training until 1953, MacDill AFB is now the training field for newer tanker and bomber aircraft. In 1960, the base was considered for closure, but the Cuban Missile Crises demonstrated the value of the bases location. MacDill AFB is operated by the 6th Air Mobility Wing and hosts the 927th Air Refueling Wing who operate on the base's one runway, 05/23 at 8,000 feet in length. Approximately one-quarter of all jobs at MacDill AFB are attributed to aviation. The data collected from the 2014 EIS reflects this estimate and can be seen in Table D-8.

Table D-8. 2013 MacDill Air Force Base Economic Impact

Aviation Personnel		Aviation Spending	
Type		Total Employment (no.)	
Military	2,961	Payroll	\$183,065,000
Civilian	454	Expenditures	\$270,619,000
Contractor	450	Total	\$453,684,000
Direct Employment	3,865		

Source: MacDill AFB Office of Public Affairs; MacDill AFB Economic Impact Analysis. 2014.

For 2013, MacDill AFB employed a combined 3,865 aviation-related personnel. The total payroll for those jobs amounted to more than \$180 million, with expenditures exceeding \$270 million. The changes in personnel and spending between 2013 and FY 2014 can be seen in Table D-9.

Table D-9. FY 2014 MacDill Air Force Base Economic Impact

Aviation Personnel			Aviation Spending		
Type	Total Employment (no.)	Percent Change from 2014	Type	Total Spending (\$)	Percent Change from 2014
Military	3,777	26.8%	Payroll	\$267,644,089	46.2%
Civilian	915	101.5%	Expenditures	\$729,589,553	(32.6%)
Contractor	21	(95.3%)	Total	\$997,233,643	119.8%
Direct Employment	4,713	21.9%			

Source: MacDill AFB Office of Public Affairs; MacDill AFB Economic Impact Statement. 2014.

During FY 2014, MacDill AFB increased the military and civilian personnel by 26.8 and 101.5 percent, respectively, while the number of contractors working on the base decreased by more than 95 percent. The spending over the course of a year resulted in a substantial increase in the payroll of the personnel, increasing by 46.2 percent to over \$267 million. Conversely, the expenditures at the base for aviation decreased 32.6 percent from 2013 to FY 2014, a reduction of approximately \$88 million. These changes in spending cumulate to a total reduction of 0.8 percent, a total \$3.7 million.

Patrick Air Force Base

Patrick AFB is in Brevard County on the east coast of Florida, approximately 15 miles south of Cape Canaveral, and occupies approximately 2,300 acres of land. The base is home to the 45th Space Wing (SW). The mission of the 45th SW is to ensure access to space and support global operations. The 45th SW commands both Patrick AFB and Cape Canaveral Air Force Station. The base operates from two runways, 02/20 at 9,023 feet in length and 11/29 at 4,000 feet in length.

All personnel based and working at Patrick AFB are attributed to aviation. The data collected from the 2014 EIS are shown in Table D-10.

Table D-10. 2014 Patrick Air Force Base Economic Impact

Aviation Personnel		Aviation Spending	
Type		Total Employment (no.)	
Military	3,921	Payroll	\$365,407,000
Civilian	2,610	Expenditures	\$604,721,000
Contractor	3,483	Total	\$970,128,000
Direct Employment	10,014		

Source: Patrick AFB Economic Impact Analysis. 2014.

Patrick AFB provided over 10,000 jobs in FY 2013 and spending more than \$365 million on payroll for said personnel. An additional \$607 million in expenditures was spent by the base, continuing their impact on the local economy. Data from FY 2016 are shown in Table D-11.

Table D-11. FY 2016 Patrick Air Force Base Economic Impact

Aviation Personnel			Aviation Spending		
Type	Total Employment (no.)	Percent Change from 2014	Type	Total Spending (\$)	Percent Change from 2014
Military	3,951	0.8%	Payroll	\$371,635,861	(0.5%)
Civilian	2,614	0.2%	Expenditures	\$461,122,865	(23.8%)
Contractor	2,777	(20.3%)	Total	\$832,758,726	(14.2%)
Direct Employment	9,342	(6.7%)			

Source: Patrick AFB Economic Impact Statement. 2016.

Through FY 2016, Patrick AFB saw an overall decrease in personnel and spending from the last EIS in 2014. The military personnel and civilian workers increased by 30 and four people, respectively. The contractor work for the base has subsided noticeably, falling by over 20 percent over the three years. The cumulative change to the base workforce was a 6.7 percent reduction. The spending on the base was also reduced. Payroll fell by 0.5 percent, to just under \$372 million annually and expenditures fell considerably more to just over \$461 million annually, a decrease of 23.8 percent. The total spending by the base was reduced by 14.2 percent from 2014 to FY 2016, a total of \$140 million.



Tyndall Air Force Base

Tyndall AFB is in Bay County, 12 miles east of Panama City, and occupies approximately 9,280 acres. The base was established in 1940 as a gunnery range, then converted to an AFB in 1947. The base is currently the headquarters for the 325th Fighter Wing, in addition to eight other tenants. These operators use the airfield's two runways, 13L/31R at 9,075 feet in length and 13R/31L at 10,004 feet in length. All jobs and spending at the airfield are attributed to aviation and are shown in Table D-12.

Table D-12. 2014 Tyndall AFB Economic Impact

Aviation Personnel Type		Aviation Spending Total Employment (no.)	
Military	3,395	Payroll	\$299,469,000
Civilian	1,504	Expenditures	\$259,032,000
Contractor	161	Total	\$558,501,000
Direct Employment	5,060		

Source: Tyndall AFB Economic Impact Analysis. 2014.

Tyndall AFB had slightly more than 5,000 personnel in FY 2013 and spent just under \$300 million in payroll. Additional expenditures total slightly less than \$260 million. The changes to the base during the following FY, in addition to the percent changes from the 2014 study data to the current data for each section, are shown in Table D-13.

Table D-13. FY 2014 Tyndall AFB Economic Impact

Aviation Personnel Type			Aviation Spending Type		
Total Employment (no.)	Percent Change from 2014		Total Spending (\$)	Percent Change from 2014	
Military	4,250	25.2%	Payroll	\$363,250,663	21.3%
Civilian	1,722	14.2%	Expenditures	\$162,432,765	(37.3%)
Contractor	444	175.8%	Total	\$525,683,428	(5.9%)
Direct Employment	6,416	26.8%			

Source: Tyndall AFB Economic Impact Statement. 2014.

Tyndall AFB saw considerable growth during FY 2014, as military, civilian, and contractor personnel grew by 25.2, 14.5, and 175.8 percent, respectively. The total growth for the base was 26.8 percent, increasing the total workforce to just over 6,400. Due to the considerable increase in the personnel on the base the payroll increased by over 20 percent, to more than \$363 million. However, expenditures fell during FY 2014 by 37.3 percent to under \$163 million. Annual spending by Tyndall AFB fell by 14.2 percent between FY 2013 and FY 2014, a total of \$32 million.

Naval Air Station Whiting Field

NAS Whiting Field is in the City of Milton in Santa Rosa County and occupies over 3,800 acres. NAS Whiting Field is one of two primary training facilities for U.S. Navy pilots. NAS Whiting Field has two different

airfields on the base: North Whiting Field is used primarily for flight training and South Whiting Field is used primarily for advanced helicopter training. Due to the nature of the operations at NAS Whiting Field, it experiences over 1.5 million operations a year. North Whiting Field has two runways; 05/23 at 6,002 feet in length and 14/32 at 6,002 feet in length. South Whiting Field operates on two runways; 05/32 at 5,997 feet in length and 14/32 at 6,001 feet in length. All jobs and spending on the base are attributed to aviation. The data collected from the 2014 EIS can be seen in Table D-14.

Table D-14. 2014 NAS Whiting Field Economic Impact

Aviation Personnel		Aviation Spending	
Type		Total Employment (no.)	
Military	1,955	Payroll	\$128,473,000
Civilian	466	Expenditures	\$139,298,000
Contractor	718	Total	\$267,771,000
Direct Employment	3,139		

Source: NAS Whiting Field Office of Public Affairs, University of West Florida, Haas Center. 2014.

NAS Whiting Field had more than 3,000 personnel working on base during 2014. The payroll for those 3,000 personnel totaled over \$128 million, with expenditures by the base exceeding \$139 million. The changes to the base in spending and personnel from 2014 to FY 2016 are shown in Table D-15.

Table D-15. FY 2016 NAS Whiting Field Economic Impact

Aviation Personnel			Aviation Spending		
Type	Total Employment (no.)	Percent Change from 2014	Type	Total Spending (\$)	Percent Change from 2014
Military	1,853	(5.2%)	Payroll	\$195,876,000	52.5%
Civilian	469	0.6%	Expenditures	\$44,831,000	(67.8%)
Contractor	747	4.0%	Total	\$240,707,000	(10.1%)
Direct Employment	3,069	(2.2%)			

Source: Navy Region Southeast Economic Impact Study. 2016.

Military personnel working on the base fell by 5.2 percent between 2014 and FY 2016, while civilian and contractor employment grew by 0.6 percent and 4.0 percent, respectively. This resulted in a cumulative reduction in personnel on the base by 2.2 percent. Payroll for the base increased by 52.5 percent to less than \$200 million annually, while expenditures fell by 67.8 percent to less than \$45 million annually. In total spending by NAS Whiting Field fell by \$27 million between 2014 and FY 2016 to \$240 million annually, a decrease of 10 percent.

Naval Air Station Jacksonville

NAS Jacksonville is in Duval County approximately eight miles south of Jacksonville and occupies slightly less than 25,000 acres. The base was opened initially in 1917 and changed hands between the Navy and National Guard before being officially commissioned in 1940 as NAS Jacksonville. The base is currently host to Patrol Squadrons (VP), Helicopter Maritime Strike Squadrons (HSM), Fleet Logistic Support Wings



(Navy Reserve), and Maritime Support Wings (VR), among many other operational squadrons. NAS Jacksonville operations utilize two runways, 10/28 at 8,000 feet in length and 14/32 at 5,980 feet in length. Jobs and spending on the base related to aviation for 2014 are shown in Table D-16.

Table D-16. 2014 NAS Jacksonville Economic Impact

Aviation Personnel		Aviation Spending	
Type		Total Employment (no.)	
Military	7,297	Payroll	\$896,000,000
Civilian	5,083	Expenditures	\$700,000,000
Contractor	862	Total	\$1,596,000,000
Direct Employment	13,242		

Source: NAS Jacksonville Office of Public Affairs. 2014.

Of the more than 20,000 jobs created locally due to the base, over half (13,242) have jobs related to aviation. These jobs carry an annual payroll of almost \$900 million with an additional \$700 million going into the local economy in the form of expenditures. The changes in personnel and spending between 2014 and FY 2016 can be seen in Table D-17.

Table D-17. FY 2016 NAS Jacksonville Economic Impact

Aviation Personnel			Aviation Spending		
Type	Total Employment (no.)	Percent Change from 2014	Type	Total Spending (\$)	Percent Change from 2014
Military	9,302	27.5%	Payroll	\$1,125,934,000	25.7%
Civilian	7,454	46.6%	Expenditures	\$321,985,000	(54.0%)
Contractor	713	(17.3%)	Total	\$1,447,919,000	(9.3%)
Direct Employment	17,469	31.9%			

Source: Navy Region Southeast Economic Impact Study. 2016.

Between 2014 and FY 2016, NAS Jacksonville increased the military personnel by 27.5 percent and the number of civilian employees increased by 46.6 percent. Conversely, contractor workers on the base decreased by 17.3 percent. In total, base workforce rose by just under 32 percent. The spending between 2014 and FY 2016 resulted in an increase in the payroll of the personnel, increasing by over 25 percent to over \$1.1 billion, while expenditures fell by 54 percent to \$322 million.

Naval Station Mayport

NS Mayport is in Duval County 15 miles northeast of Jacksonville and occupies 3,230 acres. Opened in 1942, the base currently hosts the third-largest naval fleet in the United States. The base is home to 83 tenant commands on-site, including the Helicopter Maritime Strike Wing and U.S. Atlantic Fleet. NS Mayport aviation operations utilize the single runway 05/23 at 8,001 feet in length. Approximately one-third of the personnel and spending on the base are related to aviation. The data from the 2014 military aviation EIS are shown in Table D-18.



Table D-18. 2014 NS Mayport Economic Impact

Aviation Personnel Type		Aviation Spending Total Employment (no.)	
Military	2,000	Payroll	\$87,287,000
Civilian	150	Expenditures	\$95,410,000
Contractor	0	Total	\$182,697,000
Direct Employment	2,150		

Source: NS Mayport Office of Public Affairs, University of West Florida, Haas Center. 2014.

NS Mayport had 2,150 personnel on-base contributing to aviation. Those personnel accumulated over \$87 million in payroll during 2014. An additional \$95.4 million in expenditures were spent in the local economy. The changes to the base in spending and personnel from 2014 to FY 2016 are shown in Table D-19.

Table D-19. FY 2016 NAS Mayport Economic Impact

Aviation Personnel			Aviation Spending		
Type	Total Employment (no.)	Percent Change from 2014	Type	Total Spending (\$)	Percent Change from 2014
Military	7,713	285.7%	Payroll	\$645,918,000	640.0%
Civilian	1,679	1,019.3%	Expenditures	\$324,099,000	239.7%
Contractor	1,123	N/A	Total	\$970,017,000	430.9%
Direct Employment	10,515	388.8%			

Source: Navy Region Southeast Economic Impact Study, Fiscal Year 2016

As identified in Table D-19, there have been substantial increases in all categories for NS Mayport. One of the reasons for this growth could be that NS Mayport is primarily a naval seaport. Between 2014 and FY 2016, NS Mayport increased the military and civilian personnel by over 285 percent and 1,000 percent, respectively. NS Mayport did not have any contract workers during the previous EIS for 2014 but reported 1,123 workers for FY 2016. The base workforce increased by 388.8 percent in total. The spending between 2014 and FY 2016 resulted in a substantial increase in the payroll of the personnel, increasing by 640 percent to approximately \$646 million.

Naval Air Station Key West

NAS Key West is located on Boca Chica Key, near Key West, and occupies over 5,600 acres. NAS Key West's national security mission supports operational and readiness requirements for the DOD, Department of Homeland Security, Air National Guard and Army National Guard units, allied military forces, and other federal agencies. NAS Key West operates on three runways; 03/21 at 7,002 feet in length, 07/25 at 10,001 feet in length, and 13/31 at 7,001 feet in length. All personnel and spending on the base are attributed to aviation. The data from the 2014 military aviation EIS are shown in Table D-20.



Table D-20. 2014 NAS Key West Economic Impact

Aviation Personnel		Aviation Spending	
Type		Total Employment (no.)	
Military	1,404	Payroll	\$159,200,000
Civilian	935	Expenditures	\$69,800,000
Contractor	327	Total	\$229,000,000
Direct Employment	2,666		

Source: NAS Key West Office of Public Affairs, University of West Florida, Haas Center. 2014.

There were 2,666 personnel working on the base in 2014. Those jobs resulted in almost \$160 million in payroll, and another \$670 million was spent on expenditures. The changes to the personnel and the base from 2014 to FY 2016 are shown in Table D-21.

Table D-21. FY 2016 NAS Key West Economic Impact

Aviation Personnel			Aviation Spending		
Type	Total Employment (no.)	Percent Change from 2014	Type	Total Spending (\$)	Percent Change from 2014
Military	1,431	1.9%	Payroll	\$175,670,000	10.3%
Civilian	1,071	14.5%	Expenditures	125,892,000	80.4%
Contractor	3	(99.1%)	Total	\$301,562,000	31.7%
Direct Employment	2,505	(6.0%)			

Source: Navy Region Southeast Economic Impact Study. 2016.

Between 2014 and FY 2016, NAS Key West saw moderate increases in both military and civilian personnel, recording increases of 1.9 percent and 14.5 percent, respectively. NAS Key West also reported a close to 100 percent decrease in contractor employees (327 to 3). The base workforce decreased by 6.0 percent in total. The spending between 2014 and FY 2016 resulted in an increase in payroll, increasing by 10.3 percent to over \$175 million.

Naval Air Station Pensacola

NAS Pensacola in Escambia County occupies over 5,000 acres. The base was built in 1913 and is known as “The Cradle of Naval Aviation.” NAS Pensacola hosts the U.S. Navy Flight Demonstration Squadron (Blue Angels), the Naval Aviation Schools Command, the Naval Air and Operational Medical Institute (NAOMI), and hosts Marine and Air Force pilot training units. The base operates on three runways; 10/19 at 7,137 feet, 07L/25R at 8,002 feet, and 07R/25L at 8,001 feet. Approximately 85 percent of all personnel and spending on the base are attributed to aviation. The data from the 2014 military aviation EIS are shown in Table D-22.



Table D-22. 2014 NAS Pensacola Economic Impact

Aviation Personnel		Aviation Spending	
Type		Total Employment (no.)	
Military	12,027	Payroll	\$696,509,000
Civilian	1,683	Expenditures	\$624,955,000
Contractor	373	Total	\$1,321,464,000
Direct Employment	14,083		

Source: NAS Pensacola Office of Public Affairs. 2014.

NAS Pensacola had over 14,000 personnel working in aviation-related jobs in 2014 and spent almost \$700 million on payroll, with another \$625 million expenditures. The changes to the base in spending and personnel from 2014 to FY 2016 are shown in Table D-23.

Table D-23. FY 2016 NAS Pensacola Economic Impact

Aviation Personnel			Aviation Spending		
Type	Total Employment (no.)	Percent Change from 2014	Type	Total Spending (\$)	Percent Change from 2014
Military	16,839	40.0%	Payroll	\$1,068,480,000	53.4%
Civilian	5,213	209.7%	Expenditures	\$168,259,000	(73.1%)
Contractor	181	(51.5%)	Total	\$1,236,739,000	(6.4%)
Direct Employment	22,233	57.9%			

Source: Navy Region Southeast Economic Study Impact. 2016.

Between 2014 and FY 2016, NAS Pensacola saw substantial increases in both military and civilian personnel, recording increases of 40 and 209 percent, respectively. NAS Pensacola also reported an over-50 percent decrease in contractor employees. The base workforce increased by approximately 58 percent in total. The spending between 2014 and FY 2016 resulted in a 53 percent increase in payroll to over \$1 billion.

Summary

Military aviation in Florida is a major contributor to the state and local economies, employing over 82,000 workers and spending more than \$2.9 billion during 2014. In 2016, military aviation employed 108,172 workers and spending was more than \$9.8 billion in capital investments (presented in 2017 dollars). These data show a general upward trend in employment and spending since 2014.

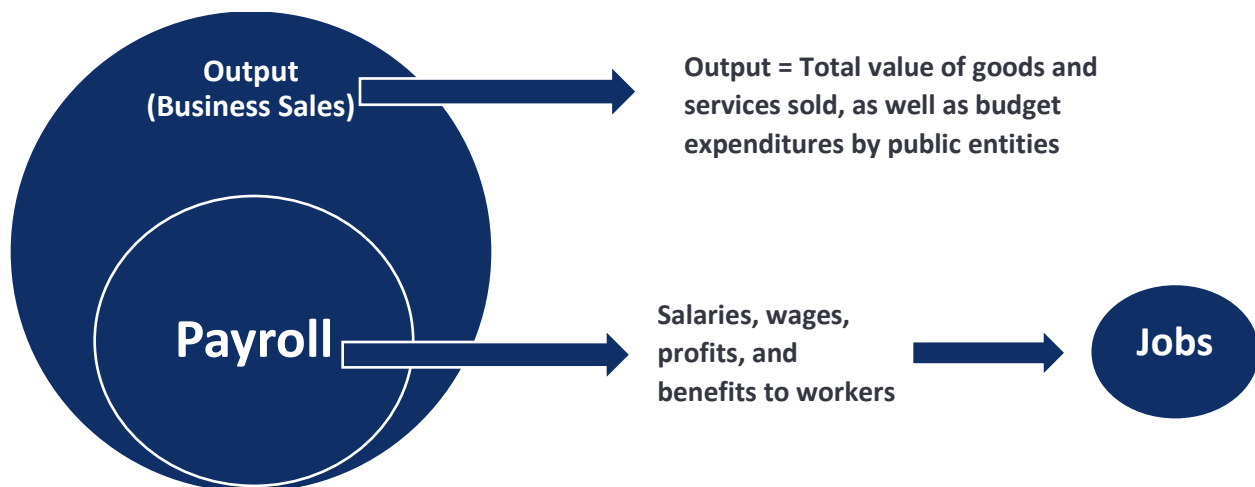
E. 2019 Statewide Aviation EIS Methodology

Introduction

Airport jobs and commerce on the airport premises create strong economic stimuli for the Florida economy. To describe and measure the contribute of Florida's airports to the state economy and sub-regions within Florida, the 2019 Statewide Aviation EIS (the Study) utilized a variety of primary and secondary data sources and economic modeling techniques.

The core components of the economic analysis are illustrated in Figure E-1. Economic impacts are driven by output, and a portion of output are used to pay workers. As shown in the overlapping circles, payroll is a component of business revenues and the two values cannot be added together. The relationships of these impacts are discussed in more detail in the Economic Measures section below.

Figure E-1. Major Components of Economic Contribution Analysis



Major Data Sources

The discussion of total impacts is based on the following analyses conducted as part of this Study:

- **Airport Manager Survey:** This survey provided the number of airport employees, payroll, capital expenditures, information on operations and aviation activity, as well as qualitative data about the airport.
- **Airport Tenant Survey:** These surveys provided profiles of on-airport jobs by establishment and type of business activity. These data included construction expenditures; concession sales; tenant staffing and payroll; and federal agency activities such as the Federal Aviation Administration (FAA), Transportation Security Administration (TSA), and others. These surveys were supplemented by interviews and establishment-level databases to fill in gaps, as necessary.
- **Commercial Service Passenger Survey:** The survey profiled trip purposes, place of origin (i.e., international or domestic), and the amount of money per Florida Department of Transportation (FDOT) District spent by out-of-state visitors using the airport. This survey had a confidence interval of 0.95 and a margin of error of 0.05. This indicated that a visitor spent plus or minus 5 percent of the

findings reported in this Study in 95 percent of cases. The Study methodology combined commercial airport surveys within FDOT Districts assuming that spending of out-of-state visitors to the same general area was equivalent.

- **GA Pilot/Passenger Survey:** The survey profiles trip purposes, place of origin, and the amount of money per FDOT District spent by out-of-state visitors using the airport. The Study methodology combined GA visitor spending surveys conducted at airports nationally with GA surveys completed at Florida airports assuming that GA surveys completed at similar airports/locales could augment and provide more depth to the surveys received from Florida airports.
- **2017 Origin and Destination (O&D) Resident/Visitor Report from Airline Data, Inc.:** This report segments enplanements by out-of-state visitors, residents, and connecting passengers to provide accurate annual out-of-state visitor counts for each of Florida's commercial service airports.
- **GA Visitor Surveys from Peer EISs:** Given a low response rate to the GA visitor survey, similar surveys recently conducted in other states and regions were combined with the Florida results to provide a more robust data set. This hybrid approach resulted in a fully representative profile of GA visitor spending activities that could be applied to each classification of Florida's GA airports.
- **Businesses that Rely on Florida Airports / Businesses that Own/Lease Aircraft Surveys:** Surveys were conducted of businesses that depend on airports for cargo and/or business travel. To be conservative in the approach, airport managers were asked to identify businesses that rely on the airport to identify survey recipients. These businesses consisted of companies that base aircraft at a Florida airport and frequent users of commercial passenger or air cargo services. Alternative approaches could have included a general statewide general business survey (which often return a poor response rate) or database mining to create a larger finding. These approaches were considered, but ultimately rejected.
- **IMPLAN Economic Model System.** Econometric models for Florida are based on the IMPLAN Economic Model System. IMPLAN was used to estimate wages and sales for private companies and budget expenditures for public entities for airport tenants that only provided employment totals. IMPLAN was also used to determine employment and payroll values based on visitor spending. Payroll and sales and/or expenditures per worker were derived primarily from county-specific U.S. Department of Commerce and Department of Labor data sets. IMPLAN was also used to derive multiplier effects, including business orders to suppliers generated by on-airport businesses, non-aviation tenants, off-airport businesses serving airport out-of-state visitors and airport-reliant businesses, construction activity, and output generated by the spending of the workers' income on consumer purchases. The analysis of retail impacts was adjusted to account for retail markup margins. Retail portions of multiplier effects also incorporate these margins.

Economic Measures

Economic impacts in this Study include direct impacts and multiplier effects as discussed in the section below.

Direct Impacts

Direct impacts stem from activity that is directly related to the provision of aviation services, visitor spending, or the activities of aviation-reliant businesses. For example, the direct impacts of on-airport

tenants include the number of persons employed on the airport, wages and benefits paid to those workers, and output. Similarly, the direct impacts of out-of-state air visitors include money spent on services and goods, as well as the jobs and payroll supported by those expenditures. While most of the direct impacts measured in this Study occur on-airport, some – such as visitor spending and the benefits produced by aviation-dependent businesses – occurred off-airport.

Multiplier Effects

Supplier purchases and employee spending, respectively referred to as “indirect effects” and “induced effects” in jargon, compose the two streams that constitute “multiplier effects.” Economic impacts from supplier purchases are generated when directly affected businesses use a portion of their direct business revenues to purchase goods and services from other Florida businesses.²⁴ Economic impacts from employee spending occur when workers who earn income from direct and supplier sales spend their wages in Florida to purchase household goods and services such as groceries, rent, and entertainment.

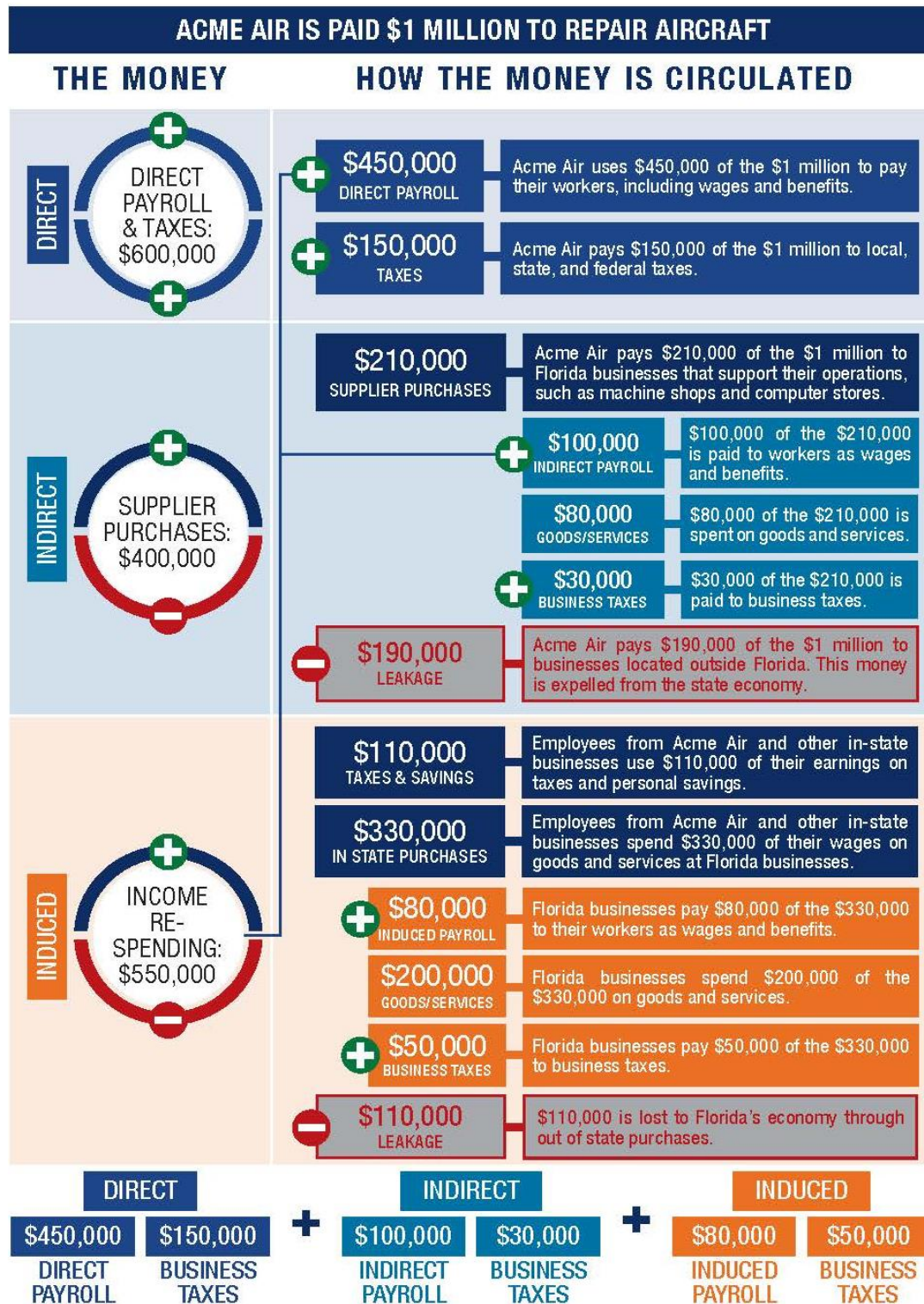
For example, an airport restaurant may buy supplies from a regional produce vendor. This purchase represents income (i.e., new output) to the produce supplier. The produce supplier then uses a portion of that income to pay its workers and buy additional goods and services from other businesses in the region. In addition, workers in the airport restaurant spend their wages on items such as housing, retail purchases, and services. In turn, those expenditures support jobs in those industries, whose workers then spend their salaries in Florida. These successive rounds of spending and job creation represent indirect impacts (business-to-business from supplier purchases) and induced impacts (worker-to-worker from the re-spending of wages). This Study specifically measured the supplier purchases and employee spending that occur in each FDOT District, the rest of Florida, and throughout Florida (the sum of impacts in FDOT Districts and the rest of Florida).

Figure E-2 illustrates how direct output (in this example, \$1 million paid to an FBO to repair an aircraft) leads to supplier purchases and income re-spending by workers. Every step leads to the generation of jobs and payroll in Florida. In some cases, goods and services are purchased from out-of-state vendors by businesses and workers. These dollars leak out of Florida and are lost to the state. However, more sales are made for as long as dollars keep circulating in Florida, which support additional jobs and payroll for Floridians.

24 Directly affected businesses are those directly related to aviation such as a business on airport property or a business in the hospitality industry serving out-of-state visitors.



Figure E-2. Circulation of Dollars in Regional and State Economies



Source: Kimley-Horn. 2018.



Use of IMPLAN for Direct Impacts

The IMPLAN model provides industry details for 536 sectors that correspond to two- to five-digit groups in the North American Industry Classification System (NAICS). The primary economic data used from IMPLAN includes ratios and multipliers.

The ratios reflect productivity (i.e., the ratio of jobs to business revenue) and income level (i.e., jobs to payroll) measures associated with each category of economic contribution (including tenants, out-of-state visitors spending, and freight shippers). These ratios are used to impute missing metrics based on available impact metrics (e.g. jobs, sales, and income), as shown in Table E-1. For example, in cases where payroll was not directly provided by tenants, it was calculated based on average (mean) wages per worker by economic sector as reported by IMPLAN.

Table E-1. How IMPLAN Data is Used to Address Direct Impact Gaps

Data Availability	Jobs	Payroll	Business Revenue
Option 1	X	O	O
Option 2	X	X	O
Option 3	O	O	X
Option 4	X	X	X

KEY:

X = Data directly available

O = Data imputed based on the Florida Regional Economy as derived from IMPLAN

Source: EDR Group. 2019.



Geographical Approach

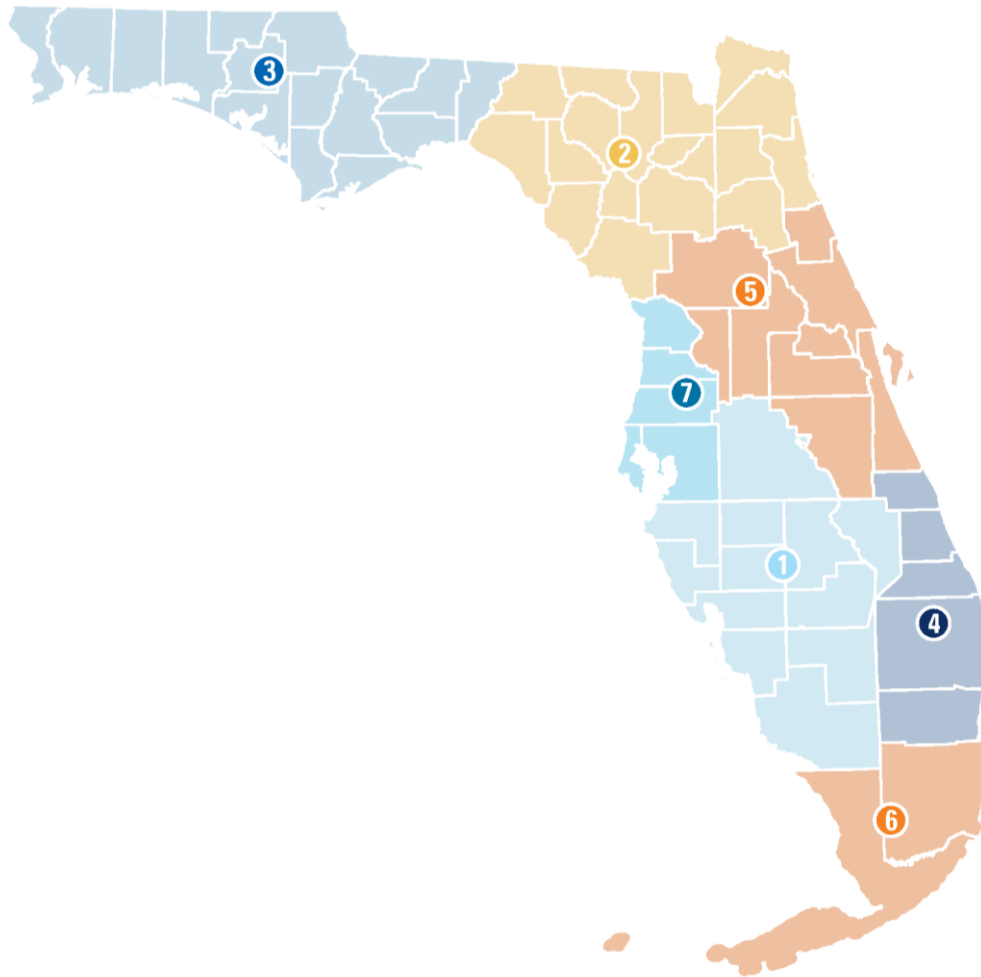
The Study is organized by seven FDOT Districts which encompass Florida's 67 counties. Counties by FDOT District are shown in Table E-2. Figure E-3 is a map of Florida showing the location of FDOT Districts.

Table E-2. FDOT Districts by County

District Number	1	2	3	4	5	6	7
District Name	Southwest Florida	Northeast Florida	Northwest Florida	Southeast Florida	Central Florida	South Florida	West Central Florida
Counties	Charlotte County Collier County DeSoto County Glades County Hardee County Hendry County Highlands County Lee County Manatee County Okeechobee County Polk County Sarasota County	Alachua County Baker County Bradford County Clay County Columbia County Dixie County Duval County Gilchrist County Hamilton County Lafayette County Levy County Madison County Nassau County Putnam County St. Johns County Suwannee County Taylor County Union County	Bay County Calhoun County Escambia County Franklin County Gadsden County Gulf County Holmes County Jackson County Jefferson County Leon County Liberty County Okaloosa County Santa Rosa County Wakulla County Walton County Washington County	Broward County Indian River County Martin County Palm Beach County St. Lucie County	Brevard County Flagler County Lake County Marion County Orange County Osceola County Seminole County Sumter County Volusia County	Miami-Dade County Monroe County	Citrus County Hernando County Hillsborough County Pasco County Pinellas County

Source: FDOT Aviation and Spaceports Office. 2018.

Figure E-3. Map of FDOT Districts



Source: FDOT Aviation and Spaceports Office. 2018.

Econometric models were constructed for each FDOT District and for the rest of Florida (i.e., the impacts generated in other FDOT Districts because of the activity in a said District). The FDOT District geographies were used to provide an accurate assessment of airport impacts in the economies where airports are situated. Given that the economies of each FDOT District vary, including industry mix, productivity of industries, and average payroll per job by industry, the effects of output in one FDOT District may differ from the effects of the same levels of sales in another. The FDOT Districts are the basis for calculating direct impacts. Multiplier effects were calculated by FDOT District and across the rest of Florida to produce both FDOT District-specific and statewide impacts, as summarized in Table E-3.

Table E-3. Regional Approach for Florida

Direct Effects +	Multiplier Effects =	Total FDOT District Impacts +	Multiplier Effects/ Rest of Florida =	Total Florida
District 1	District 1	District 1 Total	Districts 2,3,4,5,6,7	State Impacts of District 1 Airports
District 2	District 2	District 2 Total	Districts 1,3,4,5,6,7	State Impacts of District 2 Airports
District 3	District 3	District 3 Total	Districts 1,2,4,5,6,7	State Impacts of District 3 Airports
District 4	District 4	District 4 Total	Districts 1,2,3,5,6,7	State Impacts of District 4 Airports
District 5	District 5	District 5 Total	Districts 1,2,3,4,6,7	State Impacts of District 5 Airports
District 6	District 6	District 6 Total	Districts 1,2,3,4,5,7	State Impacts of District 6 Airports
District 7	District 7	District 7 Total	Districts 1,2,3,4,5,6	State Impacts of District 7 Airports
Total Direct Impacts				Total State Impacts

Source: EDR Group. 2019.

Multipliers for each industry category were applied to estimate the additional economic activity generated. To estimate the economic impact of Florida airports at various levels of geography, multipliers for each of the seven FDOT District and the rest of Florida were used. Data at these different spatial scales enabled a multi-regional analysis to demonstrate how economic activity in one region can cross geographic boundaries into another region. For example, direct impacts occurring in District 1 generate additional supplier sales and income re-spending that occurs in the rest of the state.

Sectoring: Economic Model Inputs

On-Airport Activity

Data collection efforts from airport managers, FBOs, and on-airport tenants revealed over 100 different industries operating on Florida airports. In some cases, job data was the only information that could be obtained. In these situations, regional economic models were required to estimate payroll and output. In other cases, the surveys reported jobs and payroll. output were then scaled for consistency with the ratio of regional output and payroll for each industry. In the scenarios when only expenditures were provided (such as for construction), jobs and payroll were calculated using the regional models. In all cases, regional and rest of state multiplier streams were calculated through the model. The process for estimating direct impacts of missing values is shown in Table E-3.

To minimize biases introduced when sectors are aggregated, modeling of on-airport impacts spanned the 110 sectors shown in Figure E-4. Aggregating sectors affects the relationships of jobs, payroll, and output, as well as multipliers. The aggregation leads to averaging measures by industries across regions; applying



statewide modeling leads to more extreme inaccuracies. For example, if the “manufacturing” sector is aggregated, aerospace products and refrigerators would be analyzed together despite the significant differences in payroll and output per worker. This leads to avoidable inaccuracies when measuring small or large industries in an EIS.

Table E-4. Sectors Identified and Modeled for On-Airport Economic Impacts

Industries and Sectors	Industries and Sectors	Industries and Sectors
Accounting	Farm machinery & equipment manufacturing	Other support services
Advertising, public relations, & related services	Federal government	Paint & coating manufacturing
Aerospace	Fitness & recreational sports centers	Personal & household goods repair & maintenance
Air transportation	Food & beverage	Personal care services
Aircraft storage	Forestry, forest products, & timber tract production	Pharmaceutical preparation manufacturing
All other food & drinking places	Freight aviation	Plastics material & resin manufacturing
All other miscellaneous manufacturing	General & consumer goods rental except video tapes & discs	Poultry & egg production
Architectural, engineering, & related services	Grantmaking, giving, & social advocacy organizations	Promoters of performing arts, sports, & agents for public figures
Auto repair & maintenance	Ground transportation (tenant)	Racing & track operation
Automatic environmental control manufacturing	Hand tool manufacturing	Real estate
Aviation	Hospitals	Religious organizations
Aviation support services	Hotels	Rendering & meat byproduct processing
Banking & financial services	Industrial process variable instruments manufacturing	Retail
Beef cattle ranching & farming	Industrial truck, trailer, & stacker manufacturing	Retail - Building material, garden equipment, & supplies stores
Boat building	Insurance	Retail - Food & beverage stores
Business & professional associations	Landscape & horticultural services	Retail - Gasoline stores
Cable & other subscription programming	Leather & hide tanning & finishing	Retail - Motor vehicle & parts dealers
Canned fruits	Legal services	Sawmills
Car rental	Lighting fixture manufacturing	Securities & commodity contracts intermediation & brokerage
Commercial & industrial machinery & equipment rental & leasing	Local government electric utilities	Security

Industries and Sectors	Industries and Sectors	Industries and Sectors
Commercial & industrial machinery & equipment repair & maintenance	Management consulting services	Semiconductor & related device manufacturing
Commercial sports except racing	Management of companies & enterprises	Services to buildings
Computer systems design services	Medical & diagnostic laboratories	Sheet metal work manufacturing
Concrete pipe manufacturing	Metal barrels, drums & pails manufacturing	State & local Government
Construction	Military	Travel agent
Courier	Motion picture & video industries	Truck transportation
Crop farming	Museums	Valve & fittings other than plumbing, manufacturing
Crop Spraying	Newspaper publishers	Veterinary services
Data processing, hosting, & related services	Offices of dentists	Waste management & remediation services
Distribution	Offices of other health practitioners	Water transportation
Dry-cleaning & laundry services	Offices of physicians	Water, sewage, & other systems
Electric power generation - All other	Other amusement & recreation industries	Wholesale trade
Elevator & moving stairway manufacturing	Other educational services	Wired telecommunications carriers
Employment services	Other fabricated metal manufacturing	Wireless telecommunications carriers (except satellite)
Entertainment	Other millwork, including flooring	Wood container & pallet manufacturing
Environmental & other technical consulting services	Other personal services	Wood kitchen cabinet & countertop manufacturing

Source: EDR Group. 2019.

Visitor Spending

Visitor spending is entirely calculated from expenditures. During the airport visitor surveys, visiting commercial service and GA passengers were asked for totals spent on lodging, food and beverage, entertainment, retail, cars rented off-airport, and other local transportation. Asking for more details from out-of-state visitors is not reasonable and is a barrier to acquiring responses. Table E-5 displays the sectors used to categorize the visitor spending.

Table E-5. Visitor Spending Classifications

Visitor Spending Categories	Industry Sector
Accommodations	Hotels and motels, including casino hotels
	Other accommodations
Car rental	Automotive equipment rental and leasing
Entertainment	Performing arts companies
	Commercial sports except racing
	Racing and track operation
	Independent artists, writers, and performers
	Museums, historical sites, zoos, and parks
	Amusement parks and arcades
	Gambling industries (except casino hotels)
	Other amusement and recreation industries
	Fitness and recreational sports centers
Food and beverage	Bowling centers
	Full-service restaurants
	Limited-service restaurants
Ground transportation	All other food and drinking places
	Transit and ground passenger transportation
Retail	Transportation support activities
	Retail - Electronics and appliance stores
	Retail - Food and beverage stores
	Retail - Health and personal care stores
	Retail - Clothing and clothing accessories stores
	Retail - Sporting goods, musical instruments, and books
	Retail - General merchandise stores
Conference fees	Retail - Miscellaneous store retailers
	Professional and business associations

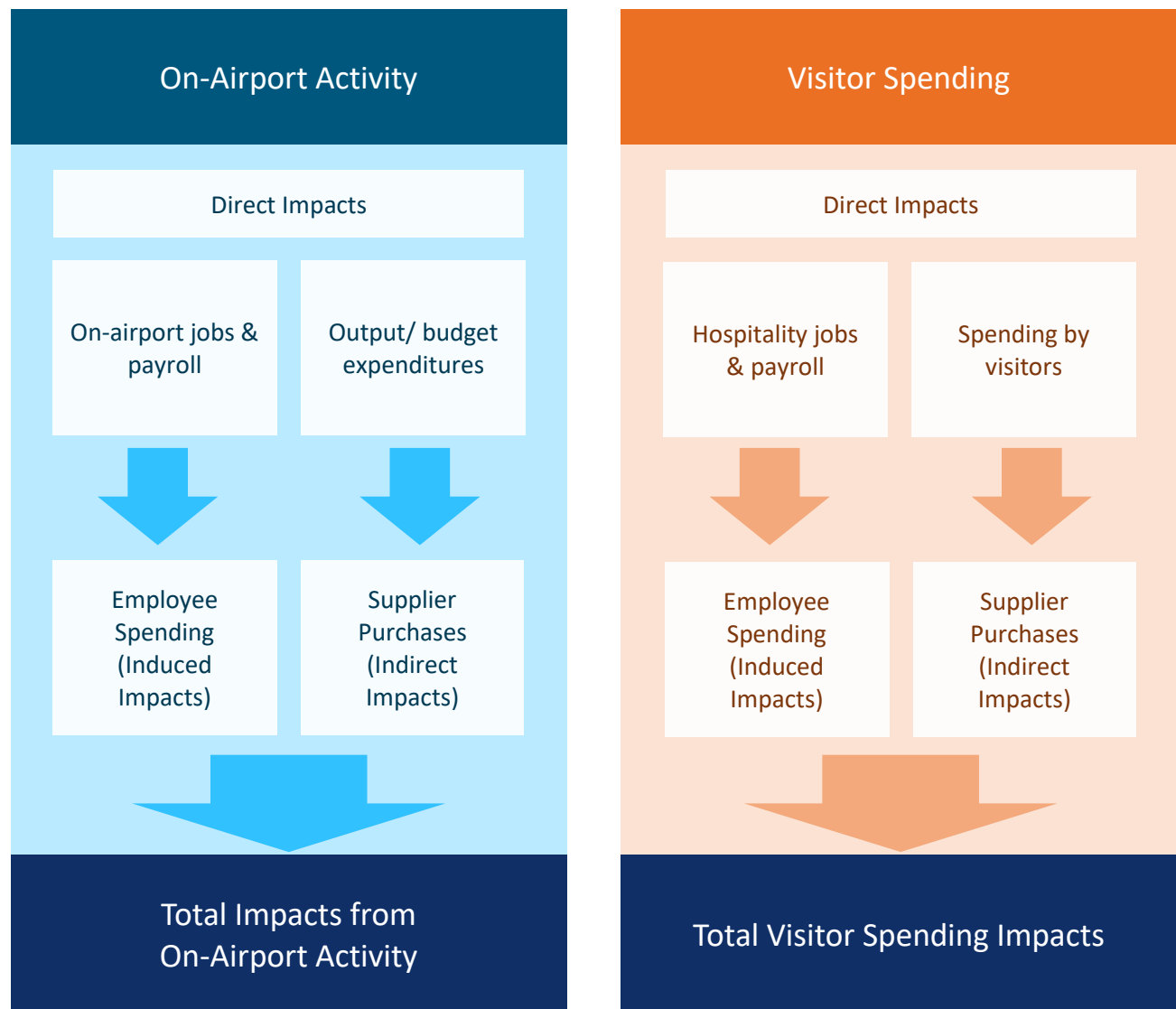
Source: EDR Group. 2019.



Summary

Figure E-4 presents an overall summary of how economic activities on airports and visitor spending facilitated by the airports contributes to the economies of FDOT Districts and the state.

Figure E-4. Process of Estimating the Role of Airports in FDOT District and State Economies



Source: EDR Group and ICF. 2019.



F. Definitions

Terms used through this report are defined below.

Direct impacts stem from activities that are directly related to the provision of services on airports, visitor spending, military spending, or the activity of aviation-reliant businesses. As defined in this Study, direct impacts occur in the industry immediately affected by an activity, whether on- or off-airport. This Study groups activities into four categories: 1) on-airport activity, 2) military spending, 3) out-of-state visitor spending, and 4) industry reliance. On-airport activity and military spending occur on-airport, while visitor spending and industry reliance occur off-airport.

Economic impacts are effects on the level of economic activity in a region or state. Economic impacts in this Study are shown as 1) jobs, 2) payroll (wages, benefits, and profits to workers), and (3) output (essentially output for private companies or expenditures by public agencies).

Indirect and induced impacts (also referred to as multiplier effects or multiplier impacts) are not defined uniformly across economic studies. As defined in this Study, indirect impacts measure the purchase of supplies and services needed to produce directly supplied products and services. Induced effects measure the effects of changes in household income, meaning the effects from the spending of wages earned by workers of directly and indirectly affected industries. Total impacts are the summation of direct impacts and multiplier effects (indirect and induced impacts). For readability, this Study refers to indirect impacts as supplier purchases and induced impacts as employee spending.

Industry reliance includes the portion of business activity that depends on the provision of air service. For this Study, industry reliance impacts include only businesses identified by airport managers, not all businesses in Florida.

Input/Output is a model that tracks the relationships between the industries of an economy by estimating the scale of what each industry sells to other industries and what each industry buys from other industries. This includes what industries sell to households and what is purchased from industries by households. The circulation of dollars from these purchases and sales is how multiplier effects are generated.

Jobs are the sum of full-time and part-time jobs. This concept is also known as “headcount,” where one full-time job and one part-time job equals two jobs. This definition is consistent with the U.S. Bureau of Economic Analysis (BEA) and the Bureau of Labor Statistics Covered Employment and Wages and is part of the IMPLAN modeling system (as well as RIMS II multipliers). In this Study, jobs include wage and salary jobs, sole proprietorships, and individual general partners, but not unpaid family workers nor volunteers (this is consistent with BEA).

Payroll includes total compensation for work, including gross wages, salaries, proprietor income, employer-provided benefits, and taxes paid to governments on behalf of employees.

Margin is sales receipts minus the cost of the goods received from the producer, leaving the markup by retailers plus any taxes (e.g., sales taxes) collected by the retail establishment. Employment and payroll



generated by retail sales are based on mark-ups and do not include the cost of the good to retailers that must be paid to the producer.

Military spending includes capital expenditures and jobs on military airports, as well as payroll earned by the jobs.

NAICS (North American Industrial Classification System) is the means used by federal statistical agencies to classify business establishments for collecting, analyzing, and publishing statistical data related to the U.S. business economy. NAICS is organized by sectors and each sector is numbered. The specificity of a sector is analogous to the number of “digits” represented by that sector. For example, sector 48-49 (considered a two-digit sector) is “transportation and warehousing;” sector 481 is “air transportation;” and sector 4811 is “scheduled passenger transportation.”

On-airport activity broadly include airside activities, terminal services to passengers (including concessions), air-related services by government agencies, construction, and airport administration. Non-aviation businesses can also be located on the airport premises.

Visitor spending is defined as off-airport spending by out-of-state visitors who arrive in Florida using commercial or GA air service. Typical spending categories are retail purchases, food and drink, entertainment, lodging, and off-airport transportation services including car rental services.



G. Survey Instruments

The FDOT Aviation and Spaceports Office used the following six surveys to collect primary data for the Study.



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street, MS 46
Tallahassee, FL 32399

MIKE DEW
SECRETARY

October 13, 2017

Name
Organization
Address
City, State Zip

RE: Aviation Economic Impact Study

Dear Florida Airport Owner/Management Representative:

The Florida Department of Transportation (FDOT) Aviation and Spaceports Office (ASO) is updating the Florida Statewide Aviation Economic Impact Study. This update will quantify aviation's economic contributions to our state and summarize the benefits our airports provide throughout Florida.

Please help us make this study a success by completing the enclosed survey for your airport and responding to requests from our consulting team led by Kimley-Horn. A member of our team will also visit your airport to gather additional information and discuss your airport's economic activities. Your participation is vital toward completing a successful study and is greatly appreciated.

The survey includes questions about your airport's staffing, expenditures, and economic activities. In addition, a separate addendum requests information about your airport's tenants (those with employees at the airport); fixed-base operators (FBOs), government agencies, and other businesses located on the airport property; businesses that base aircraft at your airport; non-local businesses that frequently use your airport; and local businesses that rely on your airport. Once we have received this information, we will distribute separate surveys to the many businesses that rely on the services you provide to collect information on how they utilize Florida airports, as well as other relevant data.

The enclosed Airport Manager's Survey can be completed in electronic or hard copy formats. If you received this request via email, please complete the attached fillable PDF survey forms and return to zach.deveau@kimley-horn.com. Alternatively, you are welcome to complete the survey forms by hand and return via mail to Zach DeVeau at Kimley-Horn, 2615 Centennial Boulevard, Suite 102, Tallahassee, FL 32308. Please note that the survey only needs to be completed in one of the above formats. **Please complete and return your survey by November 3, 2017.**

We appreciate your willingness to provide important information for this study and help us demonstrate the value of aviation to Florida. If you have any questions regarding this study or the enclosed survey, please contact the project team: Todd Cox at 850-414-4510 or todd.cox@dot.state.fl.us or Jon Sewell of Kimley-Horn at (850) 553-3515 or jon.sewell@kimley-horn.com.

Sincerely,

Todd A. Cox, C.M., FCCM
FDOT Aviation & Spaceports Office



AIRPORT MANAGEMENT SURVEY

The Florida Department of Transportation (FDOT) has launched a study to measure the economic value of Florida airports to their communities and to the state. This study's purpose is to collect information to help measure economic impacts of individual airports and the State's airport system. An important part of this study involves surveying airport management. The information provided in this survey will be used to prepare this analysis as well as quantify how airports impact Florida's economy.

To make this project successful, accurate data is needed in order to properly determine the economic impact of Florida's aviation industry. The information that is provided on these surveys is the basis of this study. As such, your participation is greatly appreciated and crucial to the success of this study. We ask that you please review this survey and provide a completed version to us no later than November 3, 2017. We will be following up on this survey in the next few weeks to answer any questions that you may have.

(Note: Responses will be aggregated and summarized, so no specific details will be reported.)

AIRPORT INFORMATION

1. **Airport Name:** _____
- Contact Name:** _____ **Phone Number:** _____
- Email Address:** _____

EMPLOYMENT

2. During 2016, how many full-time and part-time employees were employed by the airport? (Please include any contract workers who work at the airport, but are not strictly considered "employees.")

	Number of Employees
Airport Employees – Full Time	
Airport Employees – Part Time	
Airport FBO Employees – Full Time	
Airport FBO Employees – Part Time	
Airport Contract Employees – Full Time	
Airport Contract Employees – Part Time	
Total	

Other Comments:



EXPENDITURES

3. Please report the total 2016 annual wages and benefits paid to all employees (total from question 2) employed by the airport: \$_____

4. Please report how much the airport spent on capital improvements over the last 3 years. Please include federal, state, and local funding:

\$_____ In 2014 \$_____ In 2015 \$_____ In 2016

5. Omitting the expenditure categories above (i.e., payroll and capital improvements), please report how much your airport spent for all other operating expenses in 2016: \$_____

Answer only if your airport is privately owned:

6. If this is a privately-owned airport, what were the total 2016 real estate taxes (local & state) paid to your locality and to the State of Florida? Please itemize local and state taxes, by type of tax.

Local Tax		State Tax	
Type of Tax	Amount	Type of Tax	Amount
	\$		\$
	\$		\$
	\$		\$

AIRPORT TENANTS, BASED AIRCRAFT, AND NON-LOCAL BUSINESSES:

Please complete the attached spreadsheet with the information requested below. Your responses can be emailed to Zach DeVeau at zach.deveau@kimley-horn.com. If you prefer to submit hard copies, please mail them to Zach DeVeau at Kimley-Horn, 2615 Centennial Boulevard, Suite 102, Tallahassee, FL 32308.

7. Please include a list of all **FBOs, tenants, government agencies and other businesses at your airport:**

- ⊙ Company Name, Type of Firm, and Contact Person
- ⊙ Complete Mailing Address, Phone Number, and Email Address, if available
- ⊙ Number of Full-Time Employees, if known
- ⊙ Number of Part-Time Employees, if known

8. If you have reports of gross revenues earned by tenants (FBO's, MRO's, etc.) on the airport in 2016, please provide these. **This information will be held in strict confidence.** It will help expedite the study process by eliminating multiple requests to tenants to complete surveys and will help ensure accurate representation of the economic contributions of your airport.



9. Other than those listed above in Question 7, please include a list of all businesses that have based aircraft at your airport. This list should include the following information:
- ☐ Company Name, Type of Firm, and Contact Person
 - ☐ Complete Mailing Address and Phone Number
 - ☐ Number of Full-Time Employees, if known
 - ☐ Number of Part-Time Employees, if known
10. Please include a list of all non-local businesses that make frequent use of your airport to access the surrounding area. The list should include the following information:
- ☐ Company Name, Type of Firm, and Contact Person
 - ☐ Complete Mailing Address and Phone Number
11. Please include a list of all local businesses of which you are aware that rely on your airport, especially those that do **not** own aircraft. The list should include the following information:
- ☐ Company Name, Type of Firm, and Contact Person
 - ☐ Complete Mailing Address and Phone Number
12. In addition to the survey responses, please also provide the following support materials, as available:
- ☐ Most recent airport master plan and ALP
 - ☐ Most recent annual report
 - ☐ Previous studies conducted concerning economic impact at your airport (do not include previous FDOT economic impact studies)
 - ☐ In-house or other promotional descriptions written about your airport
13. Does your airport have a co-located business/office/industrial park? _____ *If yes, please describe:*

Business Park Manager: _____

Name: _____ **Phone Number:** _____

Email Address: _____

AIRPORT ACTIVITY

14. Please report the number of operations (takeoffs and landings) at your airport in 2016:
GA: _____ Commercial (Scheduled Service): _____
15. Please estimate the percentage of 2016 transient general aviation traffic at your airport: _____%
16. What is the average number of passengers (including pilot) per GA operation at your airport? _____

AVIATION ACTIVITY

17. This study is also concerned with the many quality-of-life benefits that airports provide, which are often not measurable in monetary terms. Please check all applicable activities/attributes that are typical, these can be occasional activities at your airport.

- | | |
|--|--|
| <input type="checkbox"/> Recreational flying and/or parachuting | <input type="checkbox"/> Shipping of perishable goods |
| <input type="checkbox"/> Ballooning | <input type="checkbox"/> Career training / Education |
| <input type="checkbox"/> Agricultural spraying | <input type="checkbox"/> Search & Rescue |
| <input type="checkbox"/> Freight / Cargo activity | <input type="checkbox"/> Flight training |
| <input type="checkbox"/> Traffic / News reporting | <input type="checkbox"/> Emergency medical aviation |
| <input type="checkbox"/> Corporate / Business activity | <input type="checkbox"/> Gateway for VIPs / High profile visitors |
| <input type="checkbox"/> Environmental patrol | <input type="checkbox"/> Staging area for community events |
| <input type="checkbox"/> Aerial photography / Surveying | <input type="checkbox"/> Police / Law enforcement |
| <input type="checkbox"/> Aerial inspections (pipeline, electric, etc.) | <input type="checkbox"/> Location for community facilities/utilities |
| <input type="checkbox"/> Aerial advertising / banner towing | <input type="checkbox"/> Public charters |
| <input type="checkbox"/> Promotional activities (open houses, air shows, fly-in's, etc.) | <input type="checkbox"/> Preservation of open space/wetlands/woodlands |
| <input type="checkbox"/> Aerial/wildland firefighting | <input type="checkbox"/> Prisoner transport |
| <input type="checkbox"/> Military exercises/training | <input type="checkbox"/> Real estate tours |
| <input type="checkbox"/> Other: _____ | |

18. Please provide very brief descriptions the three most important items checked above (ex., "Channel 8 news helicopter" or "Annual June Air Show") regarding the above checked activities.

19. Please use the space below to discuss any special attributes of this airport, or ways in which it is special or important to the community served. Please note if your airport sponsors any community events and identify other ways your airport benefits the local community or area businesses. Also, discuss how the community has supported the airport, as applicable. If there are any available anecdotes, testimonials, or quotes that highlight the value of your airport to the community or local businesses, please provide them as well.



20. Please check all surface modes of transportation available at your airport.

- | | | |
|---------------------------------------|--|---|
| <input type="checkbox"/> Courtesy Car | <input type="checkbox"/> Limousine Service | <input type="checkbox"/> Taxi Cab |
| <input type="checkbox"/> Bus | <input type="checkbox"/> Rail | <input type="checkbox"/> Uber/Lyft or Similar |
| <input type="checkbox"/> Other _____ | | |

21. Can you please summarize any significant changes that have occurred at your airport since 2012 that may have affected the economic impact (ex: opening of an MRO, runway extension, etc.)?

Please complete and return your survey by November 3, 2017. We appreciate your willingness to provide important information for this study and help us demonstrate the value of aviation to Florida. If you have any questions regarding this study or the enclosed survey, please contact Zach DeVeau at of Kimley-Horn at (850) 553-3530 or zach.deveau@kimley-horn.com.

Once again, thank you for your assistance.

Should you have any further questions about the study, please contact:

Todd Cox, Aviation Program Development Manager

850-414-4510

todd.cox@dot.state.fl.us

AIRPORT MANAGER'S ADDENDUM

The following questions relate to questions 7 through 11 on the survey.

Airport Name: _____

1. Please include a list of all FBOs, tenants, government agencies and other businesses at your airport. If you have reports of gross revenues earned by tenants (FBO's, MRO's, etc.) on the airport in 2016, please provide these. This information will be held in strict confidence. It will help expedite the study process by eliminating multiple requests to tenants to complete surveys and will help ensure accurate representation of the economic contributions of your airport.

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____



Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____



Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____



Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____



Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____



Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____



Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____ Gross Revenues: _____



2. Other than those listed above in Question 1, please include a list of all businesses that have based aircraft at your airport. This list should include the following information:

Company Name: _____ Type of Firm: _____
Contact Name: _____ Telephone: _____ Email: _____
Mailing Address: _____
Estimated # Full Time Employees: _____ # Part Time Employees: _____

Company Name: _____ Type of Firm: _____
Contact Name: _____ Telephone: _____ Email: _____
Mailing Address: _____
Estimated # Full Time Employees: _____ # Part Time Employees: _____

Company Name: _____ Type of Firm: _____
Contact Name: _____ Telephone: _____ Email: _____
Mailing Address: _____
Estimated # Full Time Employees: _____ # Part Time Employees: _____

Company Name: _____ Type of Firm: _____
Contact Name: _____ Telephone: _____ Email: _____
Mailing Address: _____
Estimated # Full Time Employees: _____ # Part Time Employees: _____

Company Name: _____ Type of Firm: _____
Contact Name: _____ Telephone: _____ Email: _____
Mailing Address: _____
Estimated # Full Time Employees: _____ # Part Time Employees: _____



Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Estimated # Full Time Employees: _____ # Part Time Employees: _____



3. Please include a list of all non-local businesses that make frequent use of your airport to access the surrounding area. This list should include the following information:

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____



Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

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Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____



4. Please include a list of all local businesses of which you are aware that rely on your airport, especially those that do not own aircraft. The list should include the following information:

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____



Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____

Company Name: _____ Type of Firm: _____

Contact Name: _____ Telephone: _____ Email: _____

Mailing Address: _____



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street, MS 46
Tallahassee, FL 32399

MIKE DEW
SECRETARY

RE: Aviation Economic Impact Study

Dear Florida Airport Business/Employer:

The Florida Department of Transportation (FDOT) Aviation and Spaceports Office (ASO) is excited to announce that we are updating the Florida Statewide Aviation Economic Impact Study. Similar to the previous study completed in 2014, the 2017 update will quantify aviation's economic contributions to our state and summarize the benefits our airports provide throughout Florida. As a result, the findings of the report will support continuing Florida's significant contribution to aviation.

Reaching out to all public-use airports and their on-airport businesses in the state to obtain information is a vital component of this work. Please help us make the 2017 update a success by completing the enclosed survey regarding your on-airport business. The information you provide will be aggregated with all other respondents. Individual business information will not be presented in the report.

The enclosed survey can be completed in both electronic and written formats. If you received this via email, you can complete the attached fillable PDF form or you can access the survey online at: www.surveymonkey.com/r/AirportTenantSurvey17. You are also welcome to complete the survey in writing and email it to zach.deveau@kimley-horn.com or mail to Zach DeVeau at: 2615 Centennial Blvd., St. 102, Tallahassee, FL 32308

Please complete and return your survey within the next 10 days. We appreciate your willingness to provide important information for this study. If you have any questions regarding this study or the survey, please contact the project team: Todd Cox at 850-414-4510 or todd.cox@dot.state.fl.us or Jon Sewell of Kimley-Horn at (850) 553-3515 or jon.sewell@kimley-horn.com.

Sincerely,

Todd A. Cox, C.M., FCCM
FDOT Aviation & Spaceports Office



AIRPORT TENANT SURVEY

The Florida Department of Transportation (FDOT) has launched a study to measure the economic value of Florida airports to their communities and to the state. This study's purpose is to collect information to help measure economic impacts of individual airports and the State's airport system. An important part of this study involves surveying airport tenants. The information provided in this survey will be used to prepare this analysis as well as quantify how airports impact Florida's economy.

To make this project successful, accurate data is needed in order to properly determine the economic impact of Florida's aviation industry. The information that is provided on these surveys is the basis of this study. As such, your participation is greatly appreciated and crucial to the success of this study. We will be following up on this survey in the next few weeks to answer any questions that you may have.

(Note: Responses will be aggregated and summarized, so no specific details will be reported.)

AIRPORT INFORMATION

1. **Airport Name:** _____

BUSINESS/COMPANY INFORMATION

2. **Company Name:** _____

Contact Name: _____

Telephone Number: _____

Email Address: _____

TYPE OF BUSINESS

3. What area of aviation-related activity best describes your company's activities at the airport? (please check only one)

Air Transportation	Facility Maintenance (buildings)	Flight Training
FBO	Grounds Maintenance	Retail
Aviation Related Manufacturing/Repair	Security/not TSA or Police	Concession (restaurant, bar, etc.)
General Manufacturing	Construction	Car Rental
FAA	Wholesale & Distribution	Ground Transportation (other than car rental)
Other Federal Government (Not Military or TSA)	Courier/overnight delivery services	Hotel (on airport)
Military	Crop Spraying	Flight Training
Local/Regional Government	Facility Maintenance (buildings)	Firefighting
TSA	Local/Regional Police	

Other (please specify type of business: _____)



EMPLOYMENT

4. During 2016, how many employees were employed by your company at the airport?

Full-time employees: _____

Part-time employees: _____

EXPENDITURES

5. Please report the total annual payroll (including wages and benefits) paid to all employees at this airport in 2016: \$_____
6. If you pay real estate taxes directly to your locality please provide the total real estate taxes paid by your company in 2016: \$_____
7. Please estimate how much your company spent for capital improvements in the following years:
- | | |
|---------------|---------------|
| 2013: \$_____ | 2015: \$_____ |
| 2014: \$_____ | 2016: \$_____ |
8. Please comment on any additional economic benefits or services that your businesses provides to the local community.

Please complete and return this survey within ten (10) days of receiving it. If you have any questions regarding this survey, please contact Zach DeVeau at Zach.DeVeau@kimley-horn.com or 850-553-3530.



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street, MS 46
Tallahassee, FL 32399

MIKE DEW
SECRETARY

RE: Aviation Economic Impact Study

Dear Off-Airport Business User:

Air transportation is vital to many Florida businesses. Whether air trips are to collaborate with vendors or clients, or shipping vital products and communications, air transport services are a key part of Florida's infrastructure.

I am writing to ask for your help in understanding your business's experiences and views regarding commercial and general aviation airports in Florida. The best way we have of learning about your business's aviation-related activities is by asking Florida businesses to share their experiences and views. Your business is one of only a small number that have been selected to help in this survey.

To make sure that we hear from all different types of Florida businesses, please have a member of your staff who is knowledgeable about your business's use of airports complete the questionnaire. We hope that you will be able to complete the questionnaire so that we can summarize the results more quickly and accurately. Doing that is easy: just use the link below to access the survey!

www.surveymonkey.com/r/Off-AirportBusinessSurvey

We realize that sometimes it is easier to complete questionnaires by hand. If you prefer, please complete the enclosed questionnaire and scan and email it to us at zach.deveau@kimley-horn.com. Your business's participation in this survey is completely voluntary and you may stop at any time or skip any question you do not wish to answer. The questionnaire should take about 10 minutes to complete.

By taking a few minutes to share your business's experiences and views about Florida airports you will be helping us out a great deal. I hope you enjoy completing the questionnaire and look forward to receiving your responses.

Sincerely,

Todd A. Cox, C.M., FCCM
FDOT Aviation & Spaceports Office



OFF-AIRPORT BUSINESS SURVEY

The Florida Department of Transportation (FDOT) has launched a study to measure the economic value of Florida airports to their communities and to the state. This study's purpose is to collect information to help measure economic impacts of individual airports and the State's airport system. An important part of this study involves surveying off-airport businesses that depend on the airport. The information provided in this survey will be used to prepare this analysis as well as quantify how airports impact Florida's economy.

To make this project successful, accurate data is needed in order to properly determine the economic impact of Florida's aviation industry. The information that is provided on these surveys is the basis of this study. As such, your participation is greatly appreciated and crucial to the success of this study. We will be following up on this survey in the next few weeks to answer any questions that you may have.

(Note: Responses will be aggregated and summarized, so no specific details will be reported.)

1. What is your firm's primary product or service? (Select only one)

Agriculture, forestry, fishing & hunting	Digital and/or print information	Lodging
Mining, quarrying, oil & gas extraction	Finance & insurance	Restaurant, bar & other food service
Utilities	Real estate and rental & leasing	Educational services
Construction	Professional, scientific & technical services	Health care
Manufacturing	Administrative and support services	Social assistance
Transportation & warehousing	Waste management & remediation services	Arts, entertainment & recreation
Wholesale trade	Retail trade	Other services (except public administration)

Other (please specify) _____

2. How many full-time and part-time people does your business employ (including contracted staff of labor) in Florida?

Full-time employees _____

Part-time employees _____

3. Please mark one box for each item below that is applicable to your business

	Yes	No
Own general aviation aircraft?		
Use general aviation charters or air taxis?		
Lease a general aviation aircraft?		
Have a fractional ownership in an aircraft?		
Our company does not utilize general aviation aircraft		



4. How does your company use commercial service and general aviation airports in Florida?
Please check all that apply:

	Commercial Service Airports	General Aviation Airports
To ship in supplies, raw materials, and/or intermediate goods		
To ship (out) your products		
To transport company personnel		
To transport customers and business associates		
Other (please specify):		

5. Using the ranges below, please provide your best estimate of the percentage of your company's business revenues that depend on your use of Florida airports.

100%, totally dependent	11% - 25%
81% - 99%	1% - 10%
51% - 80%	0%, Does not use
26% - 50%	

6. In general, how important are Florida's airports, if at all, to your business? Mark one box (X).

Very important
Somewhat important
Neither important nor unimportant
Somewhat unimportant
Very unimportant

**QUESTIONS 7 THROUGH 9 ARE RELATED TO THE USE OF COMMERCIAL SERVICE
AIRLINE TRANSPORTATION FOR BUSINESS**

7. Do any of your clients or vendors use commercial airline transportation to visit your local business site, or not? Mark one box (X).

Yes	➡	GO TO QUESTION 7A
No	➡	SKIP TO QUESTION 8
Don't know	➡	SKIP TO QUESTION 8

7a. About how many air trips (visits) do clients or vendors make to your business in a year? Your best estimate is okay.

_____ number of air trips (visits) per year



7b. What are the top three (3) locations from which your clients or vendors fly to visit your business? Please enter the location(s) below.

_____ top (most frequent) location
_____ second most frequent location
_____ third most frequent location

8. Do any of your company's Florida-based employees take air trips for business?
Mark one box (X).

Yes	➡	GO TO QUESTION 8A
No	➡	SKIP TO QUESTION 10
Don't know	➡	SKIP TO QUESTION 10

8a. About how many air trips for business were taken by your Florida-based employees over the last year? Your best guess is okay.

_____ number of air trips per year

8b. About what percentage of those air trips was domestic travel, and what percentage was international travel? Your best guess is okay.

_____ % domestic travel trips
_____ % international travel trips

9. Thinking now about all of your business's Florida-based activity, about what percentage of your business's activity depends on the availability of commercial service airports? Your best guess is okay.

100%, totally dependent	11% - 25%
81% - 99%	1% - 10%
51% - 80%	0%, Does not use
26% - 50%	

QUESTIONS 10 THROUGH 14 ARE RELATED TO THE USE OF GENERAL AVIATION AIRPORT TRANSPORTATION FOR BUSINESS

10. Which Florida airports does your company use for general aviation? Please enter the airport name and estimated number of landings below. Please skip this question if your company does not use general aviation.

Florida Airport Name	Estimated Number of Annual Landings



11. Do any of your clients or vendors use general aviation aircraft to visit your local business site?
Mark one box (X).

Yes	→	GO TO QUESTION 11A
No	→	SKIP TO QUESTION 13
Don't know	→	SKIP TO QUESTION 13

11a. About how many air trips (visits) do clients or vendors make to your business using general aviation aircraft in a year? Your best guess is okay.

_____ number of air trips (visits) per year

11b. What are the top three (3) locations from which your clients or vendors fly general aviation aircraft to visit your business? Please enter the location(s) below.

_____ top (most frequent) location

_____ second most frequent location

_____ third most frequent location

12. About what percentage of your business's activity depends on the availability of general aviation airports? Your best guess is okay.

100%, totally dependent	11% - 25%
81% - 99%	1% - 10%
51% - 80%	0 %, Does not use
26% - 50%	

13. Which type(s) of air cargo services does your business use, if any? Mark all that apply (X).

Documents less than 2 pounds

Parcels from 2 to 70 pounds

Freight greater than 70 pounds

None

Please return survey to:

Zach.DeVeau@kimley-horn.com

Once again, thank you for your assistance.

Should you have questions about the study, please contact:

Todd Cox, Aviation Program Development Manager

850-414-4510

Todd.Cox@dot.state.fl.us



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street, MS 46
Tallahassee, FL 32399

MIKE DEW
SECRETARY

RE: Aviation Economic Impact Study:

Dear Based Aircraft Business:

Florida's Department of Transportation is conducting an Aviation Economic Impact Study for public use airports in the state. This study will allow the Department to educate the public and decision makers on the various ways that airports support the Florida's region economies as well as the statewide economy.

We need your help in providing accurate and complete information necessary to conduct the Economic Impact Study. You are being sent this survey because your business owns or leases one or more aircraft based at a Florida airport.

Please take a moment to complete the survey. For your convenience, a link for the short survey is provided (www.surveymonkey.com/r/BasedAircraftBusinessSurvey). Completing this survey will help us estimate business reliance on airports in the region.

The information you provide will be kept confidential. It will be sent directly to our consultants and aggregated with all other respondents.

We appreciate your willingness to provide important information for this study and help us demonstrate the value of aviation to Florida. If you have any questions regarding this study or the enclosed survey, please contact Zach DeVeau at: zach.deveau@kimley-horn.com or 850-553-3530.

Sincerely,

Todd A. Cox, C.M., FCCM
FDOT Aviation & Spaceports Office



BASED AIRCRAFT BUSINESS SURVEY

The Florida Department of Transportation (FDOT) has launched a study to measure the economic value of Florida airports to their communities and to the state. This study's purpose is to collect information to help measure economic impacts of individual airports and the State's airport system. An important part of this study involves surveying businesses with based aircraft. The information provided in this survey will be used to prepare this analysis as well as quantify how airports impact Florida's economy.

To make this project successful, accurate data is needed in order to properly determine the economic impact of Florida's aviation industry. The information that is provided on these surveys is the basis of this study. As such, your participation is greatly appreciated and crucial to the success of this study. We ask that you please review this survey and provide a completed version to us in the next two weeks. We will be following up on this survey in the next few weeks to answer any questions that you may have.

(Note: Responses will be aggregated and summarized, so no specific details will be reported.)

AIRPORT INFORMATION

1. **Airport where aircraft(s) is/are based:** _____
2. **Your Company Name:** _____
3. **Address:** _____
4. **Contact Name:** _____
5. **Phone Number:** _____
6. **Email:** _____

7. What is your firm's primary product or service? Please check any that apply:

Air Transportation	Military	Courier/Overnight Delivery Services
Aviation-Related Manufacturing	Banking	Wholesale & Distribution
Aviation-Maintenance- Repair or Overhaul (MRO)	Other Financial Services (please specify)	Restaurant and/or Bar
Crop Spraying	Business Services/ Consulting	Retail
Other Manufacturing (please specify)	University or College	Car Rental
Federal Government/ Not Military	Other Education (please specify)	Hotel
Local/Regional/State Government	Public Safety/Security	Other (please specify)
Construction		

Specify: _____



8. In general, how many people does your business employ, including contracted staff or labor, locally, including yourself? (If none, please enter 0.)

Full-time employees _____

Part-time employees _____

9. How does your company use the aircraft that you base at this airport? Please check all that apply:

To ship in supplies, raw materials, and/or intermediate goods

To ship (out) your products

To transport company personnel

To transport customers and business associates

Other (please specify): _____

10. Using the ranges below, please provide your best estimate of the percentage of your company's business sales that depend on the use of aircraft based at Florida airports. Check 100% if your business is totally dependent on its based aircraft.

100% Totally dependent

81% to 99%

51% to 80%

26% to 50%

11% to 25%

1% to 10%

0% Does not use

Please return survey to:

Zach.DeVeau@kimley-horn.com

Once again, thank you for your assistance.

Should you have questions about the study, please contact:

Todd Cox, Aviation Program Development Manager

850-414-4510

Todd.Cox@dot.state.fl.us

Attention Pilots & Travelers

Did you know that aviation in Florida generates over \$144 Billion in economic benefit to Floridians?

The Florida Department of Transportation is conducting a study to measure the impacts that Florida's airports have on the economy of the state and our local communities.

Please fill out a survey and return it to the airport,
or complete online at

**[www.surveymonkey.com/r/FDOT_](http://www.surveymonkey.com/r/FDOT_GeneralAviationSurvey)
[General AviationSurvey](http://www.surveymonkey.com/r/FDOT_GeneralAviationSurvey)**

or by scanning the QR code below.

Thank you for your assistance!

Your responses will be held in strict confidence.



For more information contact:

Todd Cox, FDOT Aviation Program

Development Manager

580-414-4510

todd.cox@dot.state.fl.us



COMMERCIAL PASSENGER SURVEY

GENERAL

1. Airport: _____ (filled in by surveyor)
2. Are you:
 - ☐ A resident of Florida?
If Resident: What is your Postal Zip Code? _____
 - ☐ An out of state resident, using this airport to connect to/from a different destination?
 - ☐ A Visitor to Florida from another state or country?
 - ☐ Where is your place of residence?
 - U.S. State _____ or
 - Nation, if not from U.S. _____
3. What is the primary purpose of your trip?
 - ☐ Business
 - ☐ Convention
 - ☐ Pleasure
 - ☐ Personal matter
 - ☐ Other (please specify: _____)

If your trip is business related, please answer either of the following questions that apply:

What is the major product or service provided by your company? _____, or

What is the major product or service provided by the company you are visiting?

Ex: Pharmaceutical sales, financial planning, etc.
4. How many people are in your party for this trip? _____

If more than 1, how many travelers are: ____under 18 years old ____18 or older
5. How many nights did you, or will you spend in Florida during this trip? _____

What city did you primarily stay in? _____



6. What kind of overnight accommodations did you stay in?

- ☐ Hotel/Motel/Resort (paid lodging)
- ☐ Private Home (free lodging)
- ☐ AirBnb or other commercial lodging
- ☐ Other (please specify _____)

7. How much did you spend Off-Airport on each item below while visiting the _____? (Input local region/airport here)

- A. Lodging: \$ _____
- B. Entertainment: \$ _____
- C. Rental/Car if rented outside the airport: \$ _____
- D. Taxi/UBER/Lyft/Other Rider sharing: \$ _____
- E. Other Transport: \$ _____
- F. Food/Beverage: \$ _____
- G. Retail Purchases: \$ _____
- H. Event or conference fees: \$ _____
- I. Other (**specify** _____): \$ _____

8. How many people in your traveling party are covered by these expenditures?

- ☐ Just me
- ☐ Entire party

Thank you for your time. Do you have any additional comments about your experience at this airport?

Have a good trip!