## Airport Profile

# Jacksonville International Airport

Jacksonville International Airport (JAX) is located in Duval County, Florida about 13 miles north of downtown Jacksonville, Florida. JAX was constructed in 1968 to replace Imeson Airfield (Jacksonville Municipal Airport) based on the growing demand for jet aircraft.

Jacksonville is the largest city (by land area) in the continental United States, as it shares its boundaries with Duval County. The city is home to a National Football League (NFL) team as well as the University of North Florida. Known as the First Coast, Jacksonville is a favorite city of many tourists due to its Northeastern location in Florida.

Since 2013, JAX has experienced an increasing number of both annual enplanements and annual passengers. JAX served 27 domestic destinations in 2015, adding a destination since the last version of this report.



2015
BY THE NUMBERS

2,748,451 Enplanements

2,714,872 Passengers

\$191.86 Average Fare

27 U.S. Cities Served

> 4 Intrastate Destinations

International
Destinations



#### **Data Explanation**

For this report, three key data sources were used: *Passenger Origin-Destination Survey* from the U.S. Department of Transportation, the Official Airline Guide (OAG) and Airline Reporting Corporation (ARC). In this profile, data are combined and compared in order to identify general trends about the airport, as well as offer certain analysis on the findings. A description of these data sources is presented below. Throughout the text, the data sources will be further explained, but this section provides a general overview of the data used in the development of this Airport Air Service Profile.

#### Air Passenger Origin and Destination (O&D) Survey

**DB1B Coupon**: The Airline Origin and Destination Survey (DB1B) is a 10 percent sample of airline tickets from reporting carriers collected by the Office of Airline Information of the Bureau of Transportation Statistics. Data from this source provides coupon-specific information for each domestic itinerary of the Origin and Destination Survey.

**T-100 Domestic Market**: This data source contains domestic market data reported by both U.S. and foreign air carriers, including carrier, origin, destination, and service class for enplaned passengers, freight and mail when both origin and destination airports are located within the boundaries of the United States and its territories.

#### Official Airline Guide (OAG)

OAG data were summarized as weekly averages for the reported year. All OAG data are for direct flights and represents statistically significant samples of data.

#### Airline Reporting Corporation (ARC)

The data provided by this source represent a statistically significant and representative sample of airline tickets purchased with a consumer form of payment through an ARC-accredited agency, including major online travel agencies (OTAs), such as Expedia, Orbitz, and Travelocity.

The data represent a 10 percent sample, an industry standard sample size, of passengers from participating agencies. Passenger volumes represented by the data can vary significantly by individual markets, depending on several factors including, but not limited to, the following: 1) the overall composition of air travelers (leisure vs. business); 2) the presence of carriers whose distribution is more heavily weighted toward the direct vs. agency channel (e.g. low cost carriers); and 3) the presence of carriers with limited participation in the ARC settlement system (e.g. Southwest Airlines).

The data used represent passengers and zip codes from where in Florida tickets were purchased. The data include purchases from Florida zip codes only. Because the data in this document represent consumer purchases of airline tickets, there is a natural bias toward leisure and unmanaged business travel behavior and may not account for all business travel. There also may be limitations due to misrepresentation of the passenger information in instances where a person from one zip code purchased a ticket for another person in a different zip code.

Airline Reporting Corporation (ARC) did not assist in the preparation of this analysis, all analyses disclosed herein were performed by Kimley-Horn and Associates, INC., the consultant to the Florida Department of Transportation, Aviation and Spaceports Office.



#### Jacksonville International Airport Air Service Summary

#### Introduction

Jacksonville International Airport (JAX), although relatively new among commercial service airports, has already grown into one of the largest airports in the state. The airport is currently served by two runways measuring 7,701 feet and 10,000 feet. Together, these runways served 2,748,451 total enplanements in 2015.

JAX is located in the Northeast Continuing Florida Aviation System Planning Process (CFASPP) region as well as FDOT District 2. Also, included in this region and district is Gainesville Regional Airport. This airport profile will illustrate statistical data about JAX including: annual enplanements, air carrier market share, as well as many other metrics using baseline conditions reported from 2014 and 2015 data. The following statistical information will provide a description of the most recent overall performance of JAX and how that compares to previous years' performance.

More information about JAX can be found at: www.flyjax.com/Home.aspx

#### **Annual Enplanements**

**Figure 1** represents total annual enplanements at JAX between 2000 and 2015. This data shows a gradual decline in passengers between 2007 and 2013 and a subsequent increase in annual enplanements between 2013 and 2015. JAX had 2,748,451 enplanements in 2015 compared to 2,564,581 in 2013. This 7.17 percent growth in annual enplanements suggests increasing demand for operations at JAX.

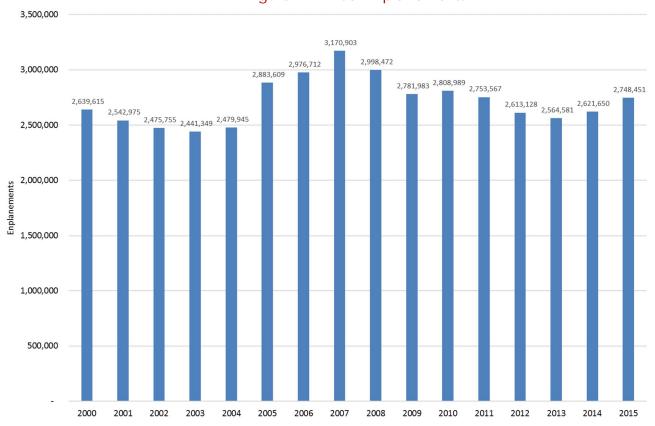


Figure 1. Annual Enplanements<sup>1</sup>

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<sup>&</sup>lt;sup>1</sup> Annual airport passenger traffic reports, provided by FDOT

#### Passengers and Fares

JAX saw an increase in annual passengers between 2013 and 2015. In 2015 JAX had 2,714,872 annual passengers, this is roughly a 120,000 passenger increase from the passenger count in 2014. The average fare at JAX decreased in 2015 to \$191.86. This is nearly a \$10 decrease from 2014, although still above the low point of \$117.67 in 2002. **Figure 2** displays the annual passengers and annual average fare at JAX.

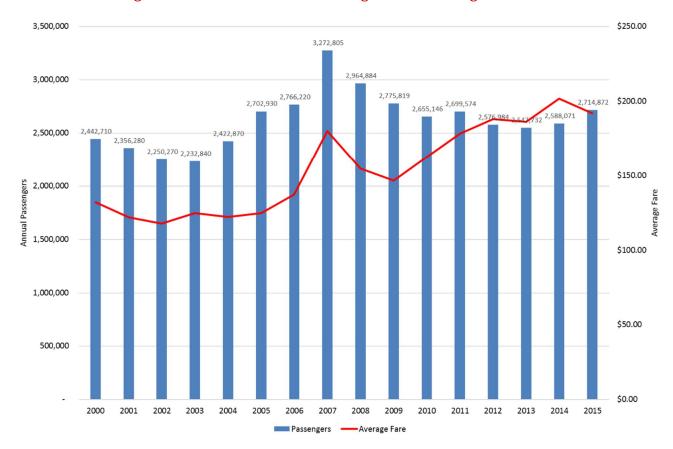


Figure 2. Annual Domestic Passengers and Average Fares<sup>2</sup>

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<sup>&</sup>lt;sup>2</sup> U.S. Department of Transportation (U.S. DOT) Bureau of Transportation Statistics (BTS) O&D Survey & T-100 Domestic Market All Carriers

#### **Destination Airports**

JAX served 27 destinations throughout the U.S. in 2015. Four of these destinations were located within the state of Florida. These four locations included:

- Miami International Airport (MIA) 2,128 flights (41 per week)
- Fort Lauderdale-Hollywood International Airport (FLL) 1,613 flights (31 per week)
- Tampa International Airport (TPA) 797 flights (15 per week)
- Pensacola International Airport (PNS) 94 flights (2 per week)

Of flights departing from JAX, the destination receiving the most flights was Hartsfield-Jackson Atlanta International Airport (ATL). ATL is known as being one of the busiest airports in the world as well as being the primary hub for Delta Air Lines. Regardless of the high number of flights bound for ATL (5,588 in 2015, over 100 a week), JAX still served destinations all over the United States. **Figure 3** displays JAX's nonstop domestic destinations.

#### **Domestic Routes**

**Figure 4** displays JAX's top ten domestic routes. For purposes of this study, a route is the complete path taken by passengers from the starting airport (in this case JAX) to their final destination. The routes from JAX shown below had the most frequent passengers traveling on them in 2015. All ten of the routes were direct flights. One of the direct flight routes was to another airport in the state of Florida. The final destinations include:

- Ronald Reagan Washington National Airport (DCA)
- John F. Kennedy International Airport (JFK)
- Fort Lauderdale-Hollywood International Airport (FLL)
- Chicago O'Hare International Airport (ORD)
- LaGuardia Airport (LGA)
- Hartsfield-Jackson Atlanta International Airport (ATL)
- Newark Liberty International Airport (EWR)
- Boston Logan International Airport (BOS)
- Dallas/Fort Worth International Airport (DFW)
- Washington Dulles International Airport (IAD)

This analysis represents the intention of travel of the majority of passengers flying out of JAX. It should be noted that the majority of these airports are in the Northeast region of the U.S. Therefore, the appropriate conclusion is that the majority of passengers who travel from JAX are ultimately bound for the Northeast region of the U.S. Data for the routing analysis were obtained from Airline Reporting Corporation (ARC).





Figure 3. JAX's Nonstop Domestic Destinations<sup>3</sup>



<sup>&</sup>lt;sup>3</sup> The Official Airline Guide (OAG)

Figure 4. Top Domestic Routes<sup>4</sup>



<sup>&</sup>lt;sup>4</sup> Airline Reporting Corporation (ARC)



#### **Domestic Regional Analysis**

**Figure 5** displays the average fare, number of passengers, and percentage of total passengers departing JAX and bound for each of the eight regions of the United States. The data shows that 52.9 percent of passengers departing JAX were bound for destinations in the Southeast region. The Southeast region contains Hartsfield-Jackson Atlanta International Airport (ATL) which received a large portion of JAX's flights in 2015. It should be noted that **Figure 5** incorporates Florida airports into the southeast region, therefore adding JAX's intrastate service to the southeast percentage. The northeast region received the second most passengers from JAX in 2015 at 23.2 percent. This region contains several large hub airports including John F. Kennedy International Airport (JFK).



Figure 5. Domestic Passengers and Fares<sup>5</sup>

#### International Flight Departures

In 2015, JAX served two international destinations. These flights both served Marsh Harbour Airport in Marsh Harbour, Bahamas.

#### Aircraft Type

Of the 27 destinations served by JAX, 25 were served by large jet aircraft. The use of large jet aircraft has a direct impact on the average seats per flight at an airport. Generally larger jet aircraft substantially increase the average seats per flights. **Figure 6** displays the aircraft types that served the 27 destinations from JAX as well as the average seats per flight on each aircraft type.



Figure 6. Aircraft Types and Average Seats per Flight<sup>6</sup>

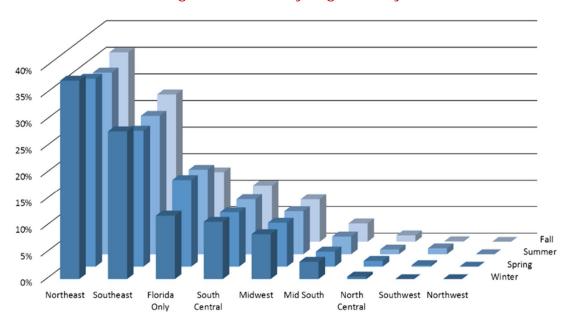


<sup>&</sup>lt;sup>5</sup> The Official Airline Guide (OAG)

<sup>&</sup>lt;sup>6</sup> The Official Airline Guide (OAG)

#### Seasonal Flight Comparison

The data shown in **Figure 7** further supports the identification of major routes to the Southeast region and airports in Florida. However, when Florida airports are separated from the Southeast region, there are more flights every season to the Northeast region of the U.S. This suggests that throughout the year, the Northeast receives more passengers in total than the southeast region when Florida is excluded. This can be seen in the large number of weekly flights to airports such as JFK and EWR. Further, this highlights the contribution that JAX's intrastate service, primarily to Miami International Airport (MIA) and Fort Lauderdale-Hollywood International Airport (FLL), makes each season to the Southeast region's share of JAX air service. **Figure 7** also shows that intrastate flights from JAX increase in the spring and summer seasons, while flights to airports in the Southeast region (excluding Florida) decrease in those seasons.



■ Winter ■ Spring ■ Summer ■ Fall

Figure 7. Season by Region Analysis<sup>7</sup>

#### **Average Load Factors**

Average load factors represent the number of passenger miles traveled as a proportion of available seat miles. Higher average load factors represent more total passenger boardings. The average load factor at JAX was 83.17, slightly higher than the U.S. average, 82.68, for 2015. A summary of 2014 and 2015 average load factors is shown in **Table 1**.

Table 1. Average Load Factor Analysis<sup>8</sup>

82.23				
83.17				
All U.S. Airports				
82.69				
82.68				
8				



<sup>&</sup>lt;sup>7</sup> The Official Airline Guide (OAG)

<sup>&</sup>lt;sup>8</sup> The Bureau of Transportation Statistics (BTS) T-100 Table Data

#### **On-Flight Market Freight Statistics**

Freight statistics represent the total number of pounds of freight, property other than mail and passenger baggage, transported by air **from** a given airport. In 2015, JAX shipped over 76 million pounds of freight, a roughly 700,000-pound increase from 2014. A summary of 2014 and 2015 on-flight market freight statistics is shown in **Table 2**.

Table 2. JAX Freight9

Year	Freight (in pounds)	
2014	75,594,096	
2015	76,237,093	

#### On-Flight Market Mail Statistics

Mail statistics represent the total number of pounds of U.S. and foreign mail shipped **from** a given airport. JAX had a decrease in pounds of mail shipped between 2014 and 2015 with roughly 1.5 million pounds less being shipped in 2015. A summary of 2014 and 2015 on-flight market mail statistics is shown in **Table 3**.

Table 3. JAX Mail<sup>10</sup>

Year	Mail (in pounds)	
2014	4,879,246	
2015	3,356,210	



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<sup>&</sup>lt;sup>9</sup> The Bureau of Transportation Statistics (BTS) T-100 Segment Data

<sup>&</sup>lt;sup>10</sup> The Bureau of Transportation Statistics (BTS) T-100 Table Data

#### Market Leakage Study

#### Introduction

Florida has the highest number of large hub airports (4) of any state in the U.S. Florida also has many commercial service airports (20), which compete over the same potential passengers. There are many factors that play into the decision-making of passengers, ranging from cost-to-airport proximity to how direct a flight is. Because of these factors, many smaller commercial airports in Florida experience market leakage, or a loss of passengers who choose to drive further distances to airports for various reasons, such as less expensive flights or more convenient flight options. For large airports located in large metropolitan areas leakage may be a less significant factor because they still carry large numbers of passengers. Conversely for smaller airports the loss of passengers to larger airports may potentially be more significant. This analysis looks at tickets purchased in Florida zip codes to see which Florida airports may lose business due to market leakage. The market leakage study analyzes zip codes from where a ticket was purchased and subsequently which airport was departed from for that purchase. To better understand the market leakage findings, key demographic data are presented as part of the market leakage study.

#### Metropolitan Statistical Area (MSA)

According to the U.S. Census, an MSA is "a geographic entity based on the concept of a core area with a large population nucleus, plus adjacent communities having a higher degree of economic and social integration with that core." Per this definition, looking at populations, employment, and other important factors at the level of an MSA, should prove beneficial in better understanding the area. JAX is located in the Jacksonville MSA. The only other airport in the MSA is Northeast Florida Regional Airport (SGJ).

#### **Drive Time and Population Analysis**

Figure 8 displays the area around JAX that can Figure 8. 90 Minute Drive Time Area<sup>12</sup>

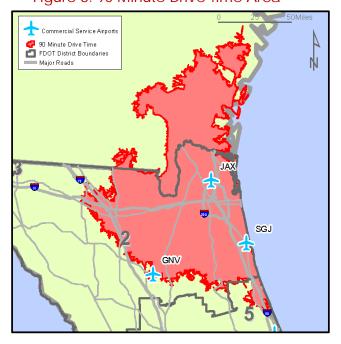


Table 4. Population Within 90 Minutes<sup>11</sup>

Population Trends			
2010 Total Population	1,795,667		
2016 Total Population	1,914,568		
2021 Total Population	2,032,608		
2040 Total Population	2,551,458		
2016-2021 Annual Rate of	1.20%		
Change	1.2070		
2016-2040 Percent	33%		
Change	33/0		

access the airport with a 90-minute or less drive time. Further, **Table 4** displays the population of that area in 2010 and 2016 as well as the projected population in the area for 2021 and 2040. The projected annual rate of change, or growth rate, between 2016 and 2021 of the population in that area is 1.20 percent. With this growth rate, this area is expected to have a 33 percent growth in population by the year 2040. Therefore, by the year 2040, it is anticipated that 2,551,458 people will have a 90 minute or less drive time from their homes to JAX.



<sup>&</sup>lt;sup>11</sup> U.S. Census Bureau, Census 2010 Summary – ESRI Housing Profile

<sup>&</sup>lt;sup>12</sup> U.S. Census Bureau, Census 2010 Summary – ESRI Housing Profile

#### Income Levels

The income distribution in the Jacksonville MSA follows relatively similar trends when compared to other MSA's in the state. However, the Jacksonville MSA has a higher percentage of incomes at \$50,000 and above than the state average. The income in an area may impact the demand for air travel in an area. In an area that has a relatively high number of high income households, more people may be willing to pay more in air fare in order to have a shorter drive to the airport. In lower income areas, people are more likely to drive a greater distance for air travel in order to capture reduced fares. A summary of income data for the MSA are in **Figure 9**. Income data for the MSA and State was derived from the US Census American Fact Finder.

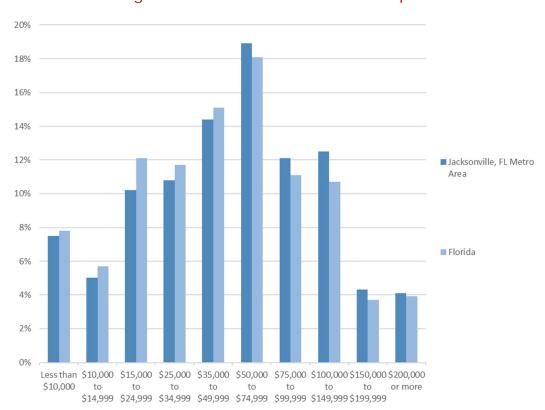


Figure 9. MSA and Florida Income Comparison<sup>13</sup>

#### **Employment**

The primary types of employment located in an area may influence air travel. For areas that have a large number of companies that participate in professional and financial services, demand for local air travel will likely increase because they are less concerned about the cost of flights and more concerned about ease of access to the airport. In most cases, differences will exist between the county and the state averages, but these discrepancies are generally not large enough to impact commercial air service demand. The Jacksonville MSA has a relatively parallel relationship with Florida's employment by industry percentages. A summary of employment by industry can be seen in **Figure 10**. As shown, the Jacksonville MSA has a high employment percentage in the finance industry compared to the rest of the state. This higher percentage could result in increased demand for local air travel and increase JAX's annual passenger count.

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<sup>&</sup>lt;sup>13</sup> U.S. Census American Fact Finder

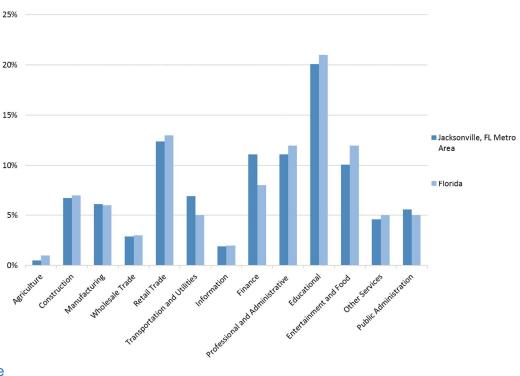


Figure 10. Employment by Industry<sup>14</sup>

#### Leakage

Figure 11 displays the zip codes in Florida where tickets for flights departing from JAX were purchased. This graphic shows the purchases of tickers primarily in the area surrounding JAX. However, tickets have been purchased for JAX flights from all over the state of Florida. Some areas with noticeable aggregations of ticket purchases include Gainesville, Tallahassee, and Daytona. The majority of tickets purchased for JAX flights were purchased from in-state locations. In fact, only 36 percent of ticket purchases were from out of state locations. The other states where ticket purchases were made included but aren't limited to:

- Georgia 8%
- New York 3%
- California 2%

Additionally, the market leakage analysis shows that Jacksonville International Airport does not lose a substantial number of passengers to any

Figure 11. In-state Ticket Purchases<sup>15</sup>

FDOT

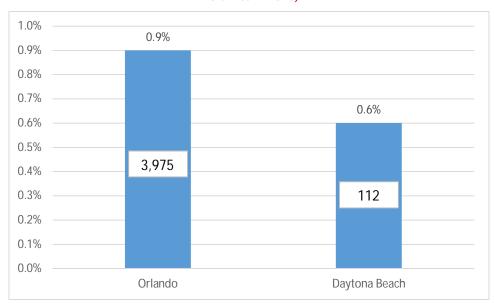
<sup>&</sup>lt;sup>14</sup> U.S. Census American Fact Finder

<sup>&</sup>lt;sup>15</sup> Airline Reporting Corporation (ARC)

other commercial service airport. The highest percentages of passengers from Duval County that depart from a commercial airport other than Jacksonville International depart from Orlando International Airport. In total, 0.9 percent (3,975) of passengers departing Orlando International Airport come from Duval County. **Figure 12** illustrates two airports that receive leaked passengers from the Jacksonville International Airport market area. The values that are presented represent the number and percent of passengers who purchased their ticket from a Duval County zip code but flew out of an alternative airport.

The market leakage analysis also identified that Jacksonville International Airport is the recipient of passengers from the primary markets of other commercial service airports. Of flights that depart Jacksonville International Airport, 2.3 percent (3,580) of passengers come from Alachua County (the primary market for Gainesville Regional Airport) and 1.7 percent (2,553) of passengers come from Leon County (the primary market for Tallahassee International Airport). Data shown was taken from a 10 percent sample of all months in 2015.

Figure 12. In-state Ticket Purchases<sup>16</sup> (Represented as a Percentage of the Departing Airports Total Enplanement Volumes in 2015)



FDOT

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<sup>&</sup>lt;sup>16</sup> Airline Reporting Corporation (ARC)