

MIAMI INTERNATIONAL AIRPORT PART 139: RESEARCH POSTER

Jerzy Grodzki, Lynn University

Airport History

According to History of Miami International Airport (2020), Miami International Airport was created after executives of Pan American Airways decided to move their base from Key West to Miami. Pan American purchased their field of 116 acres of land from the southern side of N.W. 36th Street, next to Miami Springs. "By mid-1929 Miami had become the number one port of entry by air, with the capacity to handle 25 aircraft a day" (MIA, 2020, p.7). The Miami Army Airfield was constructed about a mile southwest of the airport on 36th Street. Here, many were trained to serve in WWII. Two years after the war, the railroad tracks were removed between both ports, and the two conjoined to become Miami International Airport. On December 5th, 1958, the first passenger jet service was launched by National Airlines from New York to Miami onboard a Boeing 707. Miami became home to the largest centralized terminal worldwide in 1959. Major expansion continued through the 60s, 70s, 80s, and 90s. "In 1997, the annual economic impact generated by MIA amounted to over \$13 billion and 196,000 direct and indirect jobs (MIA, 2020, p.15). MIA acquired an unprecedented high of 49.5 million passengers in 2019 and became the third busiest for international travelers along with many other accomplishments.

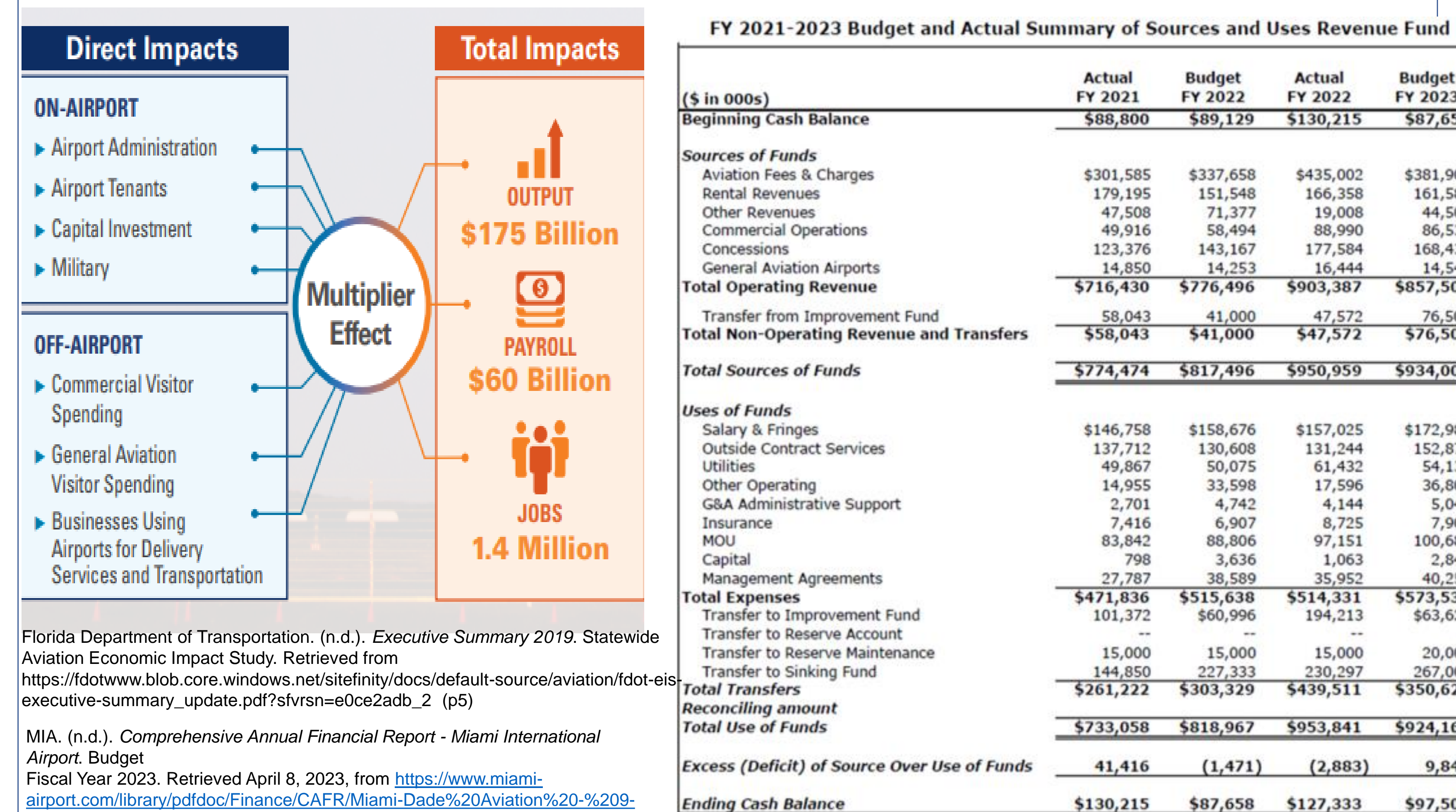
Planning and Management

The Miami International Airport is a county-operated airport. It is run by the Miami-Dade Aviation Department. According to the FAA Part 139 Airport Certification Status List, it does not have an NPIAS category and it is a large hub class 1. Miami International has a huge amount of travel in and out of the airport. As recorded by the Miami International Report for the year 2022, there were 25,269,259 deplanements and 25,415,137 enplanements. This travel includes both domestic and international travel. Miami also has a large number of ongoing operations. The ADIP (n.d.) states that there was a total of 416,422 operations in 2018, 14,941 of them being general aviation itinerants, and 455 of them being military. With so much traffic going on at this airport, it requires a vast management team. At the highest level of management is Ralph Cutie, the Miami International Airport manager. Ralph Cutie oversees all airport operations. He manages day-to-day operations, plans future goals, ensures safety, and maintains excellence. Miami International also receives help from partnerships such as EFI to continue reaching its goals. As stated in Protocol and International Affairs Division Miami-Dade Aviation Department Annual Report (2020) "EFI is a public-private partnership between Florida's business and government leaders and is the principal economic development organization for Florida. EFI's mission is to expand and diversify the state's economy through job creation" (p.33). Additional help is also given to the airport during times of distress. According to MIA, Miami International received 39.5 million dollars after the COVID-19 crisis in the CARES Act. This is also an example of a FAR that determines how federal aid to airports is regulated. Another example of how MIA is regulated through FARs is by their Class B airspace restriction. MIA also recognizes advisor circulars known as AC's as an issue. Noise abatement is an ongoing issue at airports worldwide. At MIA they recognize this. The MIA's Noise Abatement Office's purpose, "is to work with the Federal Aviation Administration (FAA), airport users, civic organizations and surrounding municipalities to develop strategies for the reduction of noise impact" (para 1).

Airport Operations Management

According to Airport Planning and Management (2019), an ACM is a list of 29 areas of concern that must be followed in order to be in compliance with 14 CFR Part 139. An example of how Miami International maintains record keeping is how they report every bird strike from flights within MIA. According to the FAA Wildlife Strike Database, in 2022 there were 101 bird strikes at Miami International Airport. An example of how MIA complies with operational maintenance would be how they work with an organization known as JBT (John Bean Technologies Corporation), JBT helps maintain the flow of passenger traffic through their baggage handling system (JBT, n.d.). They take care of the maintenance of their baggage system in order to keep the airport moving consistently. MIA must also conform to safety and emergency to comply with their ACM. A way MIA does this is through the Aviation Fire Rescue Division (MDFR). As stated by MIA (n.d.), "The Aviation Fire Rescue Division activities include mitigation of, and response to, structural and aircraft fires, as well as response to medical emergencies, fuel spills, incidents of terrorism, hazardous materials spills, bio-chemical threats, radiological exposures, and natural disasters" (para 1). Miami also maintains safety through there security checks to ensure safety onboard your flight. They also have airport police that maintain a high level of security within the airport. The MIA (n.d) reports that the units at Miami International are *The General Investigations Unit (GIU)*, *Crime Analysis Unit (CAU)*, *Specialized Projects and Operations Unit*, *Incident Containment Team (ICT)*, *Motorcycle Unit*, and the *K-9 Team*. Each of these units or teams provides an essential role in maintaining the safety and welfare of the airport. For example, the K-9 team prevents unlawful substances or living entities from leaving the baggage claim. Being one the largest, most popular airports globally, Miami has to take severe control over all aspects of Part 139 in order to maintain its success despite constant issues and pressures that arise.

Impact & Financial Reports



Conclusion

Ultimately, through this research poster of Miami International Airport, I discussed the history of Miami Airport. How it originated from Pan American Airways. I went through various facts about the airport including the structure of the port along with its runways. I also found as much information as I could on the following subjects. 1. Planning and Management, 2. Airport Operations Management, 3. Economic Activity, Capital Improvement, and Problem-Solving. Through this deep dive into Miami International, I was able to conclude that Miami International Has an extremely large amount of ongoing operations and has a vast management team to break everything down. They also receive help from other organizations such as EFI. MIA is heavily regulated to maintain its level of excellence. It maintains safety through its Fire department and Police Force. Miami International keeps track of everything including all operating costs and revenues to ensure a correct budget and cash flow. Overall Miami is expected to maintain its level of excellence and continue into future years improving through capital improvement programs. Every airport is subject to over-capacity and delays. This imminent factor is due to discrepancies such as air carrier operations, busy flight times, and weather.

About the Airport

Miami International Airport (MIA) is located near downtown Miami. Here on 3,230 acres of land lies America's busiest airport for international passengers and freight among U.S. Airports (MIA, n.d.). The airport is county-operated by Miami-Dade Aviation Department. It is grouped with 4 other airports: OPF, TMB, X51, and TNT. The majority of flights to Latin America, as well as the Caribbean from the U.S., originate from the Miami International Airport. It currently operates to 72 domestic destinations and 104 international destinations. The airport is economically viable for Miami-Dade county, "generating business revenue of \$31.9 billion annually and approximately 60 percent of all international visitors to Florida" (MIA, n.d., para 1). FareCompare (2021) reports that "Miami International Airport contains three terminals (North, Central, and South) and six concourses for a total of 131 gates" (para 4). It has four runways with the longest being 10,506 feet. Miami-Dade County(2023) reports in Facts-At-A Glance that, "MIA has 16 automated Global Entry kiosks; 12 in the North Terminal and 4 in the South Terminal" (p.2). Lastly, MIA is the first airport in the U.S. to be an IATA Designated Pharma Hub for effective safe transportation of drugs and medicines (Miami-Dade County, 2023).

Economic Activity, Capital Improvement, Problem Solving

According to MIA Adopted Budget (2023), with \$ in 000's, the begging cash balance for 2023 is \$87,658. The airport's sources of funds come from aviation fees and charges, rental revenues, concessions, and more as seen in Table 1. The total operating revenue from these funds is expected to reach \$857,508, however, after including additional funding and transfers, the total sources of funding is expected to hit \$934,008. Miami International then uses these funds to pay their salary and fringes, contract services, insurance, and more as listed in Table 1. The total expenses for MIA are projected to reach \$573,536. After transfers, this number falls to \$350,629. After subtracting the revenues and expenses MIA is left with an ending cash balance of 97,501, which is actually a significant decrease from 2022, which is at \$127,333. Taking a look at MIA international impact study (2019), Shown in model 2, Miami takes from on-airport impacts and Off-airport visitor spending impacts and then takes the multiplier impacts creating a total output of over 33 billion dollars. To better understand this concept direct impacts are money spent that is in direct relation to the aviation services that the consumer took part in. Indirect expenses are external spending done outside aviation-related spending through other businesses. This is known as the multiplier effect which draws in income from what the passenger does after they have reached their destination. This is what ultimately equates to the huge economic impact of MIA. In accordance with MIA (2023), Miami International also has many ongoing capital improvement projects. For example, passenger boarding bridge renovations. It is forecasted that during the winter of 2023, MIA will replace their existing passenger bridges, along with baggage chutes, and ground support equipment. This will lead to improvements in bridge functionality and the ability to support A380 aircraft. The capacity analysis is not included. Miami FlightRight (n.d.) reports, "The main cause of late departing and arriving flights were National Aviation System delays, accounting for 6.09% of schedule disruptions during this period. Other schedule issues were caused by the late arrival of an incoming aircraft (6.03%) and air carrier operations (5.4%). Other factors that may affect capacity or delays include imminent weather or busy times for travel. These times could be during school breaks such as the time right before Thanksgiving.

Reference list available upon request