

Airport Profile

Fort Lauderdale – Hollywood International Airport

Fort Lauderdale-Hollywood International (FLL) is located in Broward County, Florida about three miles southwest of downtown Fort Lauderdale. While FLL is home to several airlines, it is the largest hub for Spirit Airlines.

Fort Lauderdale is known worldwide for its numerous cruise ship ports. FLL is located in a prime spot for easy access to the ports making it a gateway for tourists traveling to their cruises. Further, FLL has easy access to Florida's world famous beaches, amusement parks, and other areas of interest.

FLL's trend of increasing passengers and enplanements continued in 2015, reaching a record high in annual enplanements at over 10 million. This large increase could be partially attributed to FLL's addition of two domestic destinations in 2015.

2015

BY THE NUMBERS

13,458,873
Enplanements

10,486,857
Passengers

\$162.73
Average Fare

65
U.S. Cities Served

4
Intrastate
Destinations

476
Weekly International
Departures



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, Central Aviation Office.

Fort Lauderdale-Hollywood International Airport Air Service Summary

Introduction

Originally opened as Merle Fogg Airport in early 1929, Ft. Lauderdale-Hollywood International Airport (FLL) has seen dramatic changes since its opening. The airport has three runways of 5,276 feet, 6,930 feet, and 9,000 feet which together served 13,458,873 total enplanements in 2015. The airport has experienced steadily increasing growth in the past decade. FLL's location within the state's largest metropolitan areas provides for an ample market. With numerous destination offerings, both domestic and international, the future of FLL may bring continued growth.

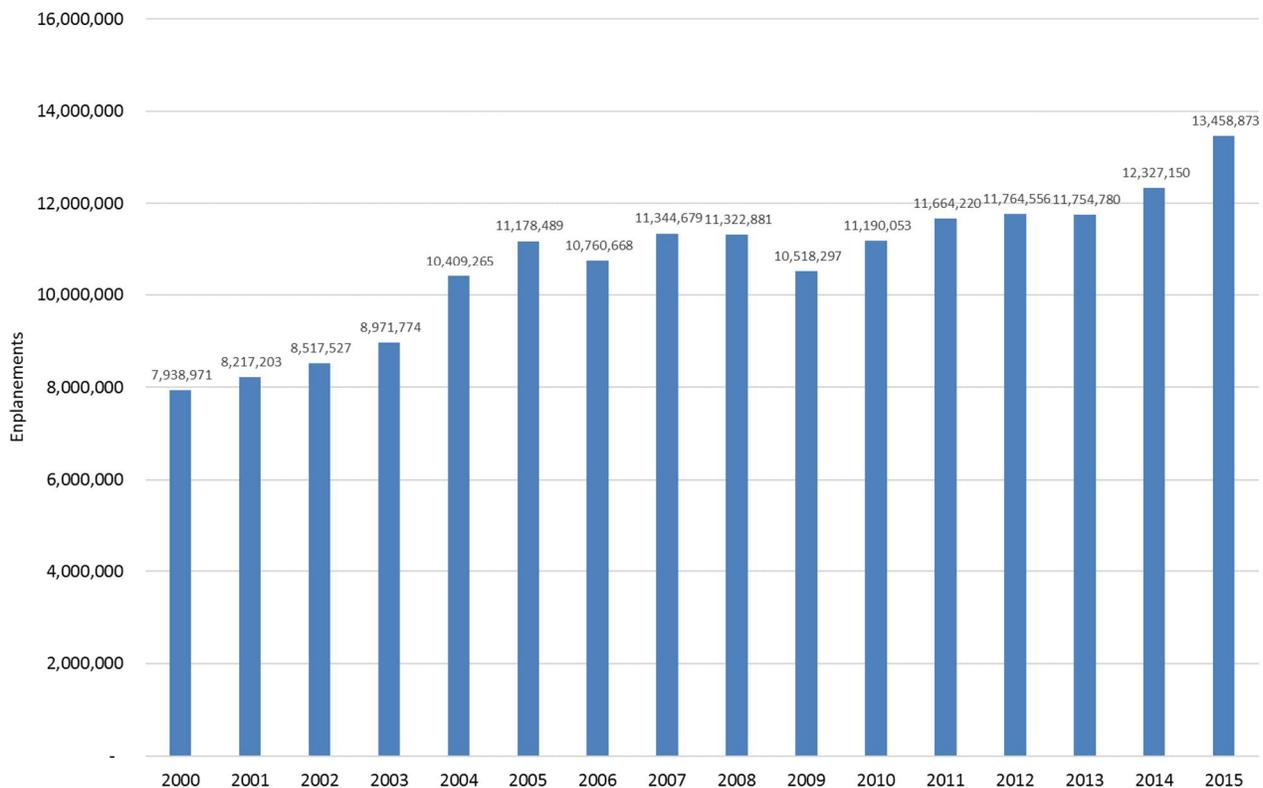
FLL is located in the Southeast Continuing Florida Aviation System Planning Process (CFASPP) region as well as FDOT District Four. Also included in this CFASPP region are Miami International Airport (MIA), Key West International Airport (EYW), and Palm Beach International Airport (PBI). This airport profile will illustrate statistical data about FLL including: annual enplanements, local population data, and many other metrics. The following statistical information will provide a description of the most recent overall performance of FLL and how that compares to previous years' performance.

More information about FLL can be found at: <http://www.broward.org/airport/Pages/Default.aspx>

Enplanements

Figure 1 below is a chart representing total annual enplanements between 2000 and 2015. This analysis shows that FLL had its highest number of annual enplanements in its history in 2015 at 13,458,873. Despite some setbacks such as the 2009 recession, one can see that enplanements at FLL have been steadily increasing over the last 15 years.

Figure 1. Annual Enplanements¹



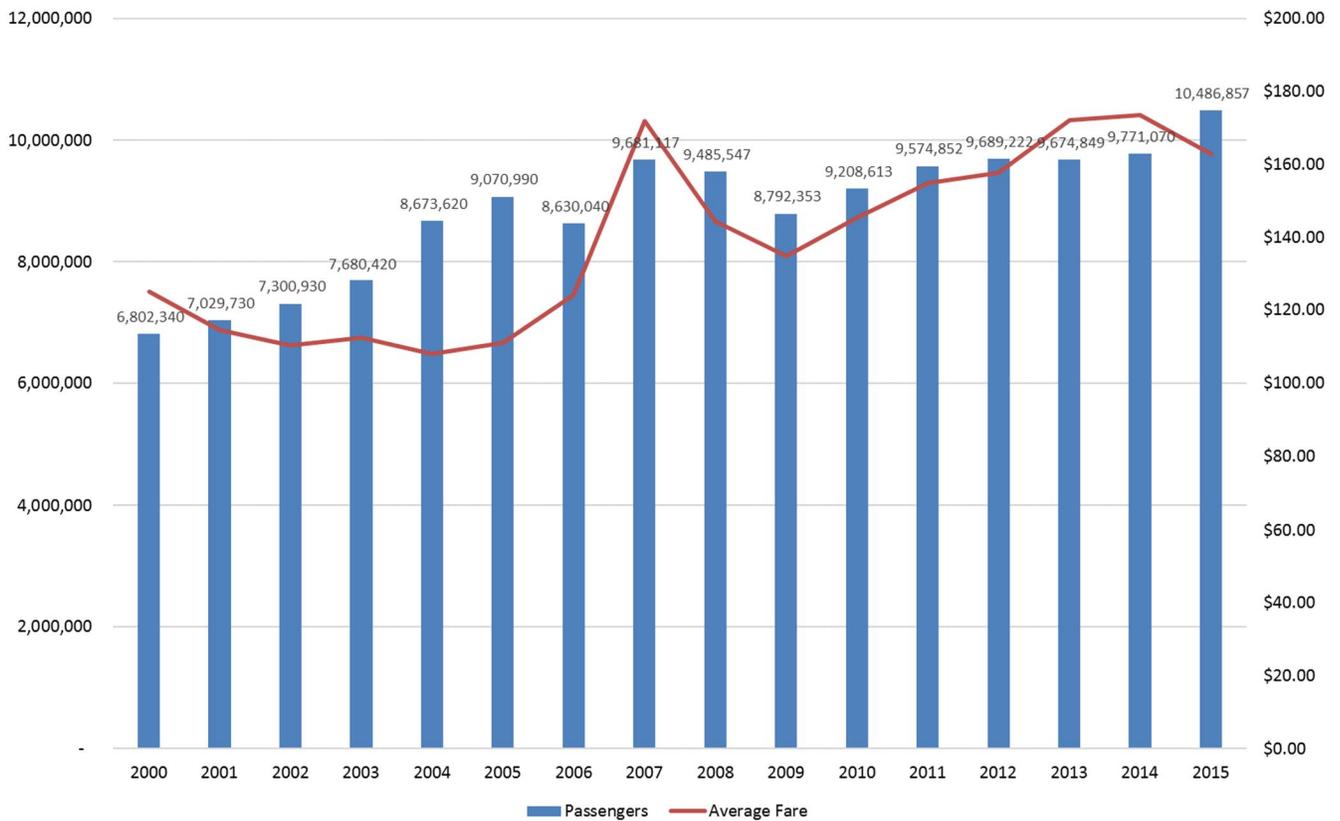
¹ Annual airport passenger traffic reports, provided by FDOT

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Passengers and Fares

Fort Lauderdale-Hollywood International Airport saw its highest passenger count in 2015 at 10,486,857 passengers. The 2015 count came in at roughly 700,000 more passengers than 2014. Despite the increase in annual passengers, the average annual fare decreased to \$162.73 in 2015, a \$10 difference from 2014. The higher passenger volume and decreased fare could, among other things, be attributed to the trend of increasing load factor on commercial airline flights. **Figure 2** displays the annual passengers and annual average fare at FLL.

Figure 2. Annual Domestic Passengers and Average Fares²



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

Destination Airports

FLL served 65 destinations in the U.S. in 2015. Six of these destinations were located within the state of Florida. These locations included:

- Tampa International Airport (TPA) – 70 average flights per week
- Jacksonville International Airport (JAX) – 38 average flights per week
- Orlando International Airport (MCO) – 38 average flights per week
- Key West International Airport (EYW) – 26 average flights per week
- Tallahassee International Airport (TLH) – 4 average flights per week
- Miami International Airport (MIA) – 1 average flight per week

Of flights departing from FLL, the destination receiving the most weekly 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 (158 per week), FLL still served destinations all over the U.S. Some destinations of note that received a large amount of weekly service from FLL included:

- LaGuardia International Airport (LGA) – 111 average flights per week
- Baltimore-Washington International Airport (BWI) – 83 average flights per week
- John F. Kennedy International Airport (JFK) – 83 average flights per week
- Newark Liberty International Airport (EWR) – 61 average flights per week

These destinations represent large amounts of FLL flights that service major large hub airports across the U.S. in addition to their medium and small hub counterparts. These frequent direct flight offerings make FLL an ideal airport for passengers traveling to a variety of major airports around the country. **Figure 3** displays the domestic destinations served by FLL.

Domestic Routes

Figure 4 displays FLL'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 FLL) to their final destination. The routes from FLL shown below had the most frequent passengers traveling on them in 2015. All ten of the following routes were direct flights. The final destinations include:

- Ronald Reagan Washington National Airport (DCA)
- Philadelphia International Airport (PHL)
- Chicago O'Hare International Airport (ORD)
- LaGuardia Airport (LGA)
- Hartsfield-Jackson Atlanta International Airport (ATL)
- John F. Kennedy International Airport (JFK)
- Newark Liberty International Airport (EWR)
- San Francisco International Airport (SFO)
- Los Angeles International Airport (LAX)

This analysis represents the intention of the majority of passengers flying out of FLL. It should be noted that these airports are primarily in the northeast region of the U.S. Therefore, the appropriate conclusion is that the majority of passengers who travel from FLL are bound for those regions of the U.S. This conclusion is further supported from data analysis previously displayed in this profile.

Figure 4. Top Domestic Routes⁴

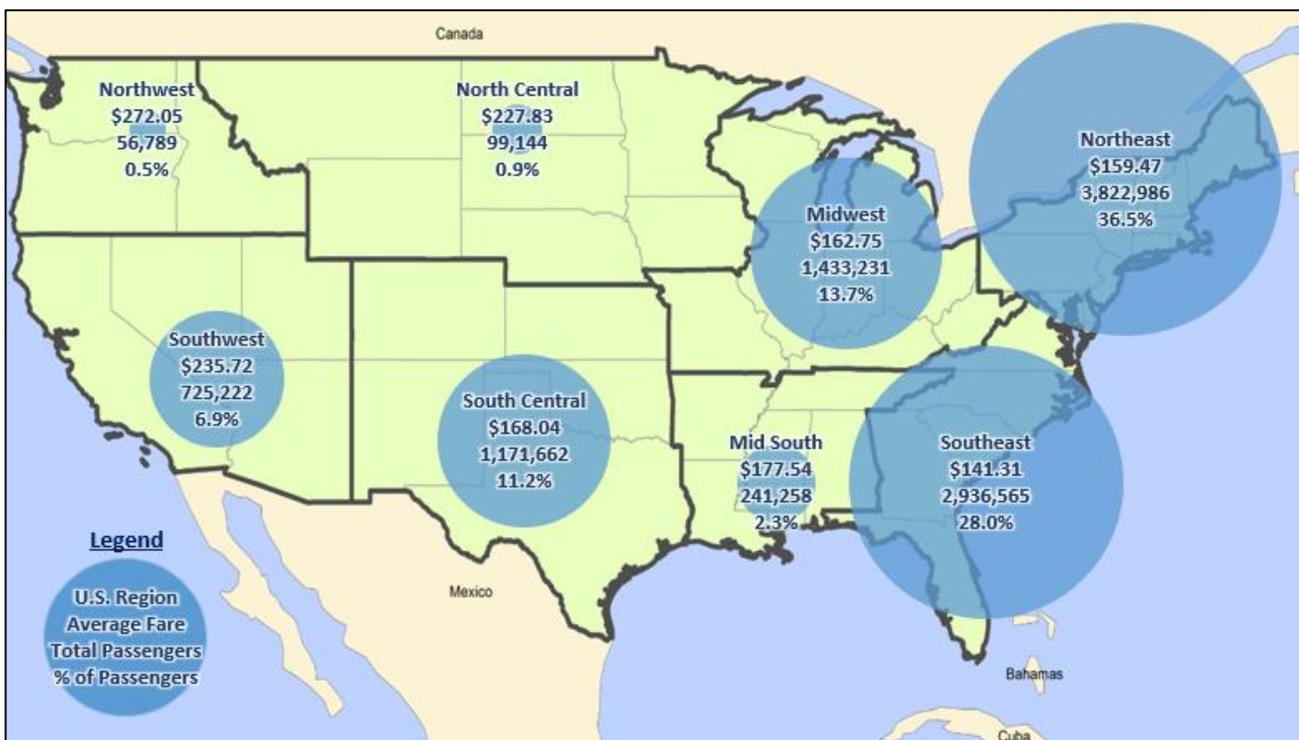


⁴ Airline Reporting Corporation (ARC)

Domestic Regional Analysis

Figure 5 displays the average fare, number of passengers, and percentage of total passengers departing FLL and bound for each of the eight regions of the United States. The data shows that 36.5 percent of passengers were bound for the northeast region. This region contains several large hub airports that were identified above as receiving a large amount of FLL's 2015 flights. The southeast region (including Florida) received the second most passengers from FLL in 2015 at 28 percent. This region contains several large hub airports including John F. Kennedy International Airport (JFK) and LaGuardia International Airport (LGA). This figure further shows the comparatively large percentage of service from FLL to the Midwest (13.7 percent), the South Central (11.2 percent), and the Southwest (6.9 percent) regions of the U.S. These regions contain large hub airports that received a major portion of FLL's service in 2015.

Figure 5. Domestic Passengers and Fares⁵

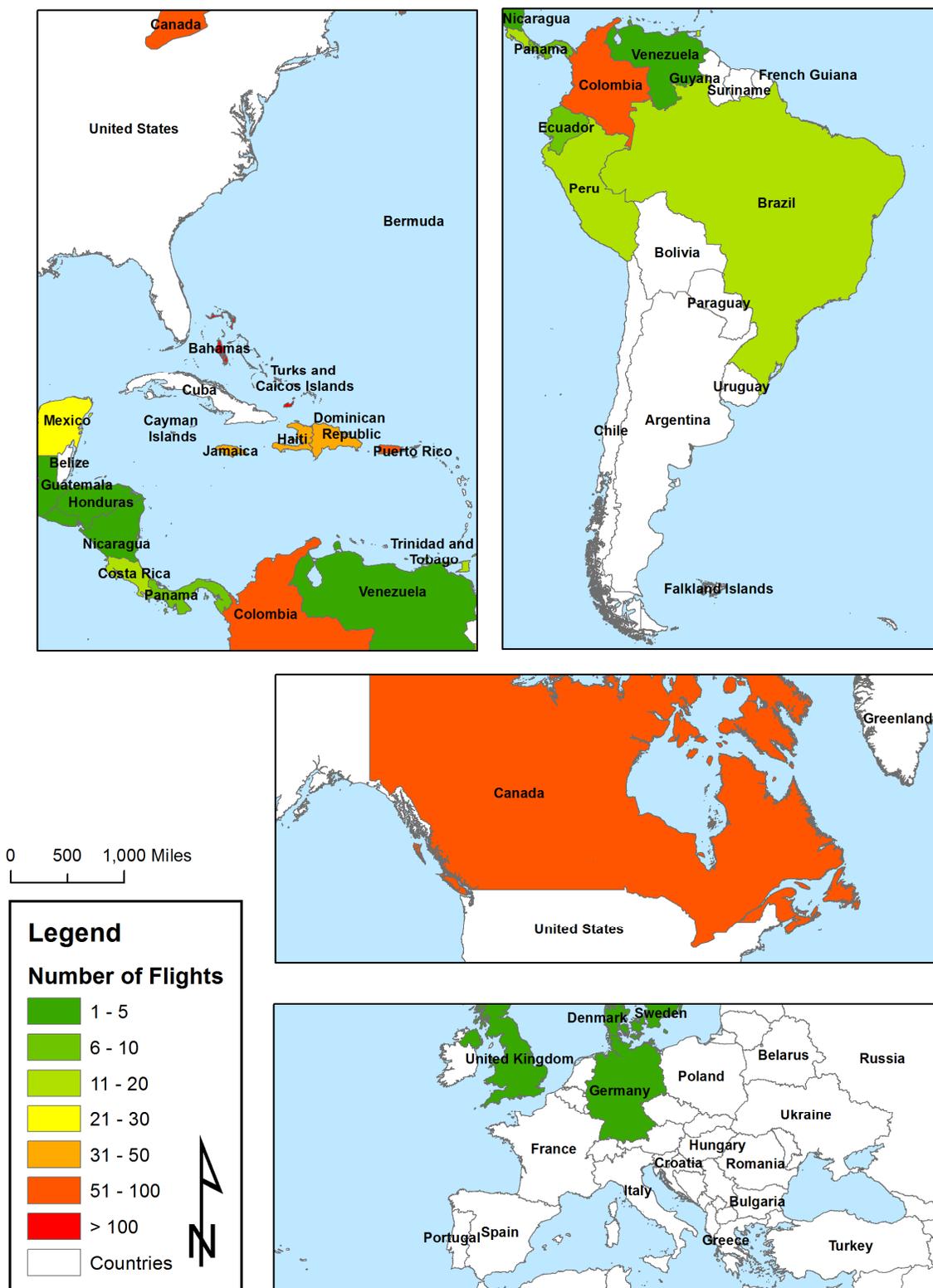


International Flight Departures

FLL had an average 476 weekly departing flights bound for international destinations. 260 of these destinations were in the Caribbean followed by 89 in South America and 61 in Mexico/Central America. **Figure 6** displays the countries FLL served as well as the average weekly frequency of which they were served. The data suggests FLL's focus towards serving Central America as well as South America, although the airport's service extends to Canada and Europe.

⁵ The Official Airline Guide (OAG)

Figure 6. International Destinations by Average Weekly Flights⁶



⁶ The Official Airline Guide (OAG)

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Aircraft Type

Of the 65 destinations served by FLL, 57 were served by large jet aircraft, 11 by regional jet aircraft, and five by turboprop 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 7** displays the aircraft types that served the 65 destinations from FLL as well as the average seats per flight on each aircraft type.

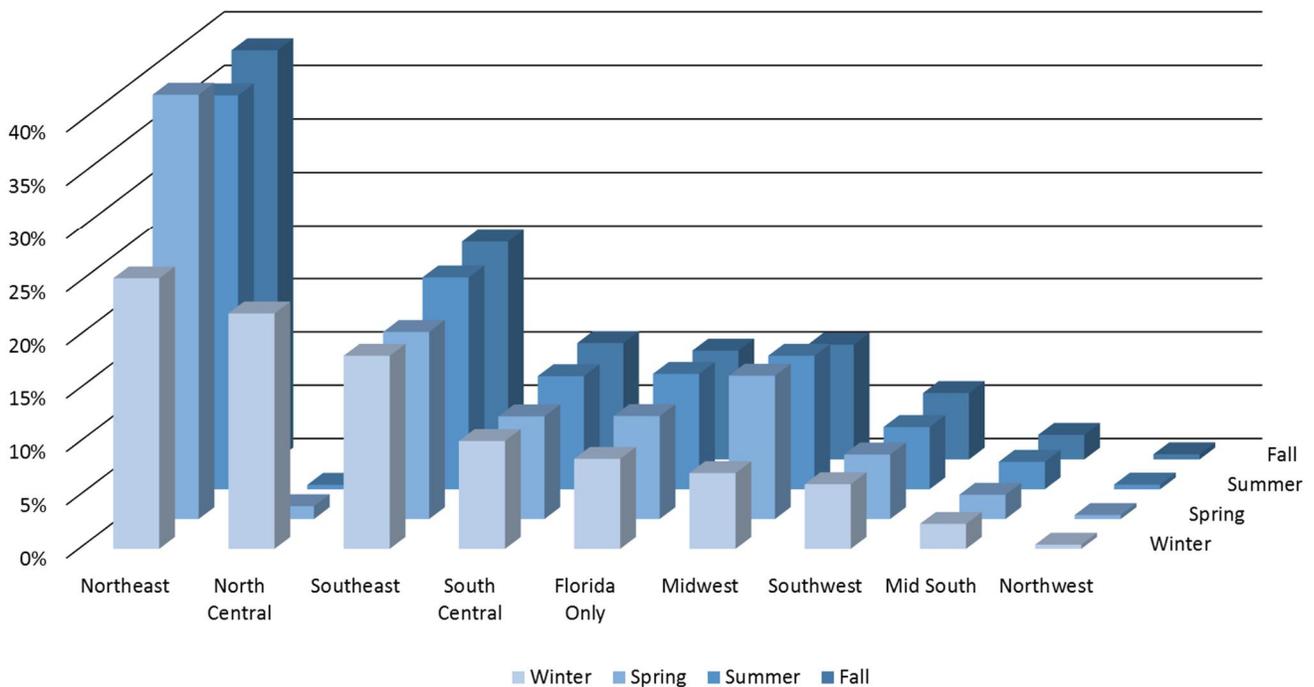
Figure 7. Aircraft Types and Average Seats per Flight⁷



Seasonal Flight Comparison

The data shown below in **Figure 8** further supports the identification of primary service to the northeast region. For all four seasons of the year, the majority of flights, were bound for the northeast region of the U.S. The north central region of the U.S. gets a major increase in flights from FLL in the winter. This data suggests that the 99,144 passengers that travel to the north central region from FLL primarily do so in the Winter. This data also confirms that very few flights departing from FLL are bound for the northwest region of the U.S.

Figure 8. Season by Region Analysis⁸



⁷ The Official Airline Guide (OAG)

⁸ The Official Airline Guide (OAG)

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 Fort Lauderdale-Hollywood International Airport was 82.68, exactly even with the U.S. average, 82.68, for 2015. Load factor statistics were derived from the Bureau of Transportation Statistics (BTS) T-100 segment data for the years 2014 and 2015. A summary of 2014 and 2015 average load factors is shown in **Table 1**.

Table 1. Average Load Factor Analysis⁹

Year	Domestic	International	Total
Fort Lauderdale-Hollywood International			
2014	84.49	81.03	82.69
2015	84.98	80.61	82.68
All U.S. Airports			
2014	84.49	81.03	82.69
2015	84.98	80.61	82.68

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, FLL shipped 95,574,771 pounds of freight, a roughly one million pound increase from 2014. A summary of 2014 and 2015 on-flight market freight statistics is shown in **Table 2**. Freight statistics were derived from the Bureau of Transportation Statistics (BTS) T-100 segment data for the years 2014 and 2015.

Table 2. FLL Freight¹⁰

Year	Freight (in pounds)
2014	94,333,504
2015	95,574,771

On-Flight Market Mail Statistics

Mail statistics represent the total number of pounds of U.S. and foreign mail shipped from a given airport. FLL experienced a large decrease in 2015 throughput mail. A summary of 2014 and 2015 on-flight market mail statistics is shown in **Table 3**. Mail statistics were derived from the Bureau of Transportation Statistics (BTS) T-100 segment data for the years 2014 and 2015.

Table 3. FLL Mail¹¹

Year	Mail (in pounds)
2014	6,353,773
2015	1,792,271

⁹ The Bureau of Transportation Statistics (BTS) T-100 Segment Data

¹⁰ The Bureau of Transportation Statistics (BTS) T-100 Table Data

¹¹ 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. FLL is one of three commercial airports located in the Miami-Ft. Lauderdale-Pompano Beach MSA. This MSA is the largest in Florida.

Drive Time and Population Analysis

Figure 9 displays the area around FLL that can

Figure 9. 90 Minute Drive Time Analysis¹³

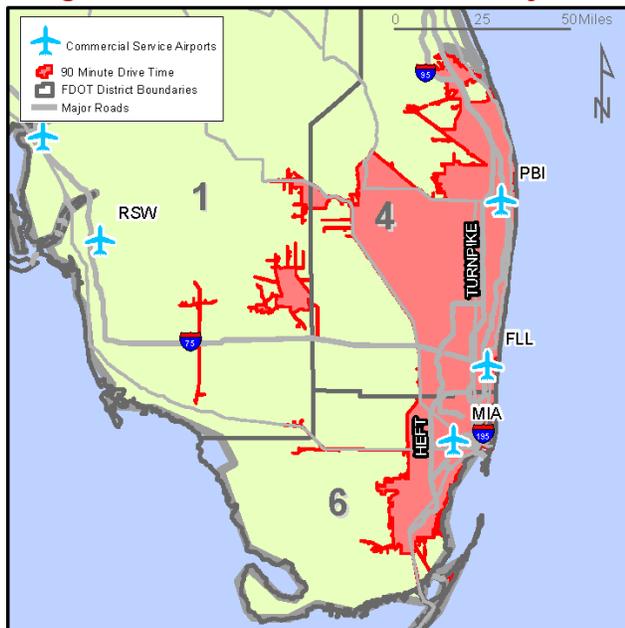


Table 4. Population Within 90 Minutes¹²

Population Trends	
2010 Total Population	5,622,048
2016 Total Population	5,959,788
2021 Total Population	6,320,021
2040 Total Population	7,898,995
2016-2021 Annual Rate of Change	1.18%
2016-2040 Percent Change	33%

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 a projected population of 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 1.18 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 7,898,995 people will have a 90 minute or less drive time from their homes to FLL.

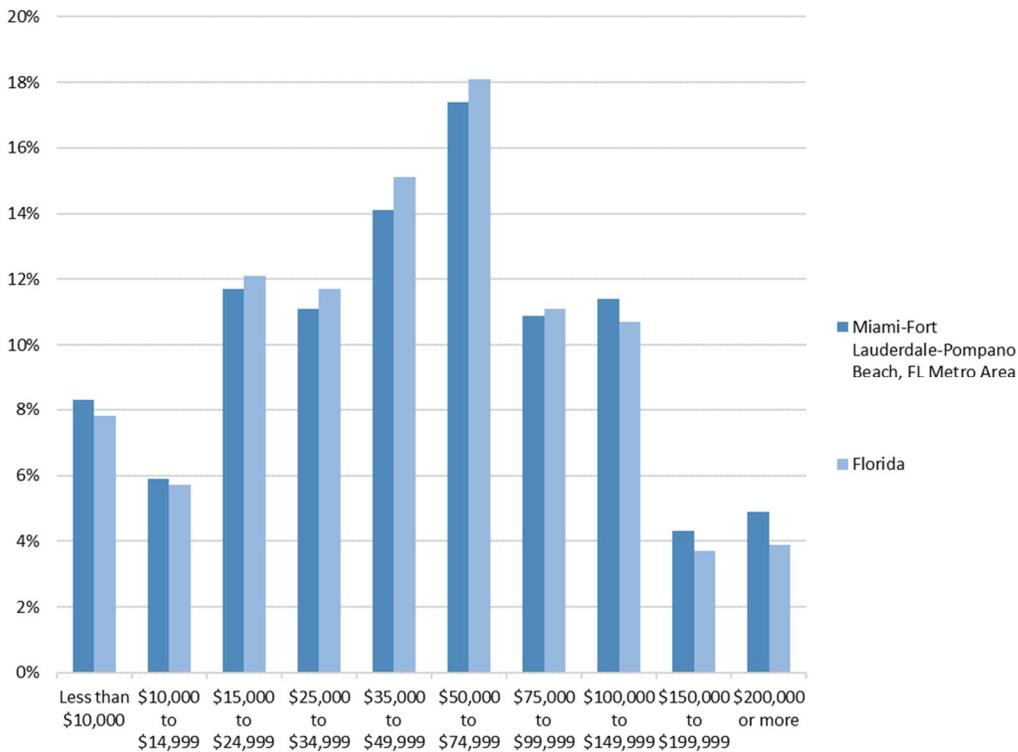
¹² U.S. Census Bureau, Census 2010 Summary – ESRI Housing Profile

¹³ U.S. Census Bureau, Census 2010 Summary – ESRI Housing Profile

Income Levels

The income distribution in the Miami-Fort Lauderdale-Pompano Beach MSA follows normal trends when compared to other MSA's in the state. 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 upper income households, more people may be willing to pay more in order to travel a shorter distance to the airport. In lower income areas, people may be likely to drive a greater distance for air travel in order to capture reduced fares. Many other factors affect airports other than income, and in an area with a dense population that has multiple large hub commercial airports within a relatively close proximity, there may be a multitude of reasons that a household may choose to use a given airport. A summary of income data for the MSA are in **Figure 10** below. Income data for the MSA and State was derived from the US Census American Fact Finder.

Figure 10. MSA and Florida Income Comparison¹⁴

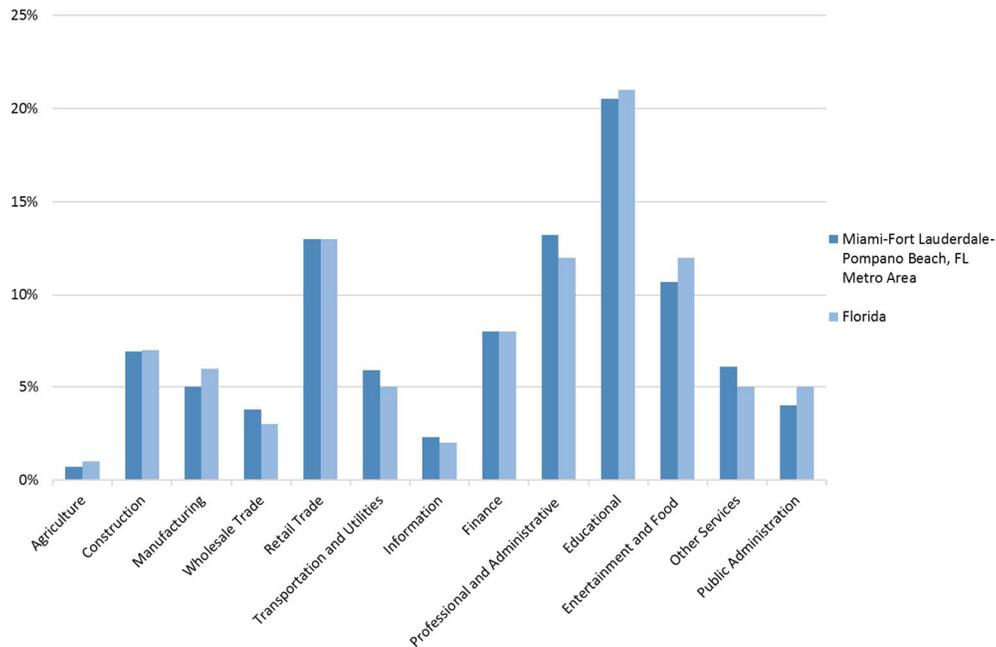


Employment

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 Miami-Ft. Lauderdale-Pompano Beach MSA has a relatively parallel relationship with Florida's employment by industry percentages. A summary of employment by industry can be seen in **Figure 11** below. As shown, the Miami-Ft. Lauderdale-Pompano Beach MSA has a high employment percentage in the professional and administrative industry compared to the rest of the state. This higher percentage could result in increased demand for local air travel and increase FLL's annual passenger count.

¹⁴ U.S. Census American Fact Finder

Figure 11. Employment by Industry¹⁵



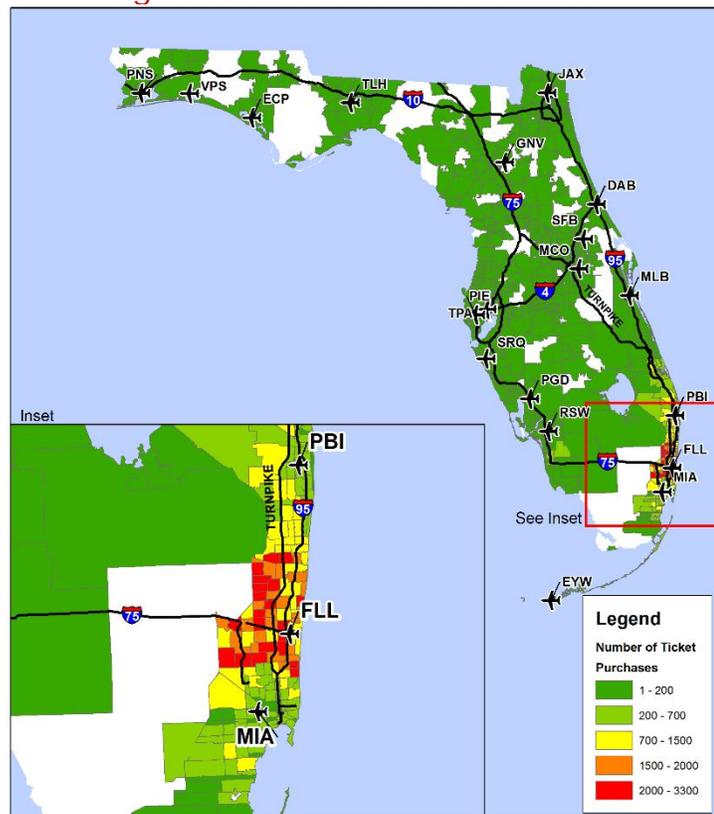
Market Leakage

Figure 12 displays the zip codes in Florida where tickets for flights departing from FLL were purchased. This graphic shows the purchases of tickets primarily in the area surrounding FLL. However, tickets have been purchased for FLL flights from all over the state of Florida. Tickets for flights departing from FLL are purchased from nearly every zip code in the state of Florida. However, 48 percent of tickets purchased for FLL flights were purchased from out of state locations. The remaining 62 percent of ticket purchases were from in-state locations. Other states where tickets were purchased include:

- New York – 6%
- California – 4%
- New Jersey – 3%

Based on the market leakage analysis, Ft. Lauderdale-Hollywood International Airport leaks a large number of

Figure 12. In-state Ticket Purchases¹⁶

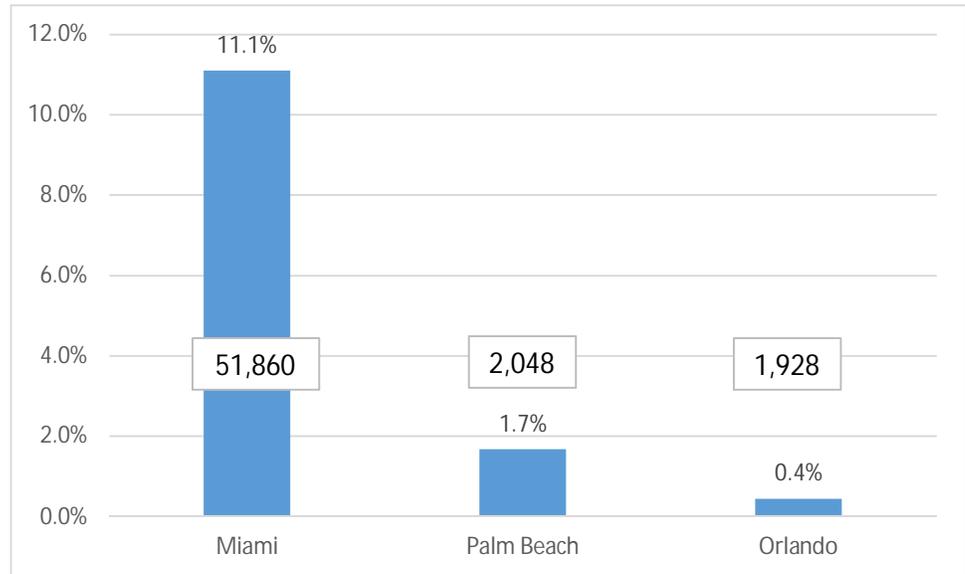


¹⁵ U.S. Census American Fact Finder

¹⁶ Airline Reporting Corporation (ARC)

passengers to nearby markets. It was found that 11.1 percent of passengers departing Miami International Airport and 1.7 percent of passengers departing Palm Beach International Airport were from Broward County. **Figure 13** illustrates the top three airports that receive leaked passengers from the Ft. Lauderdale-Hollywood International Airport market. The large number of flights leaving Broward County for other airports is most likely due to the fact that Ft.

Figure 13. In-state Ticket Purchases¹⁷
 (Represented as a Percentage of the Departing Airports Total Enplanement Volumes in 2015)



Lauderdale, Miami, and Palm Beach are all located within 80 miles of each other. The values that are presented represent the number and percent of passengers who purchased their ticket from a Broward County zip code but flew out of an alternative airport. Data presented are from a 10 percent sample from all months of 2015.

¹⁷ Airline Reporting Corporation (ARC)