# Airport Profile

# Orlando International Airport

Orlando International Airport (MCO) is located in Orange County, Florida about six miles southeast of Orlando, Florida. The airport's three-letter identifier, MCO, stands for the airport's former name, McCoy Air Force Base which was closed in 1975.

Orlando is known globally for its tourist attractions due to its' location near amusement parks, resorts, proximity to beaches, and professional sports teams. This reputation as the world's primary tourist destination results in high air travel demand at MCO.

Although MCO served two less domestic destinations in 2015, the airport continued its increasing trend in both annual enplanements and annual passengers. The airport's location with proximity to major national tourism hotspots makes MCO one of the busiest airports in the world. MCO is continuing to thrive along with the rest of Florida aviation.

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## 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.

## Orlando International Airport Air Service Summary

### Introduction

Orlando International Airport (MCO) is the second largest airport in Florida and one of the largest airports in both the United States and the world. MCO is located in the East Central Continuing Florida Aviation System Planning Process 9CFASPP) region along with Daytona Beach International Airport, Melbourne International Airport, and Orlando-Sanford International Airport. Located in the heart of one of the world's busiest tourist destinations, as well as in one of the state's largest metropolitan areas, Orlando International had over 19 million enplanements in 2015. In addition to the large number of passengers that pass through the airport, MCO also carries a large amount of freight; the second most of all airports in Florida. Currently, MCO has four runways with lengths of 9,001 feet, 10,000 feet, 12,004 feet, and one at 12,005 feet. These facilities, along with frequent flight offerings and low cost carriers make MCO a key airport for Florida.

More information about MCO can be found at: https://www.orlandoairports.net/

### Enplanements

This airport profile will illustrate statistical data about MCO including: annual enplanements, air carrier market share, as well as many other metrics. The following statistical information will provide a description of the most recent overall performance of MCO and how that compares to previous years' performance. **Figure 1** represents total annual enplanements at MCO between 2000 and 2015. This analysis shows the general rise in annual passenger enplanements over the past 15 years. In 2015, MCO had 19,286,291 enplanements, the most ever recorded at the airport. This is an eight percent increase from the 17,779,891 enplanements in 2014 and an eleven percent increase from the 17,355,004 enplanements in 2013.

### Figure 1. Annual Enplanements[1]
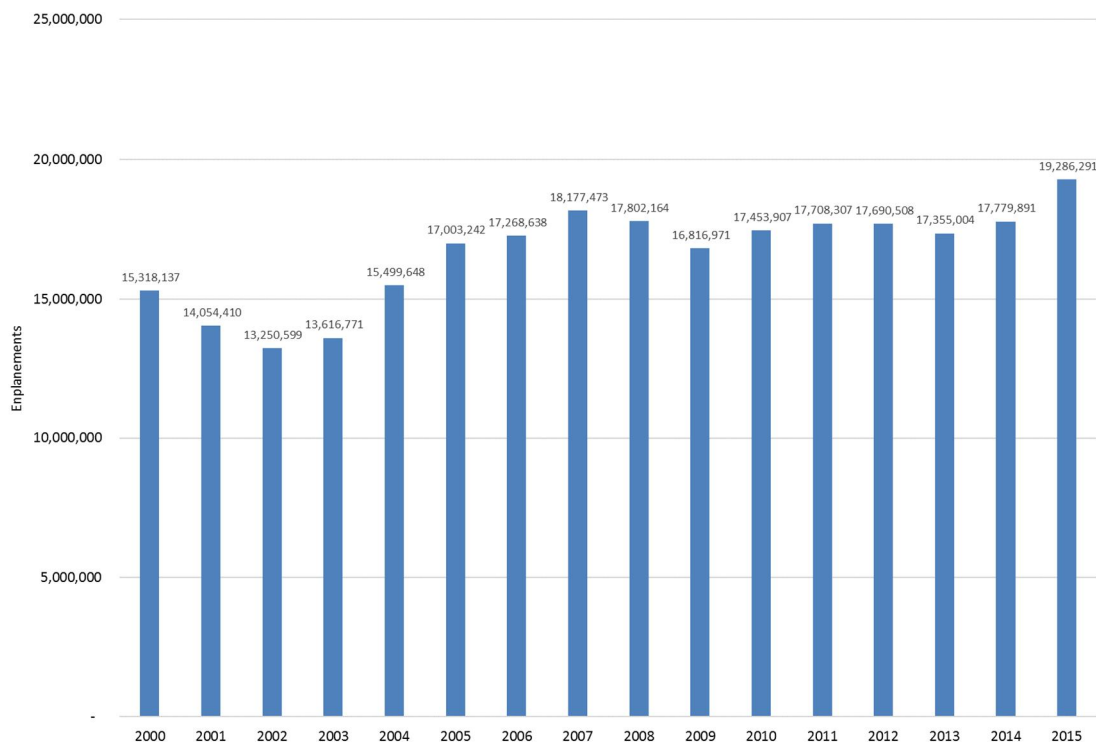


[1] Annual airport passenger traffic reports, provided by FDOT

## Passengers and Fares

Orlando International Airport has seen a rise in annual passengers over the past three years. In fact, 2015 marked 16,283,610 annual passengers. This is roughly a one million passenger increase from the passenger count in 2014. The average fare at MCO decreased in 2015 to $171.78. This is nearly a $10 decrease from 2014 although still well above the low point in 2004 at $110.77. **Figure 2** displays the annual passengers and annual average fare at MCO.

**Figure 2. Annual Domestic Passengers and Average Fares[2]**
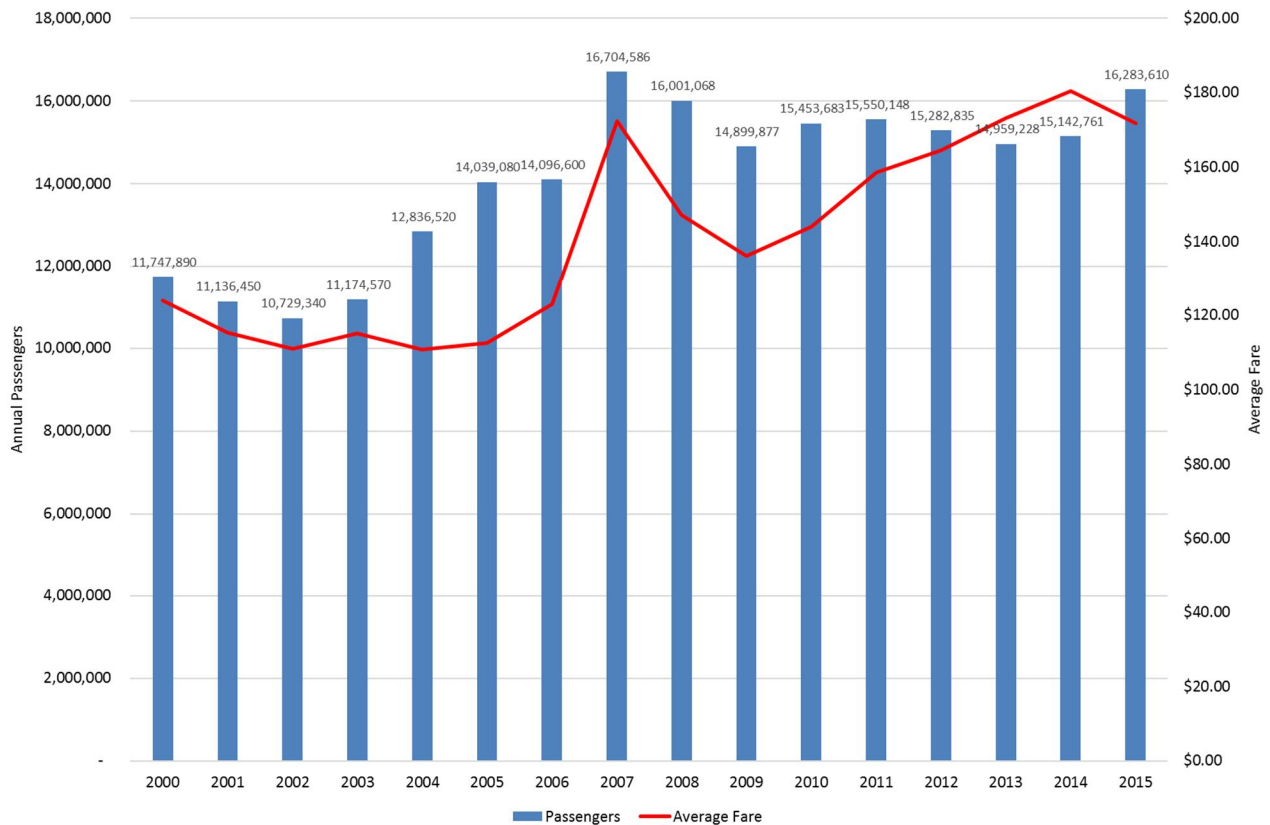


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## Destination Airports

MCO served 76 destinations throughout the U.S. in 2015. Eight of these destinations were located within the state of Florida. These locations included:

- Miami International Airport (MIA) – 84 average flights per week
- Tallahassee international Airport (TLH) – 7 average flights per week
- Southwest Florida international Airport (RSW) – 7 average flights per week
- Pensacola International Airport (PNS) – 7 average flights per week
- Gainesville Regional Airport (GNV) – 7 average flights per week
- Fort Lauderdale-Hollywood International Airport (FLL) – 7 average flights per week
- Key West International Airport (EYW) – 7 average flights per week
- Northwest Florida Beaches International Airport (ECP) – 7 average flights per week

Of flights departing from MCO, the destination receiving the most weekly flights was Los Angeles International Airport (LAX). This is unique for a Florida airport to primarily serve an airport in the Southwest region of the U.S. Regardless of the high number of flights bound for LAX (183 per week), MCO still served destinations all over the U.S. Some destinations of note that received a large amount of weekly service from MCO included:

- Detroit Metropolitan Airport (DTW) – 138 average flights per week
- John F. Kennedy International Airport (JFK) – 111 average flights per week
- George Bush Intercontinental Airport (IAH) – 81 average flights per week
- Cleveland Hopkins International Airport (CLE) – 80 average flights per week

These destinations represent large amounts of MCO 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 MCO an ideal airport for passengers traveling to a variety of major airports around the country. **Figure 3** displays the domestic destinations served by MCO.
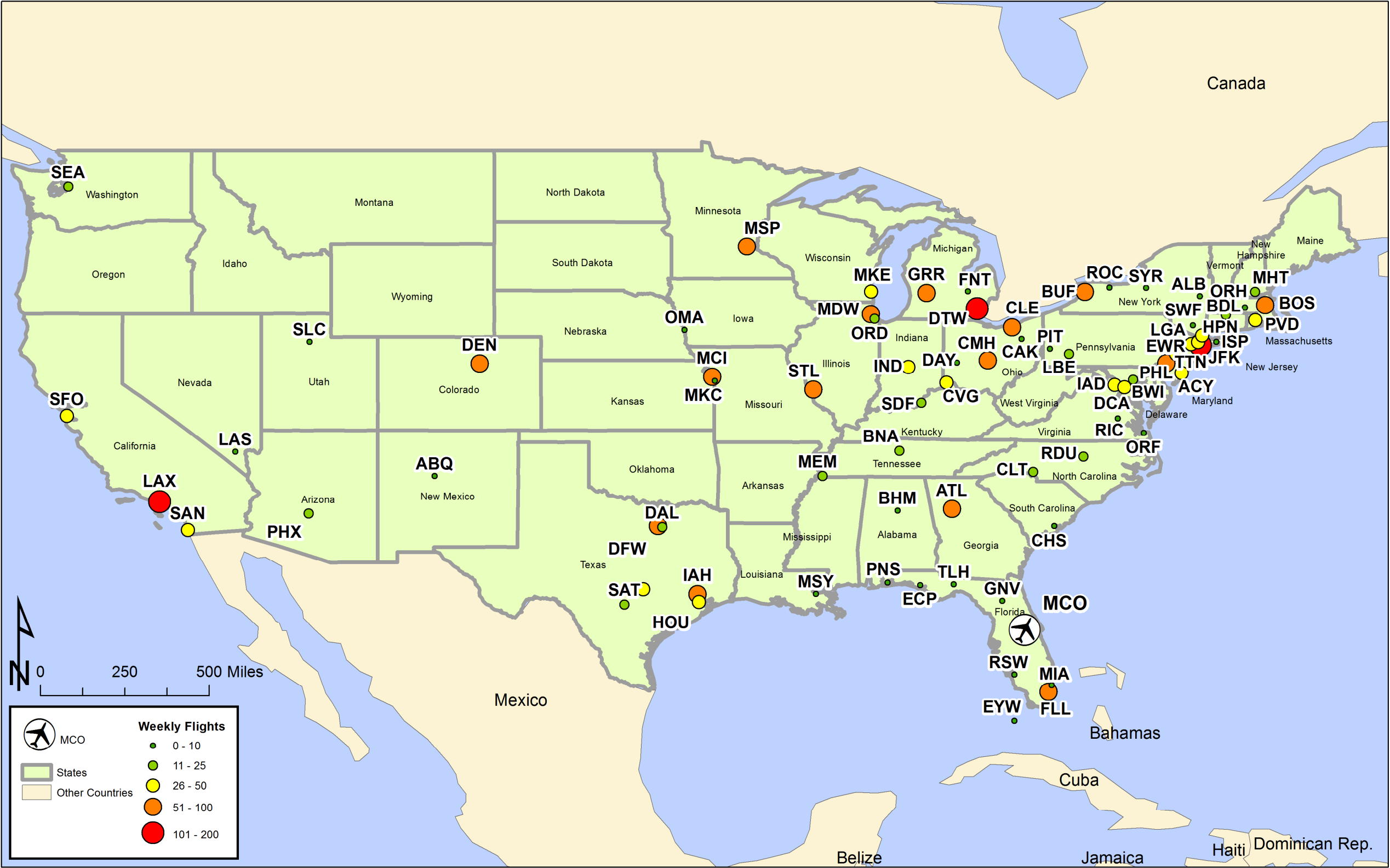
## Domestic Routes

**Figure 4** displays MCO's top nine domestic routes. For purposes of this study, a route is the complete path taken by passengers from the starting airport (in this case MCO) to their final destination. The routes from MCO shown below had the most frequent passengers traveling on them in 2015. All nine of the routes were direct flights. None of the routes were to other airports in the state of Florida. The final destinations include:

- Los Angeles International Airport (LAX)
- Chicago O'Hare International Airport (ORD)
- Ronald Reagan Washington National Airport (DCA)
- John F. Kennedy International Airport (JFK)
- Dallas/Fort Worth International Airport (DFW)
- Philadelphia International Airport (PHL)
- Boston Logan International Airport (BOS)
- Newark Liberty International Airport (EWR)
- LaGuardia Airport (LGA)

This analysis represents the intention of travel of the majority of passengers flying out of MCO. 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 MCO are ultimately bound for the Northeast region of the U.S.

**Figure 3. MCO's Nonstop Domestic Destinations[3]**



| Weekly Flights |
| --- |
| ● 0 - 10 |
| ● 11 - 25 |
| ● 26 - 50 |
| ● 51 - 100 |
| ● 101 - 200 |

✈ MCO

States

Other Countries

[3] The Official Airline Guide (OAG)

**Figure 4. Top Domestic Routes[4]**

[4] The Official Airline Guide (OAG)

## Domestic Regional Analysis

**Figure 5** displays the average fare, number of passengers, and percentage of total passengers departing MCO and bound for each of the eight regions of the United States. The data shows that 32.4 percent of passengers departing MCO were bound for destinations in the northeast region. This percentage is unique compared to the majority of Florida's commercial service airports which typically have their highest percentage traveling to the southeast region. It should be noted that **Figure 5** incorporates Florida airports into the southeast region, therefore adding MCO's intrastate service to the southeast percentage. The southeast region received the second most passengers from MCO in 2015 at 25.0 percent. Overall, this map indicates MCO's rather diverse and extensive range of service. In particular, it is noted that the Midwest, south central, and southwest regions all had a greater percentage of service than the Mid south region, the neighboring region to MCO's southeast.

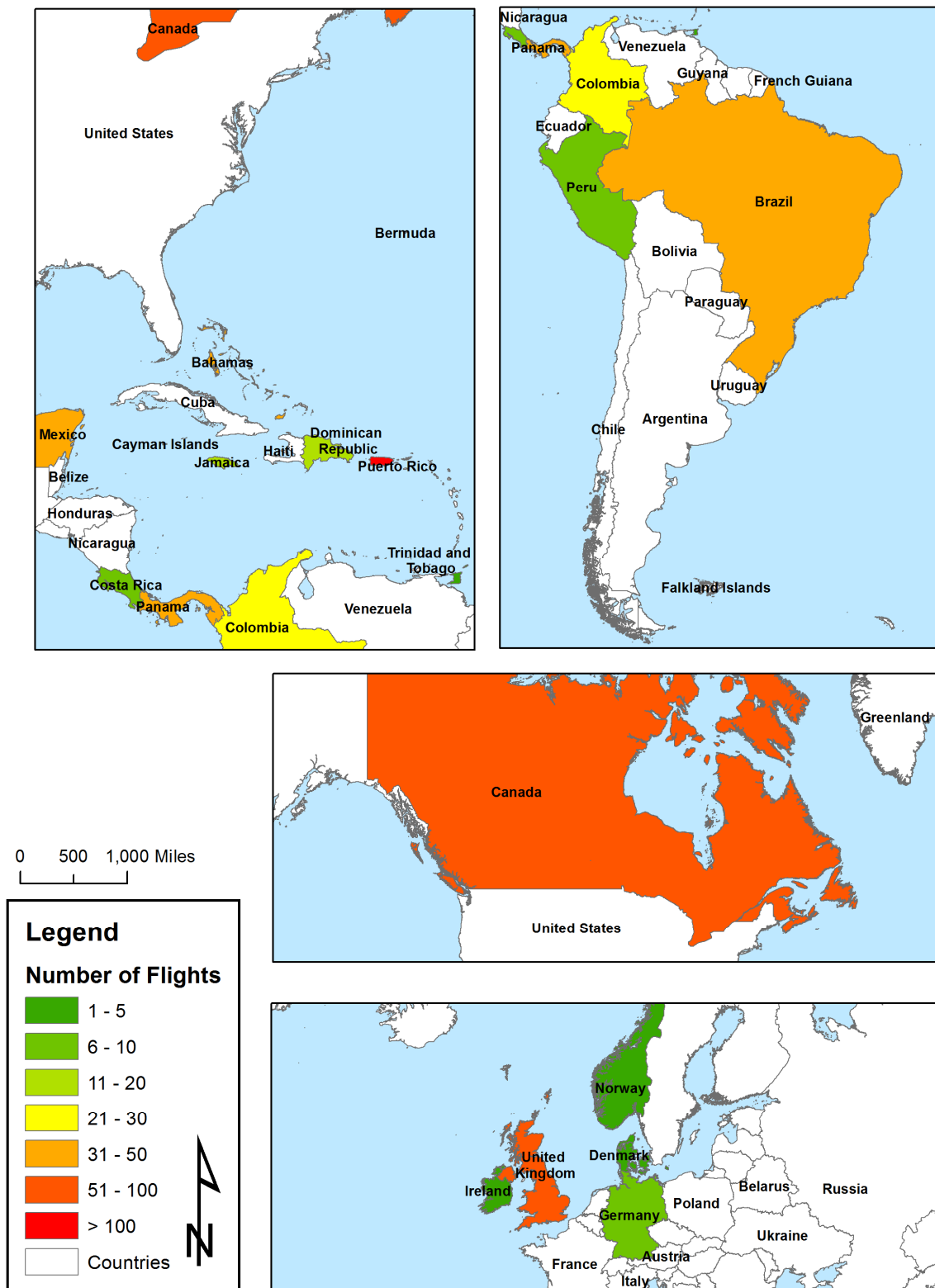**Figure 5. Domestic Passengers and Fares[5]**
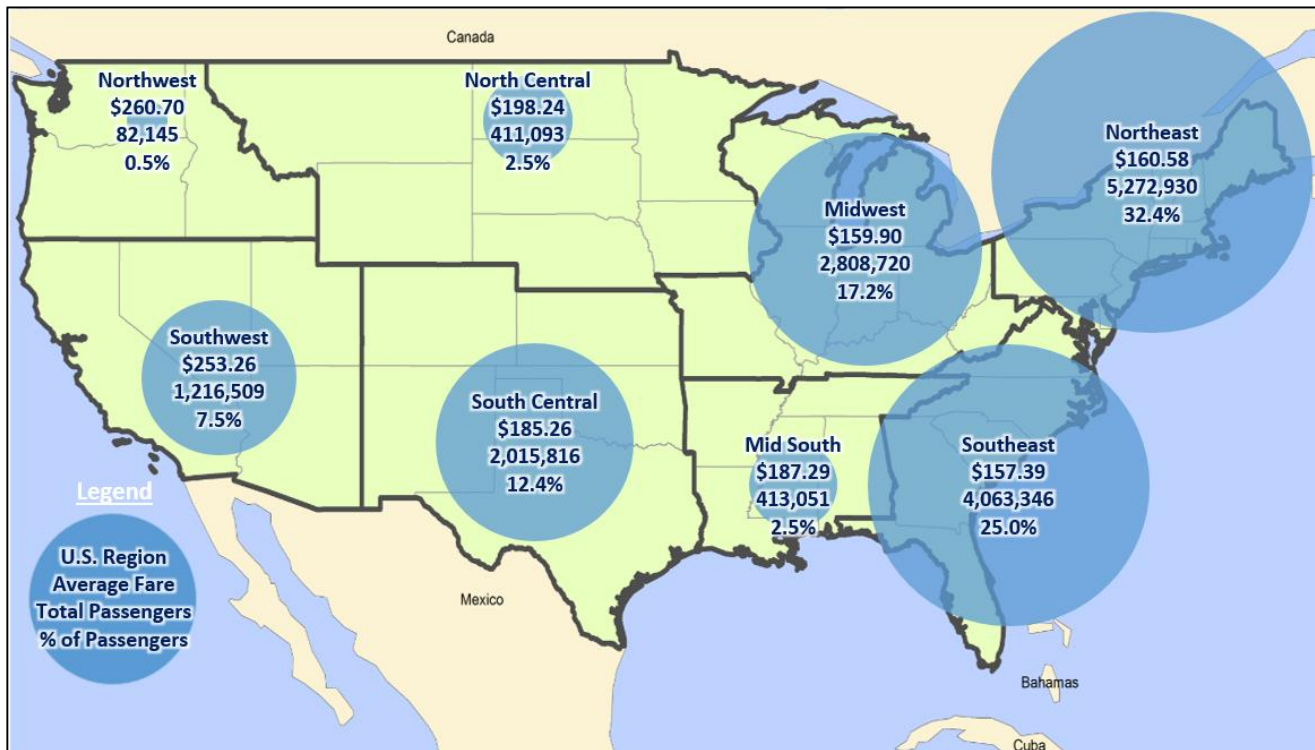


## International Flight Departures

MCO had the third highest average weekly international departures for Florida airports in 2015. Miami International Airport had the most. Specifically, in 2015 MCO had 335 average weekly international departures, with approximately 73 of those serving the Caribbean, 81 serving Mexico/Central America, 67 serving Europe, 59 serving South America, and 55 serving Canada. International flight information was compiled from the Official Airline Guide (OAG) and represents a weekly average with data being compiled from July 2015. **Figure 6** displays all countries served by flights departing from MCO in 2015, with how many average weekly flights served them.

[5] The Official Airline Guide (OAG)

Figure 6. International Destinations by Average Weekly Flights[6]



**Legend**

**Number of Flights**

| | |
|---|---|
| 🟩 | 1 - 5 |
| 🟩 | 6 - 10 |
| 🟩 | 11 - 20 |
| 🟨 | 21 - 30 |
| 🟧 | 31 - 50 |
| 🟧 | 51 - 100 |
| 🟥 | > 100 |
| ⬜ | Countries |

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[6] The Official Airline Guide (OAG)

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## Aircraft Types

Of the 76 destinations served by MCO, 64 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 flight. Due to the relatively high number of large jet aircraft operating at MCO, the average seats per flight at MCO is high in comparison to other airports around Florida and the United States. **Figure 7** displays the aircraft types that served the 76 destinations from MCO as well as the average seats per flight on each aircraft type.

**Figure 7. Aircraft Types and Average Seats per Flight[7]**
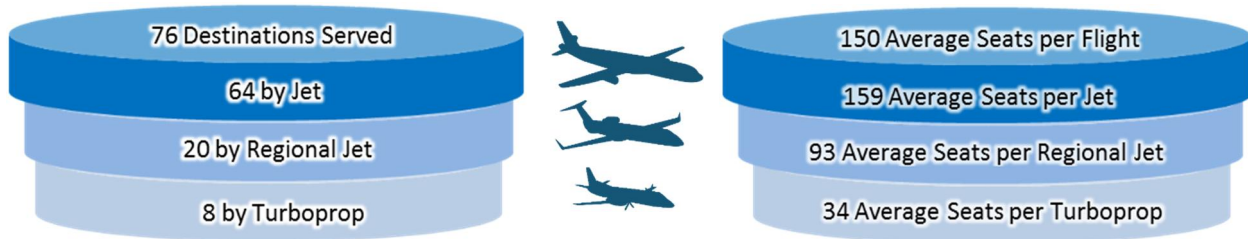


## Seasonal Flight Comparison

The data shown below in **Figure 8** further supports the identification of major routes 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. This information also shows that the Midwest region sees a large decrease in in service during the winter, but a relatively high amount of service in the other three seasons. This data also confirms that very few flights departing from MCO are bound for the northwest region of the U.S.

**Figure 8. Season by Region Analysis[8]**



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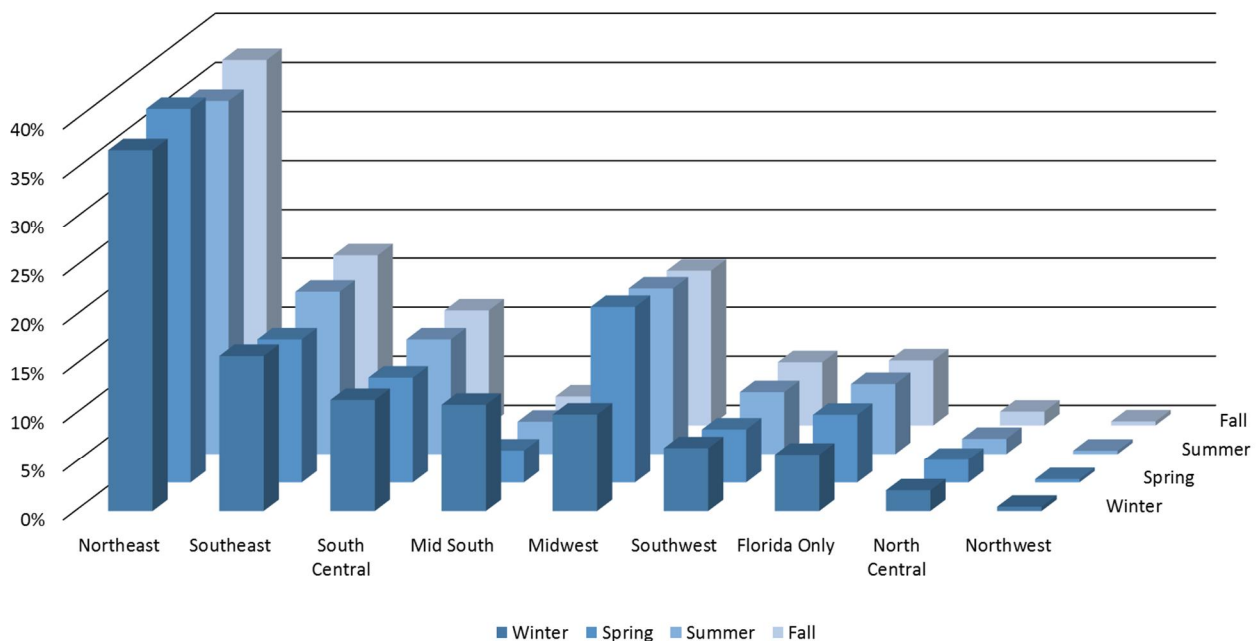
[7] The Official Airline Guide (OAG)
[8] The Official Airline Guide (OAG)

## 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 Jacksonville International Airport was 84.71, higher than the U.S. average, 82.68, for 2015. This can most likely be attributed to the high number of large jet aircraft operating at MCO which in turn results in a higher number of average seats per flight. 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 Analysis[9]

| Year | Domestic | International | Total |
|------|----------|--------------|-------|
| **Miami International** | | | |
| 2014 | 86.22 | 84.03 | 85.63 |
| 2015 | 85.76 | 82.27 | 84.71 |
| **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, MCO shipped over 237 million pounds of freight, an increase of over 100 million pounds 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. MCO Freight[10]

| Year | Freight (in pounds) |
|------|---------------------|
| 2014 | 132,825,632 |
| 2015 | 237,812,995 |

## On-Flight Market Mail Statistics

Mail statistics represent the total number of pounds of U.S. and foreign mail shipped from a given airport. MCO had a substantial increase in pounds of mail shipped in 2015 of roughly 14 million pounds. 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. MCO Mail[11]

| Year | Mail (in pounds) |
|------|------------------|
| 2014 | 2,728,816 |
| 2015 | 16,908,253 |

[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. MCO is one of two commercial service airports located in the Orlando-Kissimmee-Sanford, FL MSA. This MSA is the third largest in the state with regard to population and is home to world-wide tourist destinations.

### Drive Time and Population Analysis

**Figure 9** displays the area around MCO that can
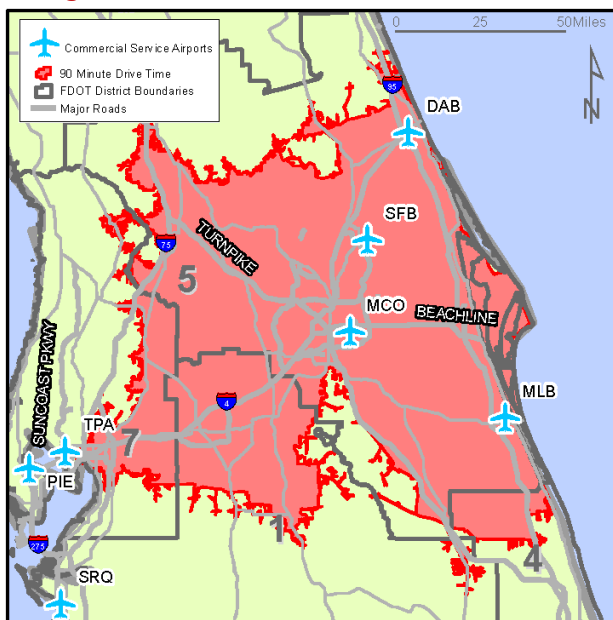
#### Figure 9. 90 Minute Drive Time Area[13]



#### Table 4. Population Within 90 Minutes[12]

| Population Trends | |
|---|---|
| 2010 Total Population | 4,556,123 |
| 2016 Total Population | 4,954,390 |
| 2021 Total Population | 5,343,008 |
| 2040 Total Population | 7,118,840 |
| 2016-2021 Annual Rate of Change | 1.52% |
| 2016-2040 Percent Change | 44% |

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 1.52 percent. With this growth rate, this area is expected to have a 44 percent growth in population by the year 2040. Therefore, by the year 2040, it is anticipated that 7,118,840 people will have a 90 minute or less drive time from their homes to MCO.

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[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 Orlando-Kissimmee-Sanford MSA follows relatively similar trends when compared to other MSA's in the state. However, the Orlando-Kissimmee-Sanford 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. Many other factors affect airports other than income, and in an area 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 Comparison[14]**
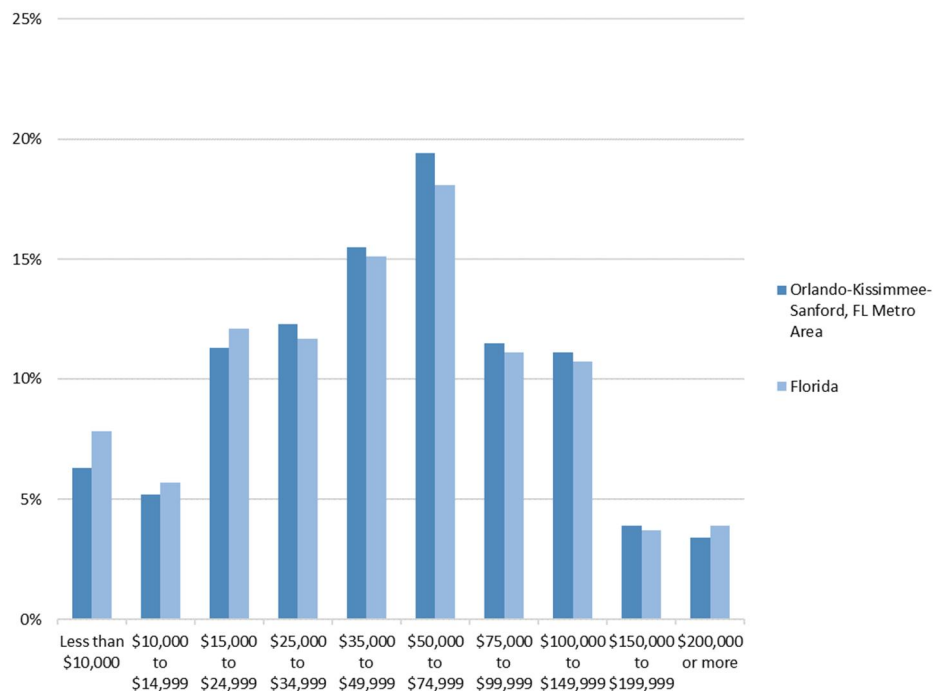


## Employment

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 Orlando-Kissimmee-Sanford MSA has a relatively parallel relationship with Florida's employment by industry percentages. However, this MSA has a much higher percentage of entertainment and food service professions when compared to the rest of Florida. This high percentage can most likely be attributed to Orlando's numerous amusement parks and tourist entertainment activities. A summary of employment by industry can be seen in **Figure 11**.

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[14] U.S. Census American Fact Finder

**Figure 11. Employment by Industry[15]**
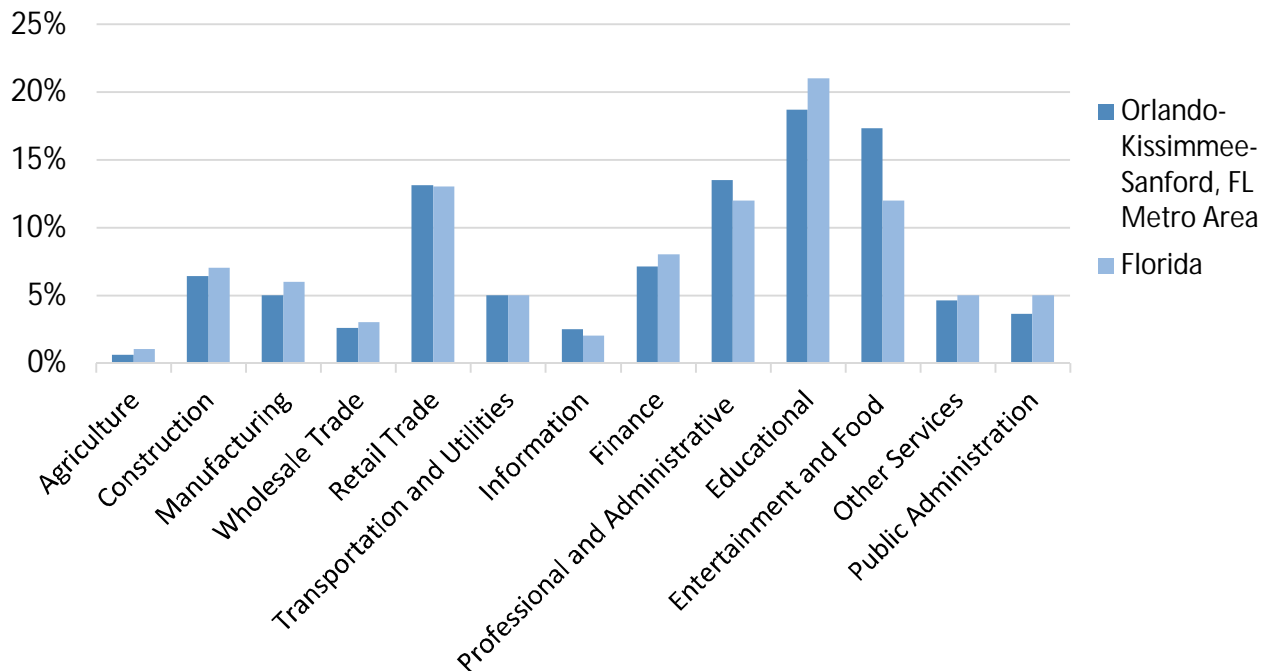


## Leakage

**Figure 12** displays the zip codes in Florida where tickets for flights departing from MCO were purchased. This graphic shows the purchases of tickets primarily in the area surrounding MCO. However, tickets have been purchased for MCO flights from all over the state of Florida. Some areas with noticeable aggregations of ticket purchases include Daytona, Melbourne, Jacksonville, and Tampa. The majority of tickets purchased for MCO flights were purchased from in-state locations. However, 42 percent of ticket purchases were from out of state locations. The other states where ticket purchases were made included but aren't limited to:

- New York – 5%
- California – 4%
- New Jersey – 3%

The market leakage analysis shows that Orlando International Airport does not lose a substantial number of passengers to any other commercial service airport. In fact, no other airport in the state is able to draw a significant

**Figure 12. In-state Ticket Purchases[16]**



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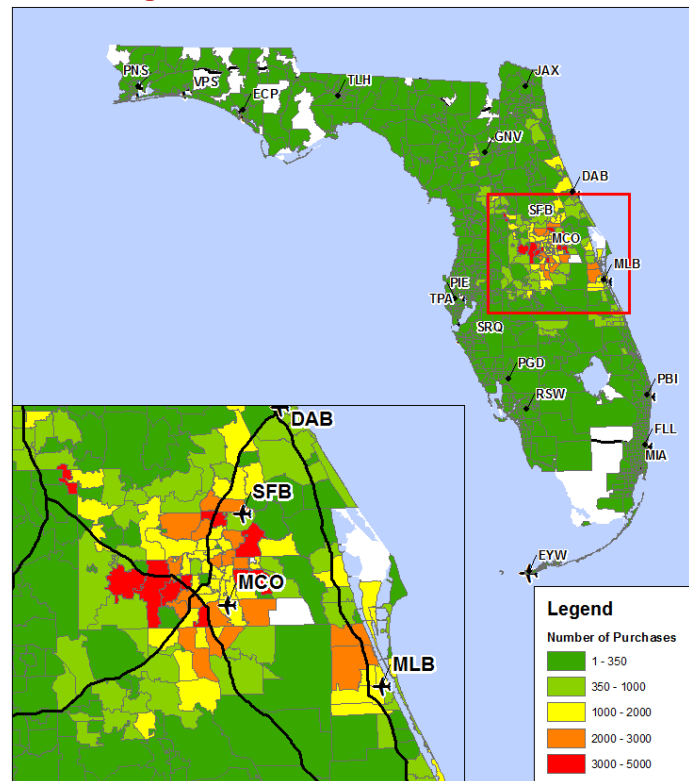
[15] U.S. Census American Fact Finder
[16] Airline Reporting Corporation (ARC)

number of passengers from Orlando International Airport's primary market. Of the passengers who depart from Orlando International Airport, 5.6 percent of are from Brevard County (the primary market for Melbourne International Airport), 5.9 percent are from Seminole County (the primary market for Orlando-Sanford International Airport), and 3.6 percent are from Volusia County (the primary market for the Daytona Beach International Airport).

Figure 13. In-state Ticket Purchases[17]
(Represented as a Percentage of the Departing Airports Total Enplanement Volumes in 2015)
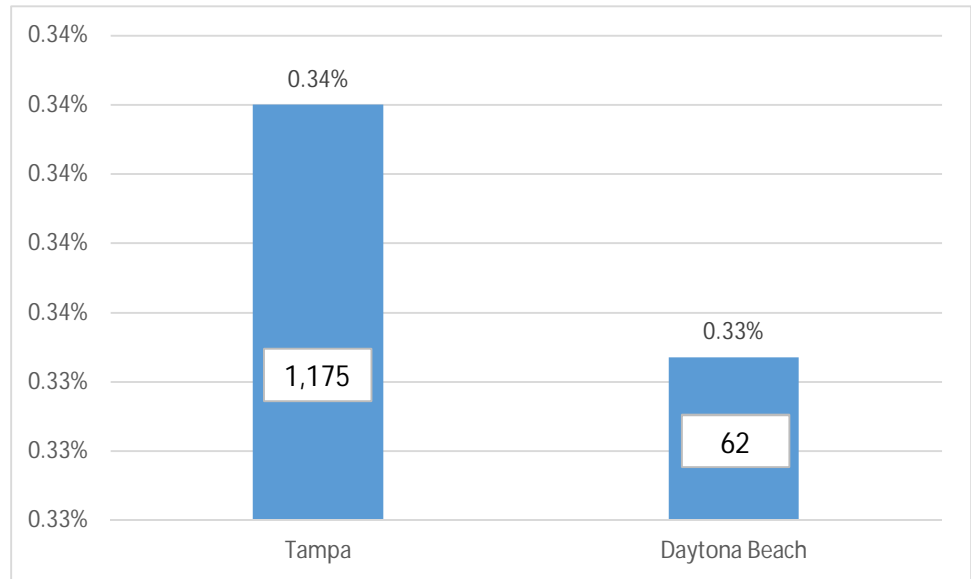


**Figure 13** illustrates two of the top airports that receive leaked passengers from the Orlando International Airport market area. The passengers who leave Orange County for commercial air service primarily use Tampa International Airport, where 0.34 percent of all passengers are from Orange County. Some passengers who leave Orange County for commercial air service use Daytona Beach International Airport, where 0.33 percent of all passengers are from Orange County. The values that are presented represent the number and percent of passengers who purchased their ticket from an Orange County zip code but flew out of an alternative airport. Data represent a 10 percent sample of all months of 2015.

[17] Airline Reporting Corporation (ARC)