2020 GEORGIA STATEWIDE AIR SERVICE STUDY: TECHNICAL REPORT

Prepared for:

Georgia Department of Transportation Aviation Programs Office

December 2020

Prepared by:

Delta Airport Consultants, Inc.

As required by Paragraph 425.B(4) of FAA Order 5100.38C, *Airport Improvement Program (AIP) Handbook*:

The preparation of this document may have been supported, in part, through the Airport Improvement Program financial assistance from the Federal Aviation Administration as provided under Title 49 U.S.C., Section 47104. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of this report by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable or would have justification in accordance with appropriate public laws.

Foreword

This Georgia Statewide Air Service Study was prepared in early 2020 and does not reflect the impacts the Coronavirus 19 (COVID-19) pandemic may have on the nation's and Georgia's aviation systems. COVID-19 is a respiratory virus that was initially identified in mainland China in late 2019, which quickly spread globally in the first quarter of 2020. The initial impact of the COVID-19 pandemic on air service has been significant and has impacted every sector of the commercial airline industry.

On March 27, 2020, President Trump signed the Coronavirus Aid, Recovery, and Economic Security Act (the CARES Act) into law. This legislation makes available a $2.2 trillion-dollar financial aid package to individuals, businesses, and other entities impacted by the COVID-19 crisis. Specific to the commercial airline industry, the Act provides $25 billion in loan guarantees to U.S. airline passenger carriers, with an additional $4 billion allocated to cargo carriers.

On March 31, 2020, the U.S. Department of Transportation (USDOT) issued Order 2020-3-10, Continuation of Certain Air Service. This order proposes conditions for those air passenger carriers that receive financial assistance from the CARES Act, most notably that they maintain a minimum level of air service through at least September 30, 2020. For points (geographic areas, not necessarily airports) served at least five days weekly, based on airline schedules prior to March 1, 2020, airlines must continue offering at least one flight per day, five days per week. For points served fewer than five days weekly, carriers must maintain at least one scheduled weekly flight. Carriers have the right to request an exemption from this requirement in certain cases. The order is clear that it is not intended to impact those air carriers already operating under an Essential Air Service (EAS) contract, or those communities served by or eligible for EAS.

Given the unprecedented nature of the pandemic, additional impacts to the commercial airline industry are anticipated due to reduced travel demand resulting from COVID-19. It is assumed that any planned service improvements identified in this report could be impacted, and the recommendations in the report may be implemented following recovery from the effects of the pandemic.

Table of Contents

1. Introduction 1

1.1 Purpose of Study 1

1.2 Airline Terminology 1

1.3 Airport Classifications 2

1.4 Georgia's Airport System and Study Airports 3

2. Air Service Trends and Issues 4

2.1 U.S. Air Service Industry 4

2.1.1 A New Business Model for U.S. Airlines 4

2.2 General Air Service Trends 7

2.2.1 Pilot Shortage 7

2.2.2 Fleet Evolution 7

2.2.3 Airport Infrastructure and Connectivity Constraints 8

2.2.4 The Rise of Hub Alternatives for Leisure Markets 8

2.2.5 "Open Skies" Agreements 8

2.2.6 Volatility of Oil Prices 9

2.2.7 The U.S. Economy, Global Trade Tensions, and Wall Street 9

2.3 Literature Review Summary 9

3. In-Depth Review of Georgia's Commercial Airports 10

3.1 Hartsfield-Jackson Atlanta International Airport 10

3.2 Savannah/Hilton Head International Airport 15

3.3 Augusta Regional Airport 17

3.3.1 Leakage Analysis – Augusta Regional Airport 18

3.3.2 Benchmarking Analysis – Augusta Regional Airport 25

3.3.3 Sensitivity Analysis – Augusta Regional Airport 28

3.3.4 Summary of Leakage and Benchmarking Findings for Augusta Regional Airport 28

3.4 Brunswick Golden Isles Airport 29

3.4.1 Leakage Analysis – Brunswick Golden Isles Airport 29

3.4.2 Benchmarking Analysis – Brunswick Golden Isles Airport 37

3.4.3 Sensitivity Analysis – Brunswick Golden Isles Airport 40

3.4.4 Summary of Leakage and Benchmarking Findings for Brunswick Golden Isles Airport 40

3.5 Columbus Airport 41

3.5.1 Leakage Analysis – Columbus Airport 41

3.5.2 Benchmarking Analysis – Columbus Airport 46

3.5.3 Sensitivity Analysis – Columbus Airport 48
3.5.4 Summary of Leakage and Benchmarking Findings for Columbus Airport 49
3.6 Southwest Georgia Regional Airport 50
3.6.1 Leakage Analysis – Southwest Georgia Regional Airport 50
3.6.2 Benchmarking Analysis – Southwest Georgia Regional Airport 55
3.6.3 Sensitivity Analysis – Southwest Georgia Regional Airport 57
3.6.4 Summary of Leakage and Benchmarking Findings for Southwest Georgia Regional Airport 58
3.7 Valdosta Regional Airport 58
3.7.1 Leakage Analysis – Valdosta Regional Airport 59
3.7.2 Benchmarking Analysis – Valdosta Regional Airport 64
3.7.3 Sensitivity Analysis – Valdosta Regional Airport 66
3.7.4 Summary of Leakage and Benchmarking Findings for Valdosta Regional Airport 67
3.8 Middle Georgia Regional Airport 68
3.8.1 Market Potential Analysis – Middle Georgia Regional Airport 68
3.8.2 Benchmarking Analysis – Middle Georgia Regional Airport 73
3.8.3 Sensitivity Analysis – Middle Georgia Regional Airport 76
3.8.4 Summary of Market Potential and Benchmarking Findings for Middle Georgia Regional Airport 77
3.9 Athens-Ben Epps Airport 77
3.9.1 Market Potential Analysis – Athens-Ben Epps Airport 78
3.9.2 Benchmarking Analysis – Athens-Ben Epps Airport 83
3.9.3 Sensitivity Analysis – Athens-Ben Epps Airport 85
3.9.4 Summary of Market Potential and Benchmarking Findings for Athens-Ben Epps Airport 86
4. Summary of Benchmarking and Leakage Analysis for Georgia Nonhub Airports 87
4.1 Georgia's Nonhub Airports and Passenger Attraction 87
4.2 Georgia Nonhub Airports and Passenger Leakage 92
4.2.1 Leakage to Hartsfield-Jackson Atlanta International Airport 93
4.2.2 Leakage to Jacksonville International Airport 94
4.2.3 Leakage to Savannah/Hilton Head International Airport 94
4.2.4 Leakage to Orlando International Airport 95
4.3 Performance Comparison of Georgia Nonhub Airports to All U.S. Nonhub Airports 96
4.3.1 Performance of Nonhub Airports Nationwide 96
4.3.2 Performance Comparison of Georgia's Nonhub Airports to U.S. Nonhub Airports 98
4.4 Statewide Findings from Leakage and Benchmarking Analyses for Nonhub Airports 101

4.5 Loss of Service Scenarios 102
4.5.1 New Service from Existing Airline 102
4.5.2 New Service from New Airlines 103
5. Delta Air Lines' Scheduled Commercial Service and Hartsfield-Jackson Atlanta International Airport 104
5.1 Delta Air Lines' Performance in Other Nonhub Markets 104
5.2 Delta Air Lines Hub Comparisons – Georgia Airports versus Peer Markets 108
5.2.1 Seat Capacity 108
5.2.2 Passenger Traffic 109
5.2.3 Load Factor 110
5.2.4 Conclusion and Findings 110
6. The Future of Georgia's Commercial Air Service 111
6.1 The COVID-19 Pandemic 111
6.2 The Presence of Hartsfield-Jackson Atlanta International Airport 112
6.3 Increased Seat Capacity 112
6.4 Fleet Size Reconfiguration 113
6.5 Fare Desirability 115
6.6 Loss of Passengers to Competing Airports 116
7. Efforts to Promote Air Service 117
7.1 Federal, State, and Local Air Service Programs 117
7.1.1 Essential Air Service (EAS) Program 117
7.1.2 Small Community Air Service Development Program (SCASDP) 118
7.2 Airport Air Carrier Incentive Programs 120
7.3 State Survey and Review of Other State Programs 120
7.3.1 Survey of Statewide Programs 120
7.3.2 Current Statewide Air Service Development Programs 123
7.3.3 Other State Air Service Development Programs 129
7.3.4 Cargo Survey 130
7.3.5 Summary of State Survey Findings 131
7.3.6 Conclusions from State Survey 132
8. Findings and Conclusions for Statewide Air Service Study 133
8.1 Findings – General 133
8.2 Findings – Georgia Airports 134
8.3 Findings – Other States 135
8.4 Conclusions 137

9. Georgia Air Service Promotion Recommendations 137

9.1 Potential Statewide Initiatives 138

9.2 Potential Statewide Program 138

9.2.1 State Air Service Support Grant Program 138

9.2.2 Guidelines for a GDOT Air Service Promotion Program 139

9.2.3 Program Objectives and Measurement of Success 139

Appendix 1 Literature Review 141

Figures

Figure 1-1: Study Airports 4

Figure 2-1: Airline Consolidation, 2000 to 2017 6

Figure 2-2: Relationship Between U.S. Airline Industry Available Seat Miles (ASM) Index and U.S. Real GDP Index, 1978 to Present 6

Figure 3-1: Top Large Hub Airports Ranked by Total Enplanements (Millions) 11

Figure 3-2: Type of Airport Passenger at Hartsfield-Jackson Atlanta International Airport 12

Figure 3-3: Hartsfield-Jackson Atlanta International Airport – Domestic Outbound Seat Capacity (Millions) 12

Figure 3-4: Top 15 Large Hub Airports Ranked by Domestic Outbound Seats, 2019 13

Figure 3-5: Hartsfield-Jackson Atlanta International Airport – Domestic O&D Passengers Share 15

Figure 3-6: Top 10 Small Hub Airports Ranked by Percentage Change in Enplanements, 2014 – YE 2019 15

Figure 3-7: Top 20 Small Hub Airports Ranked by Domestic Outbound Seats, 2019 16

Figure 3-8: Savannah/Hilton Head International Airport – Domestic O&D Passenger Share by Airline, 2014 – 2019 17

Figure 3-9: Augusta Regional Airport 60-Mile Catchment Area 19

Figure 3-10: Augusta Regional Airport – Passenger Leakage to Three Alternative Airports 20

Figure 3-11: Augusta Regional Airport Catchment Area – Capture by Air Carrier 22

Figure 3-12: Augusta Regional Airport 30-Mile Catchment Area 23

Figure 3-13: Augusta Regional Airport 30-Mile Catchment Area – Capture by Air Carrier 25

Figure 3-14: Augusta Regional Airport – Sensitivity Analysis 28

Figure 3-15: Brunswick Golden Isles Airport Catchment Area – Two Views 30

Figure 3-16: Brunswick Golden Isles Airport – Passenger Leakage to Alternative Airports 31

Figure 3-17: Brunswick Golden Isles Airport 60-Mile Catchment Area – Capture by Air Carrier 34

Figure 3-18: Brunswick Golden Isles Airport 30-Mile Catchment Area 35

Figure 3-19: Brunswick Golden Isles Airport 30-Mile Catchment Area – Capture by Air Carrier 37

Figure 3-20: Brunswick Golden Isles Airport – Sensitivity Analysis 40

Figure 3-21: Columbus Airport Catchment Area 42

Figure 3-22: Columbus Airport – Passenger Leakage to Alternative Airports 43
Figure 3-23: Columbus Airport – Capture by Air Carrier 45
Figure 3-24: Columbus Airport – Sensitivity Analysis 49
Figure 3-25: Southwest Georgia Regional Airport Catchment Area 51
Figure 3-26: Southwest Georgia Regional Airport – Passenger Leakage to Alternative Airports 52
Figure 3-27: Southwest Georgia Regional Airport – Capture by Air Carrier 54
Figure 3-28: Southwest Georgia Regional Airport – Sensitivity Analysis 58
Figure 3-29: Valdosta Regional Airport Catchment Area 60
Figure 3-30: Valdosta Regional Airport – Passenger Leakage to Alternative Airports 61
Figure 3-31: Valdosta Regional Airport Catchment Area – Capture by Air Carrier 63
Figure 3-32: Valdosta Regional Airport – Sensitivity Analysis 67
Figure 3-33: Middle Georgia Regional Airport 60-Mile Catchment Area 69
Figure 3-34: Middle Georgia Regional Airport Proximity to Hartsfield-Jackson Atlanta International Airport 70
Figure 3-35: Middle Georgia Regional Airport Catchment Area – Capture by Air Carrier 71
Figure 3-36: Middle Georgia Regional Airport 30-Mile Catchment Area 72
Figure 3-37: Middle Georgia Regional Airport 30-Mile Catchment Area – Capture by Air Carrier 73
Figure 3-38: Middle Georgia Regional Airport – Sensitivity Analysis 76
Figure 3-39: Athens-Ben Epps Airport Catchment Area 79
Figure 3-40: Athens-Ben Epps Airport Proximity to Hartsfield-Jackson Atlanta International Airport 80
Figure 3-41: Athens-Ben Epps Airport Catchment Area – Capture by Air Carrier 81
Figure 3-42: Athens-Ben Epps Airport 30-Mile Catchment Area 82
Figure 3-43: Athens-Ben Epps Airport 30-Mile Catchment Area – Capture by Air Carrier 83
Figure 3-44: Athens-Ben Epps Airport – Sensitivity Analysis 86
Figure 4-1: Catchment Areas of Georgia's Commercial Service and Surrounding Airports 88
Figure 4-2: Capture of Georgia Nonhub Airport Traffic by Airline, 2019 90
Figure 4-3: Passenger Traffic Within Georgia's Nonhub Airport Catchment Areas Which Uses an Alternative Airport 90
Figure 4-4: Percent of Georgia Nonhub Traffic Captured and Lost by Delta Air Lines and American Airlines 91
Figure 4-5: Total Outbound Seats at Nonhub Airports by Carrier Type 96
Figure 4-6: Number of Outbound Domestic Seats (in Millions) at Nonhub Airports, 2004 – 2019 97
Figure 4-7: Average Domestic Seats per Departure at Nonhub Airports, 2004 – 2019 97
Figure 4-8: Number of Departures (Thousands) at Nonhub Airports, 2004 – 2019 97
Figure 4-9: Domestic Capacity (Passenger Seats) by Network Carrier, 2004 – 2019 98
Figure 4-10: Average Access to Large Hub Airport from U.S. Nonhub Airports 99
Figure 4-11: Average Seats per Departure – Georgia Nonhub Airports Versus U.S. Nonhub Airports, 2014 – 2019 100

Figure 4-12: Average Load Factor – Georgia Nonhub Airports Versus U.S. Nonhub Airports, 2014 – 2019 100
Figure 5-1: Number of Domestic Points Served Nonstop by Airline, 2014 Versus 2019 105
Figure 5-2: U.S. Nonhub Airports Where Delta Air Lines Has a Seat Share of 5% or More, 2019 105
Figure 5-3: Increased Competition Since 2014 at 18 Nonhub Airports Served by Delta Air Lines 106
Figure 5-4: Delta Air Lines' Passenger Traffic Performance by Market and Competitive Makeup, 2014 Versus 2019 106
Figure 5-5: Delta Air Lines' Revenue Performance by Market and Competitive Makeup, 2014 Versus 2019 107
Figure 5-6: Delta Air Lines' Passenger Traffic Performance at Small Airports in Georgia, 2014 Versus 2019 107
Figure 5-7: Delta Air Lines' Revenue Performance at Small Airports in Georgia, 2014 Versus 2019 108
Figure 5-8: Annual Outbound Seats to Delta Air Lines-Exclusive Nonhub Markets from Hubs, 2014 – 2019 109
Figure 5-9: Sum of Nonhub Airport Passenger Traffic Served Exclusively by Delta Air Lines from Its Hubs, 2014 – YE2019 109
Figure 5-10: Average Load Factor in Nonhub Airports Served Exclusively by Delta Air Lines, 2014 – YE2019 110
Figure 6-1: Annual Change in Delta Air Lines' Seat Capacity (in Thousands) 112
Figure 6-2: Delta Air Lines' Annual Small Regional Jet Departures at Its Hubs in 2019 113
Figure 6-3: Number of Nonhub Airports Served from Each of Delta Air Lines' Eight Hubs 114
Figure 7-1: Airports Receiving Essential Air Service Funding as of 2018 118

Tables

Table 1-1: Federal Aviation Administration (FAA) Commercial Airport Hub Definitions 2
Table 3-1: Hartsfield-Jackson Atlanta International Airport – Share of Domestic Departures by Aircraft Type 14
Table 3-2: Savannah/Hilton Head International Airport – Share of Domestic Departures by Aircraft Type 17
Table 3-3: Air Service at Augusta Regional Airport 18
Table 3-4: Augusta Regional Airport – Passenger Traffic to Alternative Airports, YE 1Q19 20
Table 3-5: Top 20 Markets in the Augusta Regional Airport 60-Mile Catchment Area Using Alternative Airports, YE2019 21
Table 3-6: Augusta Regional Airport – Average One-Way Fare Comparison 21
Table 3-7: Top Five Markets in the Augusta Regional Airport 30-Mile Catchment Area Using Alternative Airports, YE 1Q19 24
Table 3-8: Passenger Loss Within the Augusta Regional Airport 30-Mile Catchment Area 24
Table 3-9: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators 26
Table 3-10: Augusta Regional Airport's Ranking by Key Performance Indicators 27
Table 3-11: Air Service at Brunswick Golden Isles Airport 29
Table 3-12: Passenger Traffic to Alternative Airports, YE 1Q19 31
Table 3-13: Top 20 Markets in Brunswick Golden Isles Airport 60-Mile Catchment Area Using Alternative Airports, YE 1Q19 32
Table 3-14: Brunswick Golden Isles Airport – Average One-Way Fare Comparison 32

Table 3-15: Top 5 Markets in Brunswick Golden Isles Airport 30-Mile Catchment Area Using Alternative Airports, YE1Q19 35
Table 3-16: Passenger Loss Within the Brunswick Golden Isles Airport 30-Mile Catchment Area 36
Table 3-17: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators 38
Table 3-18: Brunswick Golden Isles Airport's Ranking by Key Performance Indicators 39
Table 3-19: Air Service at Columbus Airport 41
Table 3-20: Columbus Airport – Passenger Traffic to Alternative Airports, YE1Q19 43
Table 3-21: Top 20 Markets in the Columbus Airport Catchment Area Using Alternative Airports, YE 1Q19 44
Table 3-22: Average Fare Comparison – Columbus Airport 44
Table 3-23: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators 46
Table 3-24: Columbus Airport's Ranking by Key Performance Indicators 48
Table 3-25: Air Service at Southwest Georgia Regional Airport 50
Table 3-26: Southwest Georgia Regional Airport – Passenger Traffic to Alternative Airports, YE 1Q19 52
Table 3-27: Top 20 Markets in Southwest Georgia Regional Airport Catchment Area Using Alternative Airports, YE 1Q19 53
Table 3-28: Southwest Georgia Regional Airport – Average One-Way Fare Comparison 53
Table 3-29: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators 55
Table 3-30: Southwest Georgia Regional Airport's Ranking by Key Performance Indicators 57
Table 3-31: Air Service at Valdosta Regional Airport 59
Table 3-32: Passenger Traffic to Alternative Airports, YE 1Q19 61
Table 3-33: Top 20 Markets in Valdosta Regional Airport Catchment Area Using Alternative Airports, YE 1Q19 62
Table 3-34: Valdosta Regional Airport – Average One-Way Fare Comparison 62
Table 3-35: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators 64
Table 3-36: Valdosta Regional Airport's Ranking by Key Performance Indicators 66
Table 3-37: Air Service at Middle Georgia Regional Airport 68
Table 3-38: Passenger Traffic to Alternative Airport, YE 1Q19 70
Table 3-39: Top Five Markets in Middle Georgia Regional Airport Catchment Area Using Alternative Airports, YE 1Q19 71
Table 3-40: Top Five Markets in Middle Georgia Regional Airport 30-Mile Catchment Area Using Alternative Airports, YE 1Q19 73
Table 3-41: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators 74
Table 3-42: Middle Georgia Regional Airport's Ranking by Key Performance Indicators 76
Table 3-43: Passenger Traffic to Alternative Airport, YE 1Q19 80
Table 3-44: Top Five Markets in Athens-Ben Epps Airport Catchment Area Using Alternative Airports, YE 1Q19 80

Table 3-45: Top Five Markets in Athens-Ben Epps Airport 30-Mile Catchment Area Using Alternative Airports, YE 1Q19 82
Table 3-46: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators 84
Table 3-47: Athens-Ben Epps Airport's Ranking by Key Performance Indicators 85
Table 4-1: Adjusted Total Passenger Traffic from Georgia's Combined – Nonhub Airport Catchment Areas 92
Table 4-2: Georgia Nonhub Passengers Choosing Hartsfield-Jackson Atlanta International Airport Over Their Local Airport 93
Table 4-3: Georgia Nonhub Passengers Choosing Jacksonville International Airport Over Their Local Airport 94
Table 4-4: Georgia Nonhub Passengers Choosing Savannah/Hilton Head International Airport Over Their Local Airport 94
Table 4-5: Georgia Nonhub Passengers Choosing Orlando International Airport Over Their Local Airport 95
Table 4-6: Large Hub Access from Georgia's Nonhub Airports 99
Table 4-7: Passenger Traffic Growth by Georgia Nonhub Airports, 2014 – 2019 101
Table 4-8: Outbound Seat Capacity of Georgia Nonhub Airports, 2014 – 2019 101
Table 6-1: The 57 Nonhub Airports Served at Hartsfield-Jackson Atlanta International Airport – Ranked by Enplanements 114
Table 6-2: The 57 Nonhub Airports Served by Delta Air Lines – Ranked by Average One-Way Fare 115
Table 7-1: Georgia – Small Community Air Service Development Program (SCASDP) Grants 119
Table 7-2: State Air Service Development Programs – Funding 121
Table 7-3: State Air Service Development Programs – Activities 122
Table 7-4: State-Reported Air Cargo/Freight Activities 131
Table 9-1: Summary of Current State of Commercial Service Airports in Georgia 140

This page left intentionally blank.

1. Introduction

The Georgia Department of Transportation (GDOT) initiated a Statewide Air Service Study in 2019 to review commercial air service conditions in the state and to evaluate the potential establishment of programs and policies to preserve and improve air service for the state's citizens, businesses, and visitors. The study included:

- A Leakage Analysis or "Market Potential" Analysis for seven of Georgia's nonhub airports
- A Benchmarking (Peer Comparison) Analysis for seven of Georgia's nonhub airports
- An analysis of Air Service Trends and Issues, both nationwide and local
- An analysis of Georgia's Commercial Air Service system, including Georgia's nonhub airports as well as its two largest commercial service airports (Hartsfield-Jackson Atlanta International Airport and Savannah/Hilton Head International Airport)
- A statewide survey effort and summary of State Air Service Programs and Activities across the United States (U.S.)
- A Literature Review of similar research that was previously completed, relating to existing air service support and marketing programs nationwide

This Technical Report includes a comprehensive review of the individual studies conducted, reports prepared, and recommendations made during the Statewide Air Service Study effort. In addition, this Technical Report contains:

- Additional analysis of current air service in Georgia
- A discussion of the performance of, and competition faced by, Delta Air Lines, the airline which serves most commercial service airports in Georgia
- A summary of the future of Georgia's commercial air service
- Recommendations for statewide initiatives and programs for GDOT's consideration

1.1 Purpose of Study

GDOT has initiated the Statewide Air Service Study to support its effort to preserve and improve air service for Georgia's commercial service airports. Specifically, the research and analysis efforts included in the study:

- Provide an overview of current commercial air service conditions in Georgia
- Determine the true size of the potential passenger market for Georgia's nonhub airports
- Identify possible factors influencing the loss of passengers to other competing airports
- Identify current trends impacting airline service nationwide and trends specific to Georgia
- Consider the impacts to Georgia's commercial service should one or more airport lose air service
- Evaluate potential programs and policies which may support existing or additional air service in Georgia

1.2 Airline Terminology

For the purposes of this report, the following airline terms are used. These terms reflect both Federal Aviation Administration (FAA) and industry practices.

- **Mainline carriers:** Carriers that provide service primarily via aircraft with 90 seats or greater. Mainline carriers include network carriers as well as other airlines that operate large aircraft.

- **Network carriers:** Mainline carriers that primarily operate out of large hub airports and have regional airline partners with routes that feed their network.
- **Legacy mainline carriers:** Mainline carriers that provided service prior to the Airline Deregulation Act of 1978. Legacy carriers are American Airlines, Delta Air Lines, and United Airlines.
- **Regional carriers:** Carriers providing service primarily via aircraft with less than 89 seats. Most regional jets have 50-76 seats and are often called large regional jets. Small regional jets have less than 50 seats. Regional air carriers typically have routes that serve mainly as feeders to the mainline carriers.
- **Low-cost carriers (LCC):** Carriers that operate with a high emphasis on minimizing operating costs and without some of the traditional services and amenities offered by mainline carriers, resulting in lower fares and fewer comforts. LCC include Southwest Airlines and JetBlue.
- **Ultra low-cost carriers (ULCC):** Carriers whose business models deviate further than an LCC from a standard cost carrier, with ULCC having minimal services included in the fare and several add-on fees. ULCC include Allegiant Air, Spirit Airlines, and Frontier Airlines.

1.3 Airport Classifications

Airports in the National Plan of Integrated Airport Systems (NPIAS) are classified as either primary or nonprimary. Based on activity levels, primary airports are further grouped into four categories: large, medium, small, and nonhub. Nonprimary airports with commercial air service and at least 2,500 annual passenger enplanements are also classified as nonhub (**Table 1-1**).

Table 1-1: Federal Aviation Administration (FAA) Commercial Airport Hub Definitions

Commercial Airport Classification	Hub Type	U.S. Annual Passenger Enplanements
Primary	Large	≥ 1.00%
	Medium	≥ 0.25% and < 1.00%
	Small	≥ 0.05% and < 0.25%
	Nonhub	≥ 10,000 and < 0.05%
Nonprimary	Nonhub	≥ 2,500 and < 10,000

Source: FAA.gov, Federal Aviation Administration, https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/categories/.

According to the FAA, there are 266 primary, nonhub airports and 123 nonprimary, nonhub airports in the U.S.,[1] all of which are competing for the resources necessary to stay connected to the national air transportation system.

[1] Federal Aviation Administration, "Final Calendar Year 2018 Enplanements at All Commercial Service Airports (by Rank)," www.faa.gov, updated as of December 20, 2019, https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/.

1.4 Georgia's Airport System and Study Airports

Georgia's commercial airport system includes five nonhub airports that receive scheduled commercial air service from a U.S. network carrier (American Airlines, Delta Air Lines, and/or United Airlines). The five nonhub airports are:

- Augusta Regional Airport (AGS)
- Brunswick Golden Isles Airport (BQK)
- Columbus Airport (CSG)
- Southwest Georgia Regional Airport (ABY)
- Valdosta Regional Airport (VLD)

Except for Augusta Regional Airport, each is served exclusively by Delta Air Lines with service provided only to Hartsfield-Jackson Atlanta International Airport (ATL).

In addition to these five airports, Middle Georgia Regional Airport (MCN) is a nonhub airport that receives limited commercial air service from Contour Airlines to Baltimore-Washington Thurgood Marshall International Airport (BWI) through the U.S. Department of Transportation's (USDOT's) Essential Air Service (EAS) program.

In addition to Georgia's nonhub airports, two remaining airports currently provide commercial service:

- Savannah/Hilton Head International Airport (SAV), identified by the FAA as a primary, small hub airport
- Hartsfield-Jackson Atlanta International Airport, a primary, large hub airport that is home to Delta Air Lines and consistently rated by FAA as one of the busiest airports in the country

The Statewide Air Service Study also includes Athens-Ben Epps Airport (AHN). Athens-Ben Epps Airport had commercial airline service supported by the EAS program until it ended in September 2014. The airport became ineligible for EAS subsidies when passenger levels declined below the required level of at least 10 passengers per service day. As of May 2020, the airport has not regained scheduled commercial airline service but continues to pursue reinstating service.

Figure 1-1 depicts the location of the study airports discussed in this Technical Report.

Figure 1-1: Study Airports

Source: Delta Airport Consultants, Inc.

2. Air Service Trends and Issues

The following section provides an overview of the recent history of the United States (U.S.) air service industry and relevant industry-wide trends and issues which could impact Georgia's air service system, especially at its smaller nonhub airports. It then provides a summary of the findings of an industry-wide review of existing air service support and marketing programs nationwide.

2.1 U.S. Air Service Industry

2.1.1 A New Business Model for U.S. Airlines

Prior to the passing of the Airline Deregulation Act of 1978, the airline industry was controlled by the Civil Aeronautics Board (CAB), an agency of the U.S. federal government. CAB regulated airline routes, fares, and the entry of new airlines into the market. Since deregulation and the inception of a free market, there have been five distinct business cycles in the U.S. airline industry:

- **Expansion and Consolidation (1978 – 2000):** Legacy airlines expanded service, and there was a flock of new entrants to the market, like America West Airlines and ValuJet Airlines. Eventually, many of the new entrants failed or were acquired by larger, legacy carriers during the mid-1990s. Airline consolidation, or the merger of two airlines, continued into the 2000s. Carriers

consolidated in the 1980s to build regional hubs. Consolidation in the 1990s was more focused on buying assets like international route authorities. Consolidation in the 2000s was largely necessary for airlines to survive financially.

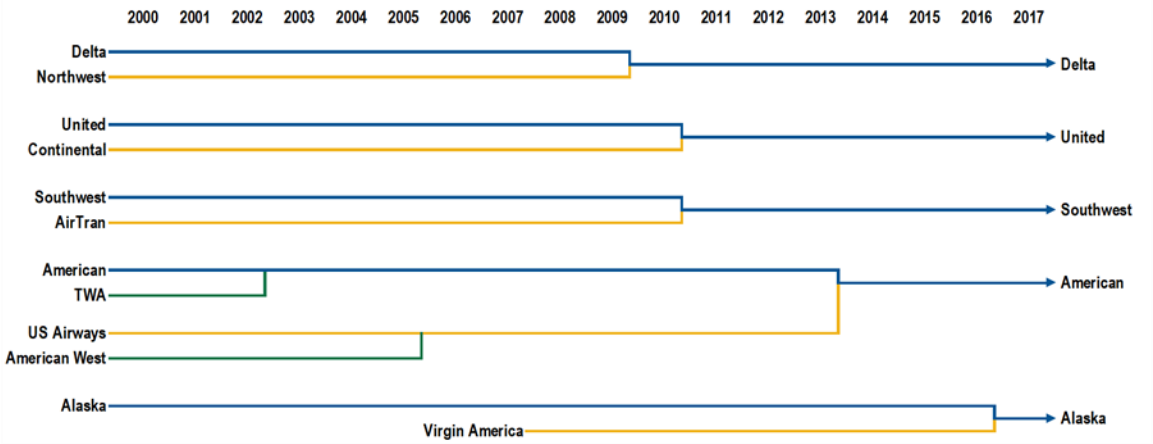
- **Status Quo (2001 – 2006):** During the early 2000s, the airline industry was significantly impacted by the events of 9/11, its aftermath, and the beginning of a rise in fuel prices. The average cost of a barrel of oil from 1978 – 2004 was less than $50.[2] Oil prices peaked at $165 per barrel in 2008. Jet fuel is the second largest cost center after labor for an airline. This rapid increase in oil cost made the majority of commercial airline service unprofitable and unsustainable. There was little relationship between growth in U.S. gross domestic product (GDP) and the number of available airline seats (seat capacity). Historically, there had been a high and positive correlation between GDP and airline service.
- **Rationalization (2007 – 2009):** The Great Recession and the "new normal" of higher fuel prices sent macroeconomic shocks into the airline industry. In response, airlines underwent an active reduction in available seat capacity. The industry also moved its focus from mainline operations to use of regional operators or "feeders" that used smaller aircraft. This trend further reduced the number of available seats. As the supply of available seats decreased, the remaining seats became more valuable because of the scarcity, and fares subsequently rose. This resulted in increased revenues per seat for the airlines.
- **Capacity Discipline (2010 – 2014):** During this period, seat capacity growth continued to be restricted by network carriers, including Southwest Airlines (a "Low-Cost Carrier"), even as increased passenger enplanements persisted. A growing demand for seats, as demonstrated by increased enplanements, coupled with restricted supply in available seats, led to even higher airline revenues per available seat.
- **Capacity Regeneration (2015 – present):** The seat capacity discipline exhibited by airlines prior to 2015 began to give way to new, measured seat growth that more closely mirrored growth in the U.S. economy. Seat growth since 2015 has been the result of a general trend toward larger aircraft, in addition to added service. Air carriers continue to trend toward replacing smaller 50-seat regional jets with larger aircraft that can seat at least 70 to 90 passengers.[3]

In 2000, eleven mainline carriers were operating in the United States. Today, after seven major airline consolidations, only five mainline carriers remain (**Figure 2-1**). Together with JetBlue, Spirit Airlines, Frontier Airlines, Allegiant Air, and Sun Country Airlines, these carriers provide the vast majority of U.S. scheduled domestic service.

[2] "Crude Oil Prices – 70 Year Historical Chart," Macrotrends.net, accessed March 25, 2020, https://www.macrotrends.net/1369/crude-oil-price-history-chart.

[3] Federal Aviation Administration, *Report to Congress: National Plan of Integrated Airport Systems (NPIAS) 2019-2023*, www.faa.gov, September 26, 2018, p. 33, https://www.faa.gov/airports/planning_capacity/npias/reports/media/NPIAS-Report-2019-2023-Narrative.pdf.

Figure 2-1: Airline Consolidation, 2000 to 2017

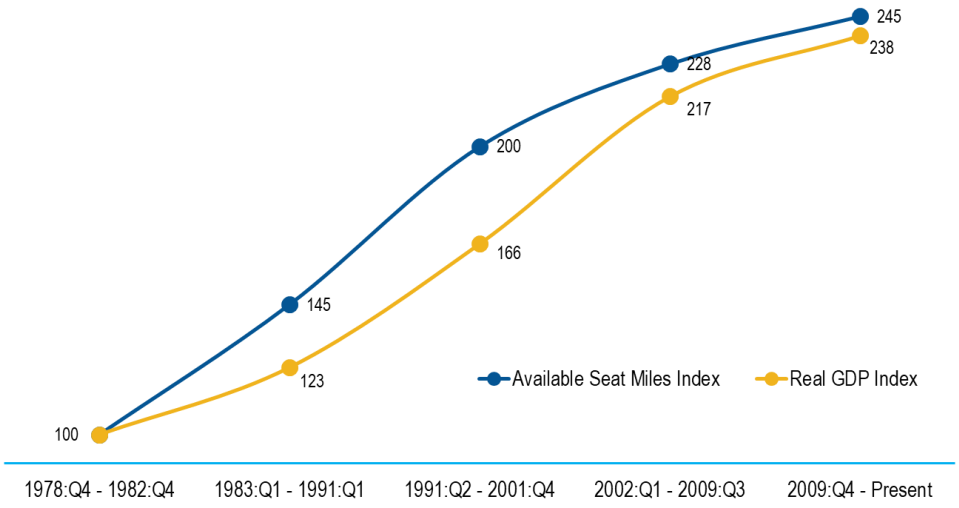


Source: Delta Airport Consultants, Inc.

Over the last two decades, airlines also began to shift their business model from maximizing market share to maximizing earnings. They accomplished this as they exercised more growth discipline. **Figure 2-2** demonstrates this changing strategy. The figure depicts the relationship between the airline industry's overall capacity growth, shown as Available Seat Miles (ASM), and growth in the U.S. economy. Available seat miles and real gross domestic product (GDP) are indexed to the 1978 – 1982 period.

In the 1991 – 2001 period, ASMs had grown by 100 percent as compared to the base period, whereas real GDP had grown by 66 percent. The fact that ASMs were growing much faster than the growth in the economy made it difficult for airlines to price the seats and earn a sufficient profit. As a result, when available seats were significantly higher than growth in the economy, the U.S. airline industry lost billions of dollars. As rates of seat growth have become more aligned with GDP growth, airlines have become more profitable.

Figure 2-2: Relationship Between U.S. Airline Industry Available Seat Miles (ASM) Index and U.S. Real GDP Index, 1978 to Present



Source: U.S. Bureau of Economic Analysis, Seasonally Adjusted Annual Rate, 2009 Chained Dollars.

Airline and airport/community interests have diverged as the industry has evolved and matured. Early airline strategies were to grow market share. To do so, airlines aggressively added seats to the system. In the era immediately following deregulation, airlines sought out cities where they could concentrate service to increase their market share in a "city-pair" (origin city and destination city). The result of this market-focused model meant business development in local communities followed available air service, which acted as a utility to the community.

Under the profit-focused business model more prevalent today, airlines seek out a strong, established local economy that can support air service and therefore maximize the airlines' revenue. Airports still want growth, while airlines are much less aggressive in adding seats as they focus on profits.

Community driven goals of airports are to attract air service that business and leisure passengers in a community demand. In addition, air service brings passengers who spend money on hotels, meals, rental cars, and other items that have an economic impact on that community. With the existence of competition for air service in virtually every region of the U.S., communities must be assertive in their air service development strategies or risk losing service to another market.

2.2 General Air Service Trends

The nation's domestic network carriers have been more disciplined since 2015 in their approach to managing growth, and carriers are increasingly revenue driven. There are also other trends in the U.S. airline industry that have impacted air service at smaller U.S. airports, including those in Georgia. As the Statewide Air Service Study was finalized in summer 2020, the impacts of the COVID-19 pandemic to the commercial air service industry were still being assessed.

2.2.1 Pilot Shortage

In 2013, the Federal Aviation Administration (FAA) increased the qualification requirements for first officers (also known as co-pilots) who fly for U.S. passenger and cargo airlines. FAA now requires first officers to hold an Airline Transport Pilot certificate, requiring 1,500 hours total time as a pilot. Previously, first officers were required to have a commercial pilot certificate, which requires a minimum of 250 hours of flight time.

According to a U.S. Government Accountability Office (GAO) report, airlines will need to hire 1,900 to 4,500 new pilots annually to meet demand.[4] The impact is felt at the regional airline level, due to a decline in qualified entry-level pilots. Entry-level pilots are needed to fill positions vacated by pilots hired by mainline carriers. There are also negative perceptions as they relate to salary and benefits for pilots who fly for regional airlines.

A lack of qualified pilots is a challenge for airlines to retain their service and attract new service. The decline in travelers as a result of the COVID-19 pandemic has temporarily alleviated the shortage; however, if passenger demand for air travel returns and the number of qualified pilots continues to decrease, the weakest performing routes may be the first to lose air service, especially if an alternative airport is within a reasonable driving distance.

2.2.2 Fleet Evolution

There is a national trend among airlines from using smaller (50-seat) aircraft to larger (70-90 seat) aircraft. This trend is especially impactful to nonhub airports. Small regional jets have historically been used to serve the nation's smaller airports. Not all small airports can support larger aircraft with higher seating capacities. The trend toward using larger aircraft may threaten existing and potentially new air service at nonhub airports.

[4] U.S. Government Accountability Office, *Aviation Workforce: Current and Future Availability of Airline Pilots*, GAO-14-232, February 2014, https://www.gao.gov/products/GAO-14-232.

Nonhub airports must generate sufficient demand to support the larger aircraft to maintain service profitability for airlines. As an example, three daily flights of 50-seat aircraft would serve 150 daily passengers, whereas three daily flights by 90-seat aircraft would accommodate 270 passengers. A community may not have the passenger base to justify the same number of flights with larger aircraft. In this case, an airline using larger aircraft might prefer only two daily flights (180 passengers) of 90-seat aircraft.

2.2.3 Airport Infrastructure and Connectivity Constraints

Airport infrastructure, particularly access to large and medium hub airports, is critical for nonhub airports to thrive. Passengers leaving nonhub airports most often fly to a larger airport to "connect" to another flight to reach their final air travel destination. Some large or busy airports lack available gates to absorb more flights. Lack of gate availability can constrain airlines wishing to expand service. In some instances, these constraints have made it more difficult for airlines to establish or expand service at a large or medium hub airport. This, in turn, can then restrict service expansion opportunities for smaller, nonhub airports.

Additionally, there are limited slots available at the busiest airports that are still slot controlled. A "slot" gives an airline permission to land and take off and fixes the number of operations per hour at an airport due to limited airport and airspace capacity. Slot controls have existed in the U.S. in various forms for 50 years. Today, there are three slot-controlled airports in the U.S. – Ronald Reagan Washington National Airport, LaGuardia Airport, and John F. Kennedy International Airport. Georgia nonhub airports benefit from the fact that Hartsfield-Jackson Atlanta International Airport is not slot-controlled.

2.2.4 The Rise of Hub Alternatives for Leisure Markets

Air service from most mainline carriers has evolved into a "hub-and-spoke" model. For this type of operating model, flights from smaller airports are routed through larger connecting hub airports where passengers make connections to another flight to their eventual destination. The hub-and-spoke model is often used versus a point-to-point model, which is used by some LCC and ULCCs that provide flights to leisure-oriented destinations. Hub operations are used to improve airline operating efficiencies.

David Neeleman, founder of JetBlue, announced in February 2020 his plans to launch a new airline operating under the name, "Breeze Airways." Breeze plans to operate smaller Embraer 195 aircraft initially configured with 118 seats. This new carrier will ultimately take delivery of sixty larger Airbus A220 aircraft in 2021. According to the airline's operating certificate application with the USDOT, its initial markets are intended to be underserved city-pairs in large metro areas without nonstop service, situated east of the Mississippi River, and primarily north-south routes.[5] In the same month, Andrew Levy, former chief financial officer (CFO) of United Airlines, announced he had raised sufficient funds to operate a new low-cost, niche airline that will offer nonstop service from secondary markets such as midsize and larger cities to vacation spots in Florida and Las Vegas. Unlike Neeleman's airline, Levy's operating model will focus on shorter-distance routes.[6] The possible impact these new airlines may have on Georgia's nonhub markets is discussed further in **Section 4.5.2** of this report.

2.2.5 "Open Skies" Agreements

Open Skies Agreements (OSAs) minimize governmental regulation on air transport between two countries. Such agreements can enhance international travel by lifting restrictions on the destinations that foreign airlines can access and removing barriers such as regulations and tariffs. While OSAs do not currently impact Georgia nonhub markets and most likely will not increase opportunities for small Georgia airports, OSAs encourage

[5] Ben Mutzabaugh, "JetBlue founder's new U.S. airline now has a name: Breeze Airways," www.thepointsguy.com, posted February 7, 2020, https://thepointsguy.com/news/breeze-airways-david-neeleman-start-up-jetblue-founder/.
[6] Justin Bachman, "Former United CFO Raises $125 Million for Startup U.S. Airline," www.bloomberg.com, posted February 12, 2020, https://www.bloomberg.com/news/articles/2020-02-12/former-united-cfo-raises-125-million-for-startup-u-s-airline.

competition, allowing airlines to expand to new markets and lower the cost of doing business. The U.S. has established more than 100 OSAs worldwide.[7] As an example, despite the fact that the three major U.S. mainline carriers do not operate internationally at Orlando International Airport (MCO), the airport is able to provide international service via foreign airlines to destinations including locations in Europe, Canada, Mexico, and Central and South America, thanks to various OSAs.

Since 2015, American Airlines, Delta Air Lines, and United Airlines have been lobbying against the Gulf carriers (Emirates, Qatar Airways, and Etihad Airways) that operate under OSAs. The Gulf carriers are allegedly receiving subsidies from their governments, which is not permitted in Open Skies agreements.

2.2.6 Volatility of Oil Prices

Price unpredictability has made it difficult for airlines to maintain consistent profitability. This is because airlines cannot guarantee the cost to provide service. The price of oil is highly susceptible to geopolitical and macroeconomic shocks. Even low oil prices are not always a good thing for airlines, as low oil prices can signal weakness in the global economy. A weakening global economy causes airlines to reduce service from their respective hubs, diminishing connectivity levels at nonhub airports that are largely reliant on having the largest number of connecting options possible. Reduced connectivity could adversely impact Georgia's nonhub airports.

2.2.7 The U.S. Economy, Global Trade Tensions, and Wall Street

The airline industry is susceptible to economic disruptions occurring on the national and world stage. Sluggish macroeconomic indicators (such as GDP, unemployment rate, etc.), pandemics, international trade disputes, and little appetite from Wall Street investors for growth in airline service have put additional performance pressure on the airline industry. The effects trickle down to the smallest markets. Many small and nonhub airports competitively provide air service incentives as a cost of entry for new service. Significant airline disruptions and reduction in service can adversely impact small airports such as Georgia's nonhub airports.

2.3 Literature Review Summary

As part of the Statewide Air Service Study, a review of similar, previously completed research related to existing air service support and marketing programs nationwide was conducted. The review generally focuses on literature completed within the last five years. A summary of pertinent information resulting from the review is included in this section. The full Literature Review report is included as **Appendix 1**.

Based on the literature reviewed, the following are major points to be considered for the Georgia Statewide Air Service Study:

- Small communities are facing a challenging environment for attracting and retaining commercial air service. Challenges include airline consolidation, airline fleet changes to larger aircraft, evolving airline business models, inadequate funding to airports, macro-economic influences, and a shortage of qualified pilots.
- In recent years, 32 communities nationwide have lost air service. Airlines' cutting of routes is due to high operating costs, lack of passengers in a small market, and a pilot shortage.
- Since the end of the 2009 recession, airlines revamped their business model to minimize losses by lowering operational costs, eliminating unprofitable routes, and grounding older, less fuel-efficient

[7] CAPA - Center for Aviation, "After the White Paper: Time for the U.S. major airlines and Gulf carriers to kiss and make up," www.centerforaviation.com, posted June 1, 2016, https://centreforaviation.com/analysis/reports/iata-after-the-white-paper-time-for-the-us-major-airlines-and-gulf-carriers-to-kiss-and-make-up-282419.

aircraft. As airlines have cut costs in recent years, many small cities have lost air service. For residents of these communities, catching a flight can require driving for hours to the nearest major hub.

- Strategies for air service development vary based on the strength of a community's economy, its air service profile, recent airline performance, and the level of community engagement. Strategies involve a strong level of community involvement, marketing, generating local support, airline incentive programs, and reducing short-term risks and costs to the air carrier. When considering an air service development program, community leaders should clearly identify the goals of the program. Goals may include retaining existing service, adding service, increasing the frequency of flights, reducing fares, increasing competition, improving service reliability, and increasing aircraft size.
- Many U.S. airports offer an air service incentive program for new service or service to target destinations. The principal incentives that airports use to attract airlines include waived or reduced airport fees; marketing and advertising services; minimum revenue guarantees; travel banks; and direct subsidies.
- Statewide air service incentive programs can be a source of funding in addition to local and federally funded initiatives. A state incentive program can help enhance existing service and promote new service to a community.
- The Airport Cooperative Research Program (ACRP) Research Report 218 indicates that 53 percent of commercial service airports have a marketing assistance incentive program. The report concluded that airport/community-sponsored incentive programs are linked to up to a 10 percent increase in annual departure seats.

3. In-Depth Review of Georgia's Commercial Airports

The COVID-19 virus was significantly impacting airline services during completion of this report. The information, findings and conclusions reported herein are based on conditions that existed prior to any temporary contraction in the airline industry resulting from the virus.

Delta Air Lines operates their primary connecting hub at Hartsfield-Jackson Atlanta International Airport (ATL), providing commercial service to each of the five commercial-service nonhub airports in Georgia and to Savannah/Hilton Head International Airport (SAV). Four of Georgia's nonhub airports have service solely from Delta Air Lines, with service exclusively to Hartsfield-Jackson Atlanta International Airport.

Middle Georgia Regional Airport receives limited commercial air service from Contour Airlines to Baltimore-Washington Thurgood Marshall International Airport (BWI) that is supported by subsidies from the United States Department of Transportation's (USDOT's) Essential Air Service (EAS) program.

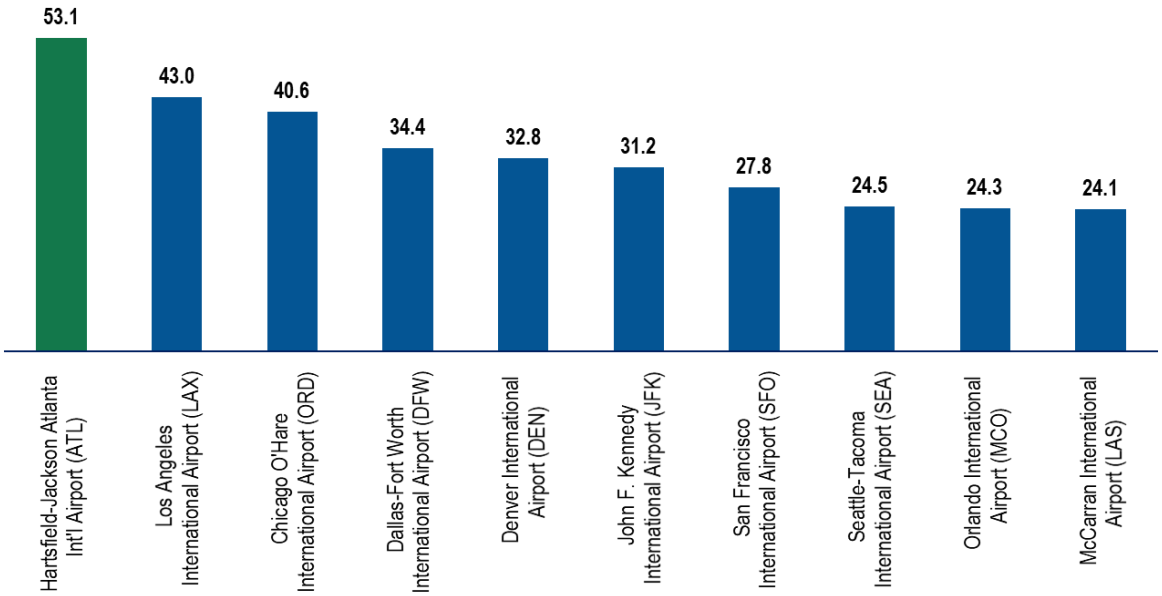
3.1 Hartsfield-Jackson Atlanta International Airport

Delta Air Lines began building its hub at Hartsfield-Jackson Atlanta International Airport before the U.S. airline industry was deregulated in 1978 and before hub-and-spoke systems were being contemplated by other airlines. In a "hub-and-spoke" model, service from smaller airports is routed through a hub where passengers can make connections to their eventual destination (versus a point-to-point model).

Today, Hartsfield-Jackson Atlanta International Airport is consistently ranked by FAA as one of the busiest airports in the U.S. For the 12 months ending in August 2019, the airport enplaned 53.1 million passengers, which is 10 million more than the second busiest airport, Los Angeles International Airport (LAX) (**Figure 3-1**).

Hartsfield-Jackson Atlanta International Airport has service to 166 domestic points and 90 international destinations,[8] underscoring its importance in the global commercial air transportation system.

Figure 3-1: Top Large Hub Airports Ranked by Total Enplanements (Millions)

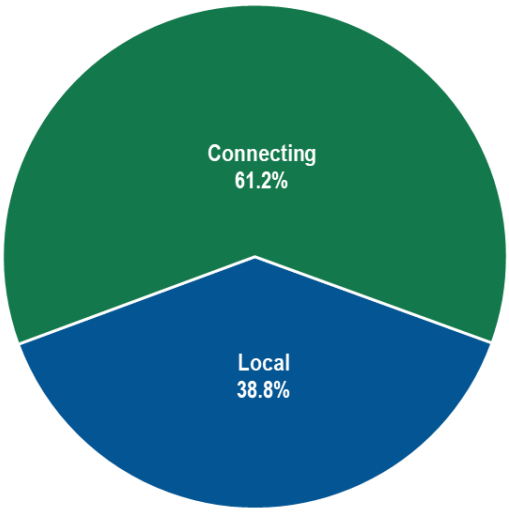


Source: USDOT, T-100 database, Year ended August 2019.

Of the over 53 million enplaned passengers at Hartsfield-Jackson Atlanta International Airport, almost 39 percent begin their journey at the airport ("local" passengers), and the remaining 61 percent of the passengers connect from other points in the U.S. or internationally ("connecting" passengers) (**Figure 3-2**). Those passengers connecting at Hartsfield-Jackson Atlanta International Airport might be going from one domestic point to another domestic point, or from a domestic point to an international point.

[8] Airline schedule data, Airline Data Inc.

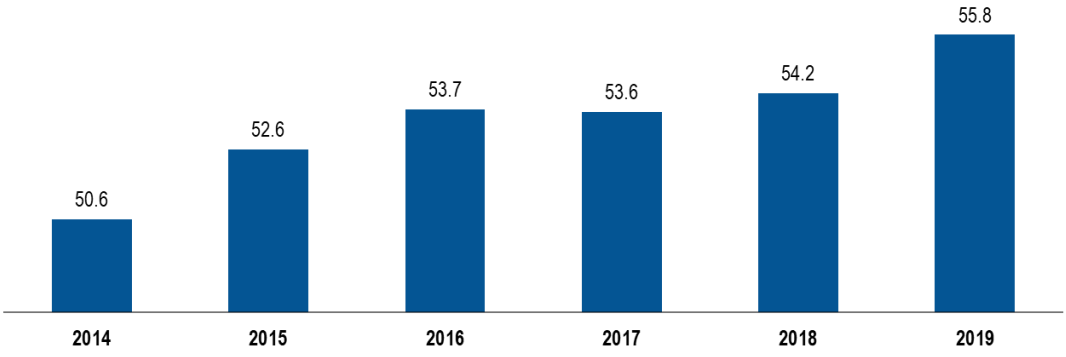
Figure 3-2: Type of Airport Passenger at Hartsfield-Jackson Atlanta International Airport



Sources: U.S. Department of Transportation, Air Carrier Statistics Database (T-100); U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B)

As illustrated in **Figure 3-3**, domestic outbound seat capacity at Hartsfield-Jackson Atlanta International Airport has increased by over five million outbound seats since 2014, an over 10 percent increase. The number of outbound seats in 2019 (55.8 million) is higher than the number of enplanements in 2019 (53.1 million) because not every seat on every flight is filled.

Figure 3-3: Hartsfield-Jackson Atlanta International Airport – Domestic Outbound Seat Capacity (Millions)



Source: Airline Data, Inc., Airline schedule data

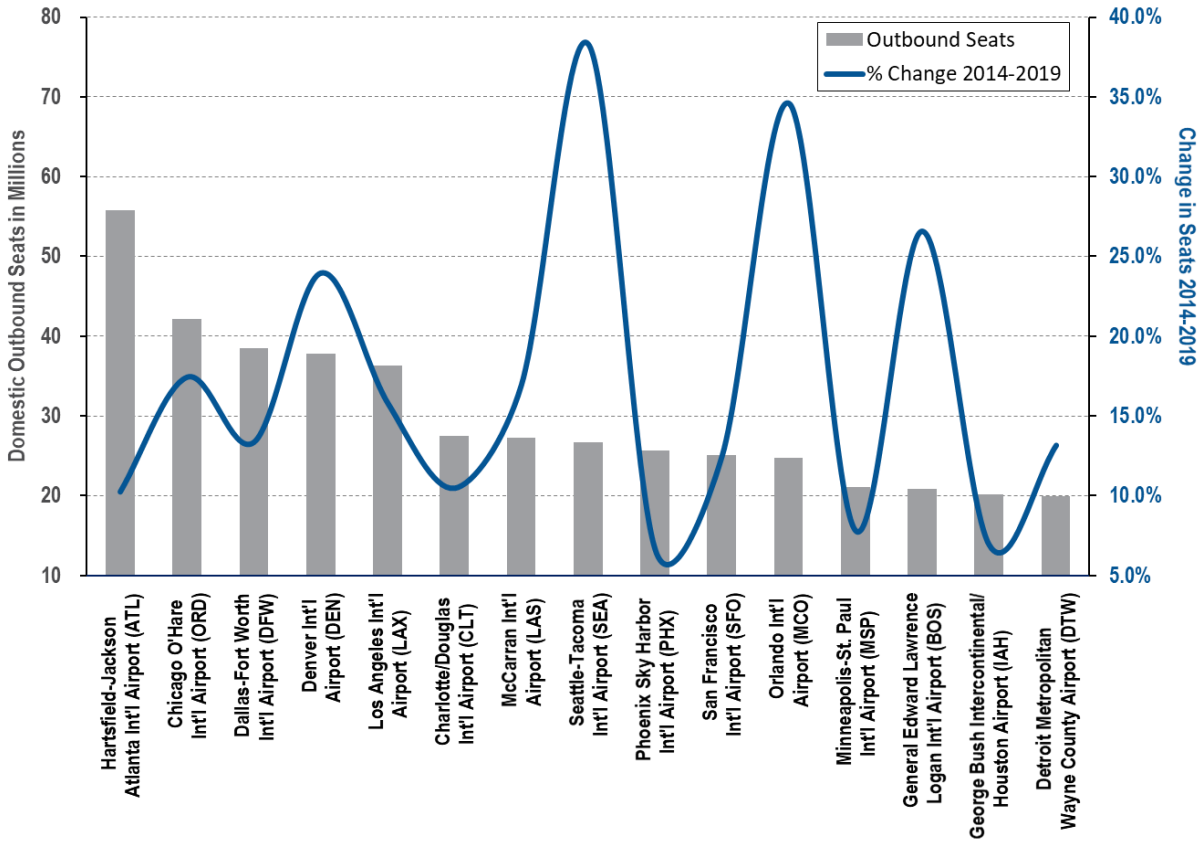
Of the top 15 large hub airports in the U.S., ranked by percent change in domestic outbound seats between 2014 and 2019, Hartsfield-Jackson Atlanta International Airport had a higher-paced increase (around 10 percent) than Phoenix Sky Harbor International Airport (PHX), Minneapolis-St. Paul International Airport (MSP), and George Bush Intercontinental/Houston Airport (IAH), all of which had growth ranging between six percent and eight percent (**Figure 3-4**). The large hub airports with the highest percent change in outbound seats over

this time period are Seattle-Tacoma International Airport (SEA), Orlando International Airport (ORL), and Boston's General Edward Lawrence Logan International Airport (BOS).

Delta Air Lines has recently begun developing its Seattle-Tacoma International Airport hub, which explains the almost 40 percent change in domestic outbound seats at this airport since 2014. Orlando International Airport has seen a recent increase in Low-Cost Carrier (LCC) and Ultra Low-Cost Carrier (ULCC) airlines since 2014, which accounts for much of its 35 percent growth. The Boston area's large technology and biotechnology centers have helped to drive growth in the region, attracting carriers such as JetBlue Airlines in recent years, while Delta Air Lines has also expanded its hub there; therefore, it is not unexpected that General Edward Lawrence Logan International (Boston) would have enjoyed over a 25 percent increase in domestic outbound seats since 2014.

Despite the lower ranking in its *percent change* for domestic outbound seats since 2014, Hartsfield-Jackson Atlanta International Airport served a significantly higher number of outbound seats in 2019 (55.8 million) than its large hub peers. The larger number of outbound seats is based on the higher number of destinations served by this Delta Air Lines hub.

Figure 3-4: Top 15 Large Hub Airports Ranked by Domestic Outbound Seats, 2019



Source: Airline Data, Inc., Airline schedule data

The increase in outbound seats between 2014 and 2019 can be partly explained by the fact that, reflecting national trends, aircraft serving Hartsfield-Jackson Atlanta International Airport are getting larger. In 2014, turbo prop airplanes offering 30 seats accounted for approximately eight percent of departures from Hartsfield-Jackson Atlanta International Airport. In 2019, turboprop aircraft accounted for only one percent of

departures (**Table 3-1**). Similarly, the percentage of departures served by small (50 seat) regional jets has decreased from almost nine percent to about four percent over this time. At the same time, departures by larger aircraft (mainline aircraft, 90 seats or more, and large, 50-76 seat regional jets) have increased from 67.5 percent to almost 75 percent and from almost 16 percent to over 20 percent, respectively. These figures reflect aircraft operated by all airlines serving Hartsfield-Jackson Atlanta International Airport.

Table 3-1: Hartsfield-Jackson Atlanta International Airport – Share of Domestic Departures by Aircraft Type

Aircraft Type	2014	2019
Mainline Jet	67.5%	74.8%
Large Regional Jet	15.6%	20.4%
Small Regional Jet	8.8%	3.8%
Turboprop	8.1%	1.0%

Source: Airline Data, Inc., Airline schedule data

The number of Origin & Destination (O&D) passengers is another important metric for airlines, as it can be a measure of local demand. Enplaned or deplaned passenger counts include both local and connecting traffic. O&D passenger counts, however, are based on the true origin and destination of enplaned and deplaned passengers, whether they fly nonstop or connect to complete a journey.

Of the domestic O&D passengers flying out of Hartsfield-Jackson Atlanta International Airport, Delta Air Lines served over 60 percent of them in 2019, a share which has remained relatively constant since 2014 (**Figure 3-5**). This passenger retainage is especially impressive given the changing competitive landscape at Hartsfield-Jackson Atlanta International Airport since 2014, as more LCCs and ULCCs have entered the market.

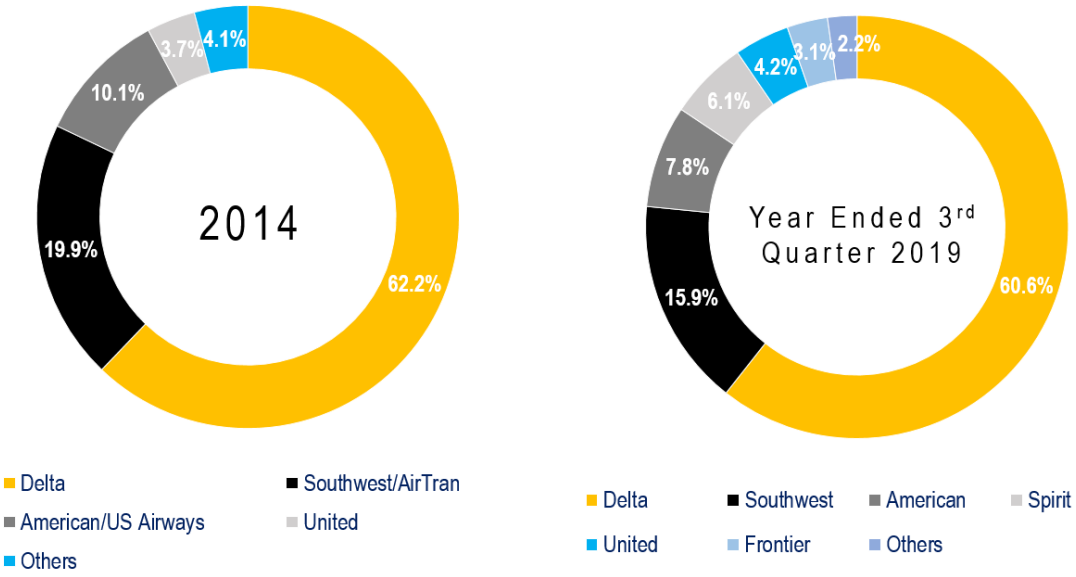
In 2014, the percentage of O&D passengers served by Southwest Airlines and Air Tran Airways combined was almost 20 percent. (Southwest Airlines, an LCC, acquired Air Tran Airways in 2011 with the last revenue flight completed by Air Tran Airways in the fourth quarter of 2014.[9]) In 2019, Southwest Airlines' share of the market had fallen to 16 percent, having reduced a portion of the seat capacity that Air Tran Airways previously operated at Hartsfield-Jackson Atlanta International Airport.

As **Figure 3-5** shows, two ULCCs, Frontier Airlines and Spirit Airlines, have also entered the Hartsfield-Jackson Atlanta International Airport market since 2014, and these two carriers serve a combined total of approximately nine percent of the passengers.

LCC and ULCC airlines employ large aircraft for revenue purposes; therefore, they tend to operate in large metropolitan areas which can support these airplanes. As Hartsfield-Jackson Atlanta International Airport grows, it becomes increasingly attractive to these airlines. Growing service by LCC and ULCC airlines increases the overall competition at the airport. Despite this increased competition, Delta Air Lines has maintained its relatively consistent share of the Hartsfield-Jackson Atlanta International Airport market.

[9] https://www.swamedia.com/releases/release-75d8df205d004870b7109f38651841e0-southwest-airlines-celebrates-final-scheduled-airtran-airways-flight

Figure 3-5: Hartsfield-Jackson Atlanta International Airport – Domestic O&D Passengers Share

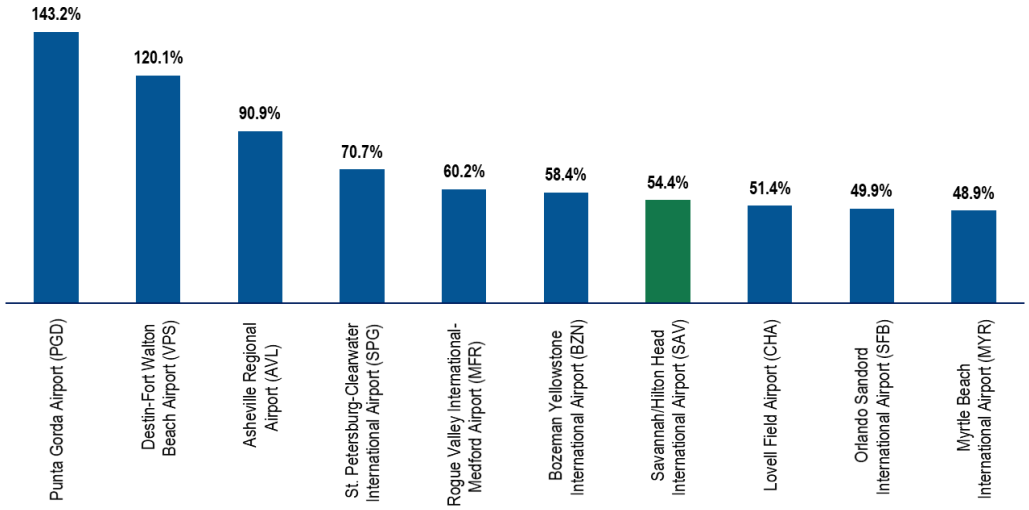


Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B)

3.2 Savannah/Hilton Head International Airport

Savannah/Hilton Head International Airport has seen significant growth in airline service in the past several years. Many of these changes have been triggered by marketing strategies which include promoting the market as a leisure-oriented destination serving a regional catchment area beyond the immediate Savannah area. In addition, the number and types of carriers serving the Savannah market area have undergone a radical change. From 2014 to 2019, enplanements at Savannah/Hilton Head International Airport increased by over 54 percent. This increase led to the airport being ranked seventh among the top 10 U.S. Small Hub airports in terms of percentage change in total enplanements over this period (**Figure 3-6**).

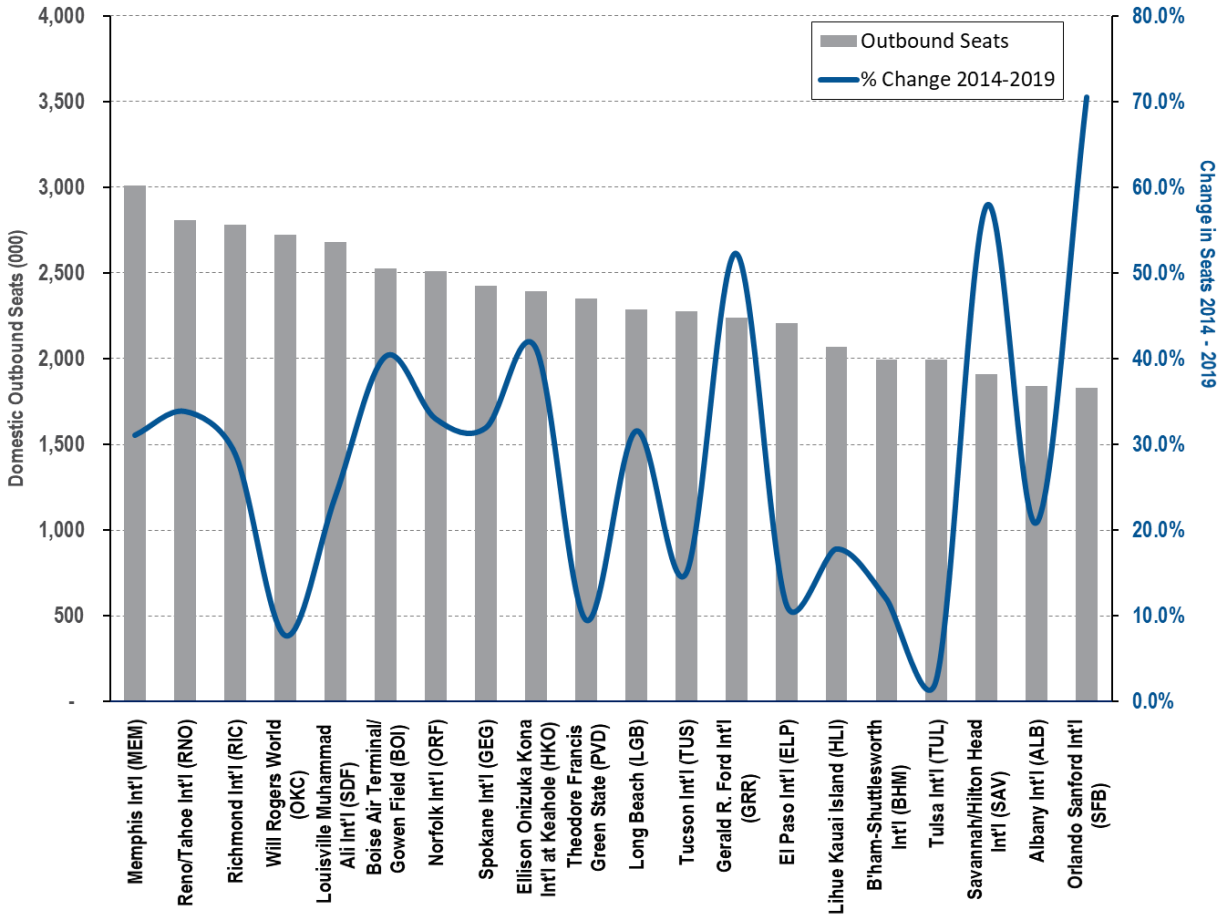
Figure 3-6: Top 10 Small Hub Airports Ranked by Percentage Change in Enplanements, 2014 – YE 2019



YE= Year End
Source: U.S. Department of Transportation, Air Carrier Statistics Database (T-100)

Between 2014 and 2019, the number of domestic outbound seats at Savannah/Hilton Head International Airport grew by nearly 58 percent (**Figure 3-7**). Only Orlando Sanford International Airport saw outbound seats grow at a faster rate during this period. Among the top 20 U.S. small hub airports in 2019, Savannah/Hilton Head International Airport ranked 17th in its number of domestic outbound seats. The airport's 2019 number of outbound seats, 2,000,000, represents an increase of nearly 700,000 outbound seats since 2014.

Figure 3-7: Top 20 Small Hub Airports Ranked by Domestic Outbound Seats, 2019



Source: Airline Data, Inc., Airline schedule data

As with Hartsfield-Jackson Atlanta International Airport, growth for Savannah's commercial airport can be explained partly by the industry trend of airlines replacing their fleets of small, regional jets with larger aircraft. This trend is in response to rising costs for labor and fuel. Larger aircraft can seat more passengers, increasing the passenger revenue per departure while using less fuel as fewer departures are required. In 2014, small regional jets accounted for nearly 38 percent of the commercial aircraft departing from Savannah/Hilton Head International Airport; today, they account for only 17 percent (**Table 3-2**). Large, regional jet aircraft now make up almost 42 percent of aircraft departures from Savannah/Hilton Head International Airport, and mainline jets account for 41 percent of all commercial airport departures. The decrease in departures by small jets could represent a threat to service at nonhub airports with service to Savannah/Hilton Head International Airport because nonhub airports cannot always support service by larger aircraft.

Table 3-2: Savannah/Hilton Head International Airport – Share of Domestic Departures by Aircraft Type

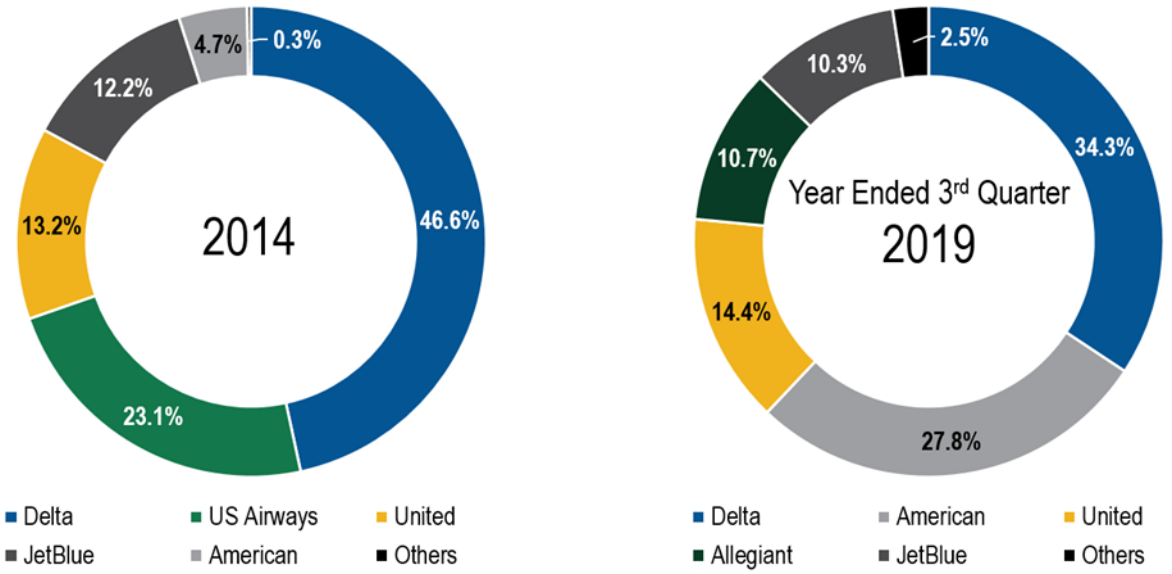
Aircraft Type	2014	2019
Mainline Jet	25.4%	41.1%
Large Regional Jet	36.7%	41.9%
Small Regional Jet	37.9%	17.0%
Turboprop	0.0%	0.0%

Source: Airline Data, Inc., Airline schedule data

A comparison of the makeup of airlines serving the Savannah/Hilton Head International Airport market in 2014 versus 2019 underscores the transformation of the market (**Figure 3-8**). In 2014, Delta Air Lines had a 46.6 percent share of all passengers at Savannah/Hilton Head International Airport. At the same time, JetBlue Airlines was the only LCC providing service. JetBlue served more than 12 percent of the airport's passengers in 2014. By 2019, Delta Air Lines' share of all passengers had fallen to 34 percent, and Allegiant Air, an ULCC, had entered the market. In 2019, together, JetBlue Airlines and Allegiant Air captured almost 20 percent of all passengers.

JetBlue Airlines and Allegiant Air are two low fare airlines with a focus on leisure markets. JetBlue Airlines offers service to Savannah/Hilton Head International Airport from the New York area, underscoring the popularity of the Savannah/Hilton Head-Golden Isles region as a tourist destination for New Yorkers. Allegiant Air's presence at the airport is part of that airline's strategy to serve leisure-oriented markets.

Figure 3-8: Savannah/Hilton Head International Airport – Domestic O&D Passenger Share by Airline, 2014 – 2019



Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B)

3.3 Augusta Regional Airport

The Augusta Regional Airport is a city-owned airport situated in the eastern portion of the state, six miles south of Augusta, in Richmond County, Georgia. As **Table 3-3** indicates, as of year-end 2019, the airport has an average of 15 daily departures to three connecting hubs: Hartsfield-Jackson Atlanta International Airport, Charlotte Douglas International Airport (CLT), and Dallas/Fort Worth International Airport (DFW). Service to Dallas/Fort Worth International Airport was added by American Airlines in 2019. Based on the success of

that route, the airline initiated a second departure on March 3, 2020. American Airlines also added new service on January 7, 2020 from Augusta Regional Airport to Ronald Reagan Washington National Airport (DCA). These two American Airlines flights that began in 2020 have been suspended due to the COVID-19 virus, and it is not certain when they may resume. Data for the analyses in this report does not reflect the new 2020 service additions.

Table 3-3: Air Service at Augusta Regional Airport

Airport	Carrier	Average Daily Departures	Average Daily Outbound Seats
Hartsfield-Jackson Atlanta International (ATL)	Delta Air Lines	8	642
Charlotte Douglas International (CLT)	American Airlines	6	369
Dallas/Fort Worth International (DFW)	American Airlines	1	63
	Total	**15**	**1,074**

Source: Airline Data, Inc., Airline schedule data.

3.3.1 Leakage Analysis – Augusta Regional Airport

60-Mile Catchment Area: Passenger Analysis

The primary catchment area for Augusta Regional Airport (**Figure 3-9**) encompasses a population of over 644,000.[10] For this analysis, the catchment area is composed of zip codes falling within a 60-mile radius of, or roughly a 60-minute drive from, the study airport.

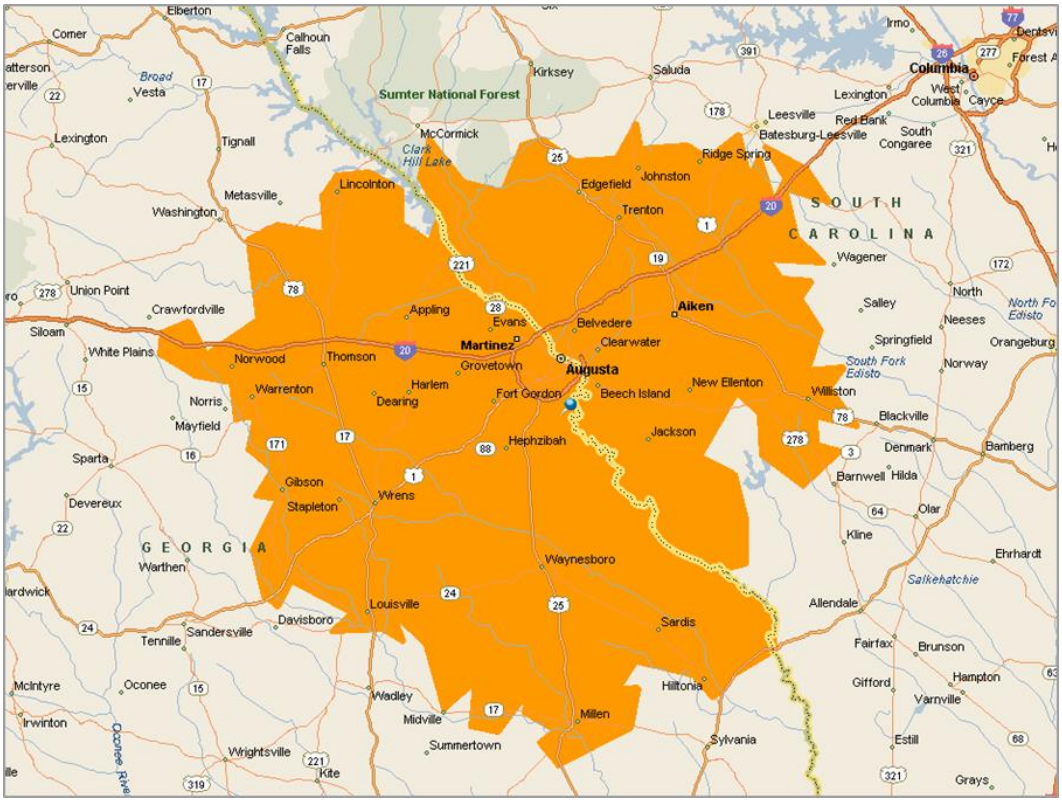
In the 12-month period ending March 2019, there were 561,114 O&D passengers from within the catchment area who used the Augusta Regional Airport.[11] These O&D figures include both enplaned and deplaned passengers. For nonhub airports like Augusta Regional Airport, there is little-to-no connecting traffic; therefore, half the number of O&D passengers is roughly equivalent to the number of enplaned passengers.

An analysis of Airport Catchment Analytics data from Airline Data, Inc., shows that 1,355,692 O&D passengers (enplaned and deplaned) within the catchment area purchased airline tickets in the same 12-month period. This means that the Augusta Regional Airport currently captures 561,114, or 41.4 percent, of the potential 1.36 million air traveler trips (enplaned and deplaned) in its catchment area; the remaining 58.6 percent of the trips occur from another airport.

[10] United States Census Bureau, *2010 Census*. Data has been adjusted using population growth rates from Woods & Poole Economics, Inc.

[11] U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airport Catchment Analytics database.

Figure 3-9: Augusta Regional Airport 60-Mile Catchment Area



Source: Microsoft MapPoint.

Three commercial airports capture the predominant share of "leaked" Augusta Regional Airport passengers: Hartsfield-Jackson Atlanta International Airport, which is 160 miles from Augusta Regional Airport; Charlotte Douglas International Airport, which is 171 miles from Augusta Regional Airport; and Columbia Metropolitan Airport (CAE), which is 73 miles from Augusta Regional Airport (**Figure 3-10**). Each of these three airports has more daily departures than Augusta Regional Airport (**Table 3-4**). Travelers are often willing to drive longer distances to a departure airport with more airline choices, lower fares, and a higher chance to be re-accommodated in the event of a service disruption, thanks to more frequent departures.

As **Table 3-4** illustrates, of the potential passengers within the Augusta Regional Airport catchment area, 35.6 percent flew out of Hartsfield-Jackson Atlanta International Airport, 10 percent flew out of Charlotte Douglas International Airport, and 8.1 percent flew out of Columbia Metropolitan Airport. Other airports that had less than five percent of the passengers from Augusta's catchment area include Greenville-Spartanburg International (GSP, 1.6 percent), Charleston International (CHS, 1.3 percent), and Savannah/Hilton Head International (SAV, 0.8 percent).

Figure 3-10: Augusta Regional Airport – Passenger Leakage to Three Alternative Airports

Source: Bing Maps.

Table 3-4: Augusta Regional Airport – Passenger Traffic to Alternative Airports, YE 1Q19

Nearby Airport	Miles Away	Drive Time	% of Total Catchment Area Traffic	Avg. Daily Domestic Departures	Avg. Daily Domestic Outbound Seats
Hartsfield-Jackson Atlanta International (ATL)	160	2:52	35.6%	1,090	153,309
Charlotte Douglas International (CTL)	171	3:13	10.0%	709	75,561
Columbia Metropolitan (CAE)	73	1:26	8.1%	32	2,259
Augusta Regional (AGS)	**-**	**-**	**41.4%**	**15**	**1,074**

Sources: Airline Data, Inc., Airport Catchment Analytics database; Bing Maps (mileage and drive time).

60-Mile Catchment Area: Passenger Destinations

In addition to identifying the alternative airports being used by passengers in the Augusta Regional Airport catchment area, it is also important to understand the travelers' ultimate destination. When analyzing lost passengers, two of the eight largest destination markets for Augusta travelers are located in the West. This helps to explain why the newly added service to Dallas/Fort Worth International Airport out of the Augusta Regional Airport has been successful.

This type of data is particularly important for an airport to be able to quantify for airline route planners. For example, and as shown in **Table 3-5**, 18,275 (29.7 percent) of O&D passengers within the catchment area who flew to New York LaGuardia (LGA), flew from the Augusta Regional Airport. However, the remainder – which represents over 40,000 passengers and 5.4 percent of the potential Augusta Regional Airport market – used an alternative airport.

Table 3-5: Top 20 Markets in the Augusta Regional Airport 60-Mile Catchment Area Using Alternative Airports, YE2019

Rank	Airport	Augusta Regional Reported O&D Passengers	Augusta Regional Capture Rate	Catchment Area O&D Passengers	Lost Passengers	% of Total Lost Passengers
1	New York LaGuardia (LGA)	18,275	29.7%	61,536	43,261	5.4%
2	Boston (BOS)	12,311	28.8%	42,755	30,444	3.8%
3	Chicago O'Hare (ORD)	15,037	33.8%	44,511	29,474	3.7%
4	Los Angeles (LAX)	11,841	29.7%	39,901	28,060	3.5%
5	New York Newark (EWR)	10,458	27.9%	37,516	27,058	3.4%
6	Orlando (MCO)	9,434	26.3%	35,905	26,471	3.3%
7	Dallas/Fort Worth (DFW)	15,226	37.1%	41,088	25,862	3.3%
8	Fort Lauderdale (FLL)	9,399	26.7%	35,232	25,833	3.3%
9	Denver (DEN)	12,556	33.7%	37,246	24,690	3.1%
10	Las Vegas (LAS)	13,038	36.4%	35,790	22,752	2.9%
11	Philadelphia (PHL)	12,721	37.0%	34,410	21,689	2.7%
12	Washington National (DCA)	19,479	48.3%	40,319	20,840	2.6%
13	New York Kennedy (JFK)	6,053	24.3%	24,954	18,901	2.4%
14	Miami (MIA)	7,411	29.6%	25,053	17,642	2.2%
15	Detroit (DTW)	13,225	44.0%	30,081	16,856	2.1%
16	Baltimore (BWI)	21,564	56.8%	37,949	16,385	2.1%
17	Houston Bush (IAH)	9,018	38.1%	23,639	14,621	1.8%
18	Tampa (TPA)	9,845	40.3%	24,403	14,558	1.8%
19	San Francisco (SFO)	7,416	34.3%	21,605	14,189	1.8%
20	Minneapolis/St. Paul (MSP)	9,565	41.7%	22,936	13,371	1.7%

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airport Catchment Analytics database.

60-Mile Catchment Area: Average Fare Comparison

Price is one of the most important determinants for the consumer choosing which airport to use. When comparing average fares at the Augusta Regional Airport to those at the top three alternative commercial airports used by passengers from within the study airport's catchment area, fares at Augusta Regional Airport are higher on average than those available at Hartsfield-Jackson Atlanta International Airport, generally comparable to those at Charlotte Douglas International Airport, and slightly lower than those at Columbia Metropolitan Airport (**Table 3-6**).

Table 3-6: Augusta Regional Airport – Average One-Way Fare Comparison

		Average One-Way Fare				Fare Ratio – Augusta Regional Versus.		
Rank	Airport	Augusta (AGS)	Atlanta (ATL)	Charlotte (CLT)	Columbia (CAE)	Atlanta (ATL)	Charlotte (CLT)	Columbia (CAE)
1	New York LaGuardia (LGA)	$175	$154	$129	$166	113%	135%	105%
2	Boston (BOS)	$182	$110	$156	$181	166%	117%	100%
3	Chicago O'Hare (ORD)	$177	$135	$197	$230	131%	90%	77%
4	Los Angeles (LAX)	$259	$218	$293	$257	119%	88%	101%
5	New York Newark (EWR)	$196	$171	$137	$207	114%	144%	95%
6	Orlando (MCO)	$168	$97	$158	$210	173%	106%	80%

		Average One-Way Fare				Fare Ratio – Augusta Regional Versus.		
Rank	Airport	Augusta (AGS)	Atlanta (ATL)	Charlotte (CLT)	Columbia (CAE)	Atlanta (ATL)	Charlotte (CLT)	Columbia (CAE)
7	Dallas/Fort Worth (DFW)	$217	$144	$240	$240	151%	90%	90%
8	Fort Lauderdale (FLL)	$148	$93	$214	$199	159%	69%	75%
9	Denver (DEN)	$207	$154	$186	$262	134%	111%	79%
10	Las Vegas (LAS)	$256	$179	$259	$252	143%	99%	102%
11	Philadelphia (PHL)	$188	$142	$192	$252	132%	98%	75%
12	Washington National (DCA)	$187	$168	$184	$181	112%	102%	103%
13	New York Kennedy (JFK)	$160	$152	$121	$184	106%	133%	87%
14	Miami (MIA)	$173	$121	$223	$217	144%	78%	80%
15	Detroit (DTW)	$176	$133	$202	$211	133%	87%	84%

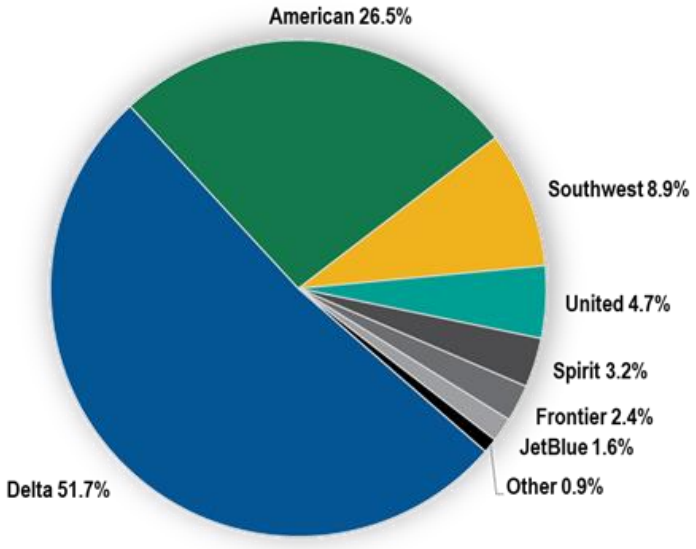
Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B)

For example, Augusta Regional Airport's average one-way fare to Chicago is $177, which is 31 percent higher than the average fare from Hartsfield-Jackson Atlanta International Airport; 10 percent lower than the average fare from Charlotte Douglas International Airport; and 23 percent less than the average fare from Columbia Metropolitan Airport.

60-Mile Catchment Area: Leakage by Air Carrier

Analyzing the "leaked" passengers by airline, Delta Air Lines and American Airlines capture nearly 80 percent of the Augusta Regional Airport catchment area passengers. This includes passengers using their service out of the Augusta Regional Airport, as well as passengers flying out of alternative airports also served by Delta Air Lines and American Airlines. The two largest carriers not serving Augusta Regional Airport but capturing passengers from within the study airport's catchment area are Southwest Airlines which serves almost nine percent of the Augusta Regional Airport market's catchment area passengers, and United Airlines which serves almost five percent of those leaked passengers at other airports (**Figure 3-11**).

Figure 3-11: Augusta Regional Airport Catchment Area – Capture by Air Carrier



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airport Catchment Analytics database.

30-Mile Catchment Area: Passenger Analysis

As mentioned previously, the 60-mile catchment area for the Augusta Regional Airport extends into South Carolina, and Columbia Metropolitan Airport captures approximately eight percent of the passenger traffic within the catchment area. Because of its proximity to Columbia Metropolitan Airport, this study provides an additional leakage analysis of the Augusta Regional Airport market using an approximate 30-mile radius catchment area (**Figure 3-12**). A 30-mile catchment area for the Augusta Regional Airport encompasses a population of over 373,000.[12]

Figure 3-12: Augusta Regional Airport 30-Mile Catchment Area

Source: Microsoft MapPoint.

In the 12-month period ending March 2019 (YE 1Q19), there were 1,066,644 O&D passengers (enplaned and deplaned) within the Augusta Regional Airport 30-mile catchment area who purchased airline tickets. Augusta Regional Airport captured 52.6 percent of the passenger traffic within the 30-mile catchment area. Similar to the breakdown of potential passengers within the 60-mile catchment area, 34.8 percent flew out of Hartsfield-Jackson Atlanta International Airport, 5.9 percent flew out of Charlotte Douglas International Airport, and 3.8 percent flew out of Columbia Metropolitan Airport.[13]

30-Mile Catchment Area: Passenger Destination

When analyzing the study airport's lost passengers from the 30-mile catchment area, New York continued to rank first for markets using an airport other than the Augusta Regional Airport (**Table 3-7**).

[12] 2010 Census, United States Census Bureau. Data has been adjusted using population growth rates from Woods & Poole Economics, Inc.

[13] Airline Data, Inc., Airport Catchment Analytics database.

Table 3-7: Top Five Markets in the Augusta Regional Airport 30-Mile Catchment Area Using Alternative Airports, YE 1Q19

Rank	Airport	Augusta Regional Reported O&D Passengers	Augusta Regional Capture Rate	Catchment Area O&D Passengers	Lost Passengers	% of Total Lost Passengers
1	New York LaGuardia (LGA)	18,275	40.0%	45,722	27,447	5.4%
2	Boston (BOS)	12,311	38.1%	32,289	19,978	4.0%
3	Chicago O'Hare (ORD)	15,037	44.5%	33,778	18,741	3.7%
4	Los Angeles (LAX)	11,841	39.0%	30,367	18,526	3.7%
5	New York Newark (EWR)	10,458	37.2%	28,107	17,649	3.5%

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

The top five markets that passengers from the study airport's 30-mile catchment area fly to when they use Hartsfield-Jackson Atlanta International Airport, Charlotte Douglas International Airport or Columbia Metropolitan Airport are listed in **Table 3-8**. The greatest number of passengers lost to Hartsfield-Jackson Atlanta Airport flew to New York as opposed to Los Angeles, which ranked higher in the 60-mile catchment area analysis. New York remained the top market for passengers using Charlotte Douglas International Airport. For catchment area passengers flying from Columbia Metropolitan Airport, Washington, D.C. continued to be the most popular market.

Table 3-8: Passenger Loss Within the Augusta Regional Airport 30-Mile Catchment Area

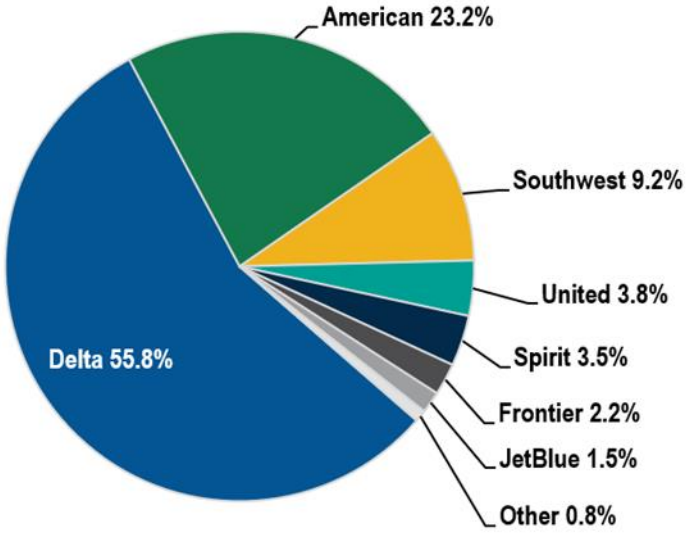
Competing Airport	Rank	Airport Market	Lost Passengers	% of Total Lost Passengers
Hartsfield-Jackson Atlanta International Airport	**1**	**New York LaGuardia (LGA)**	**17,835**	**4.8%**
	2	Los Angeles (LAX)	16,633	4.5%
	3	Fort Lauderdale (FLL)	15,713	4.2%
	4	Orlando (MCO)	14,557	3.9%
	5	Chicago O'Hare (ORD)	13,620	3.7%
		All Markets	**371,413**	
Charlotte Douglas International Airport	**1**	**New York Newark (EWR)**	**6,016**	**9.6%**
	2	New York LaGuardia (LGA)	5,898	9.4%
	3	New York Kennedy (JFK)	3,742	6.0%
	4	Boston (BOS)	3,571	5.7%
	5	Chicago O'Hare (ORD)	2,380	3.8%
		All Markets	**62,748**	
Columbia Metropolitan Airport	**1**	**Washington National (DCA)**	**3,997**	**9.8%**
	2	New York LaGuardia (LGA)	2,681	6.6%
	3	Philadelphia (PHL)	2,315	5.7%
	4	Chicago O'Hare (ORD)	1,559	3.8%
	5	Dallas/Fort Worth (DFW)	1,545	3.8%
		All Markets	**40,609**	

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

30-Mile Catchment Area: Leakage by Air Carrier

Within the 30-mile catchment area, Delta Air Lines captured 55.8 percent of the study airport's market. American Airlines was second, serving over 23 percent of the Augusta Regional Airport's catchment area passengers. Southwest Airlines followed third, capturing over nine percent of the lost passengers (**Figure 3-13**).

Figure 3-13: Augusta Regional Airport 30-Mile Catchment Area – Capture by Air Carrier



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

3.3.2 Benchmarking Analysis – Augusta Regional Airport

As another element of the Statewide Air Service Study, a benchmarking study was prepared for select commercial service airports in Georgia. The purpose of a benchmarking study is to compare the performance of one airport to another similarly situated airport. For the purposes of this analysis, "similarly situated" refers to the proximity of the study airport to a large hub airport, which is a larger airport that typically offers significantly more variation of service and frequency of departures than smaller airports can offer. Data for the benchmarking analysis does not reflect the new 2020 service additions by American Airlines.

Selection of Peer Airports

Six airports were selected for comparison as peer airports for Augusta Regional Airport following the process described above. These peer airports include:

- Wilkes-Barre Scranton International Airport (AVP), Scranton, PA
- Meadows Field Airport (BFL), Bakersfield, CA
- Fort Wayne International Airport (FWA), Fort Wayne, IN
- Corpus Christi International Airport (CRP), Corpus Christi, TX
- Capital Region International Airport (LAN), Lansing, MI
- Orlando Melbourne International Airport (MLB), Melbourne, FL

Study Airport and Peer Group Comparison – Economic and Demographic Indicators

The Augusta Regional Airport was compared to the six peer airports using four economic and demographic indicators: population, employment, gross regional product (GRP), and income per capita. These indicators create a collective story about the study airport's market. They can also be used to highlight the market's strengths as well as to identify potential weaknesses that may need further explanation to airlines considering new service.

Demographic and economic data was sourced from the 2010 U.S. Census and then extrapolated using forecast rates generated by Woods and Poole Economics, Inc. Data used in the analysis was for the city or county where the airport is located.

The seven airports were ranked in order from one (high score) to seven (low score) based on the economic and demographic indicators. For the purposes of the ranking exercise, each of the metrics was weighted equally (meaning, each metric was considered as important as another). As **Table 3-9** indicates, Augusta Regional Airport's market compares favorably – a ranking of three or better – for each indicator category, except for 2019 Income per Capita.

Table 3-9: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators

Base Airport	2019 Population	2019 Gross Regional Product	2019 Employment	2019 Income per Capita
Augusta Regional (AGS)	**2**	**2**	**3**	**5**
Wilkes-Barre Scranton International (AVP)	4	5	2	2
Meadows Field (BFL)	1	1	1	7
Corpus Christi International (CRP)	6	3	4	4
Fort Wayne International (FWA)	7	7	7	1
Capital Region International (LAN)	5	4	5	6
Orlando Melbourne International (MLB)	3	6	6	3
	1 = High Score; 7 = Low Score			

Source: Woods & Poole Economics, Inc., 2019

Study Airport and Peer Group Comparison – Key Demand, Key Supply, and Key Market Output and Connectivity Indicators

After the peer airports and the study airport were compared by demographic and economic indicators, they were then measured by key performance indicators related to air service.

Key Demand Performance Indicators

Key Demand Performance Indicators are important criteria for airlines and are associated with passenger demand at a particular airport and the profitability of its routes.

- *Average O&D Passenger Traffic per Outbound Seat*: This is the total number of O&D trips (arrivals and departures) divided by the number of outbound seats available. While the number of passenger enplanements is an important metric for airports, airlines look at the number of O&D passengers as a measure of local demand. Unlike enplaned/deplaned passenger counts, which include both local and connecting traffic, O&D figures are based on passenger itineraries which list true origins and destinations, whether the passenger flies nonstop or connects to complete the journey.

- *Average O&D Passenger Revenue per Aircraft Departure*: This indicator measures the revenue associated with an aircraft departure. It is calculated by multiplying the number of O&D passengers with the average one-way fare in each respective city-pair (origin and destination city).

Key Supply Performance Indicators

Key Supply Performance Indicators are associated with airline management of passenger seat capacity at a particular airport and the market's response in turn.

- *Average Number of Outbound Seats per Aircraft Departure*: Increases in the number of outbound seats typically indicate a trend toward the use of larger aircraft in a market.
- *Average Passenger Load Factor*: Load factor, defined by the FAA as the percentage of available seats that are filled with passengers, is a measure of passenger utilization. It is an important data point for airlines when deciding whether to increase the size of aircraft, add new service, or even reduce service.

Key Market Output and Connectivity Indicators

Key Market Output and Connectivity indicators relate to the passengers associated with the airport's market utilizing the local airport.

- *Average O&D Passenger Traffic per Capita*: Also known as "propensity to fly," Average O&D Passenger Traffic per Capita is the average number of trips taken by those who live in the airport's immediate market or metropolitan area (O&D passenger traffic divided by the population within the market). Airlines often use this metric to determine the level of future demand for travel. Propensity to fly can also inform decision-makers about what kind of service to pursue, or what other hubs in the system might better satisfy the local market's demand for different destinations.
- *Total Market Connectivity*: Total Market Connectivity describes an airport's connectivity (number of flights) to other larger airports in the system. It is often the critical variable in explaining a passenger's decision to use the local airport versus selecting an alternative airport. Connectivity for nonhub airports is particularly important since access to larger airports can provide passengers with a variety of destination choices.

Augusta Regional Airport's Ranking by Key Performance Indicators

After analyzing each indicator separately, Augusta Regional Airport's standing as compared to the six peer airports is summarized in **Table 3-10**. Rankings range from first (1) to seventh (7), with seven being the lowest ranking score.

Table 3-10: Augusta Regional Airport's Ranking by Key Performance Indicators

	Performance Metric	2014	2019
Key Demand	Average Origin & Destination Passenger Traffic per Outbound Seat	2	1
	Average Origin & Destination Passenger Revenue per Aircraft Departure	3	3
Key Supply	Average Number of Outbound Seats per Aircraft Departure	4	3
	Average Passenger Load Factor	4	4
Key Market	Average Origin & Destination Traffic per Capita/Propensity to Fly	3	3
	Total Market Connectivity/Airport Connectivity Quality Index (ACQI)	4	3
	Aggregate Rank	**3.3**	**2.8**

Source: Delta Airport Consultants, Inc., Analysis.

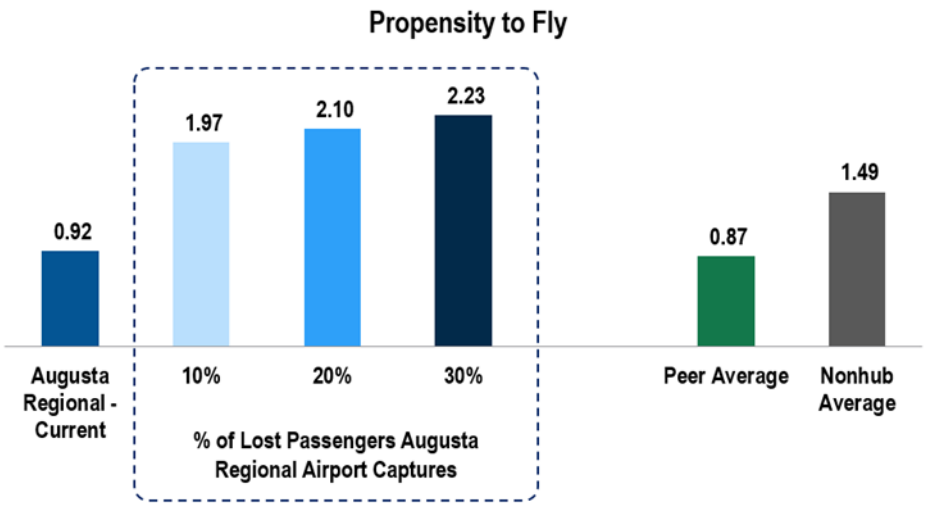
Among the seven airports, the Augusta Regional Airport's average ranking is 2.8, which is a modest improvement over its 2014 ranking and likely a reflection of the service added in 2019 by American Airlines. The airport's total aggregate ranking should continue to improve due to increased connectivity and departure options if the additional service implemented in early 2020 resumes after the COVID-19 pandemic ends.

3.3.3 Sensitivity Analysis – Augusta Regional Airport

Figure 3-14 depicts the outcome of a sensitivity analysis that considers the results of the separate benchmarking and leakage analysis studies conducted for Augusta Regional Airport as part of the Georgia Statewide Air Service Study. As noted previously, the leakage analysis determined that the study airport is capturing approximately 41.4 percent (561,114 passenger trips) of the potential O&D passenger demand within its 60-mile catchment area, while the annual demand is 1.36 million passenger trips.

The sensitivity analysis considers a market's propensity to fly and presents several possible scenarios in which the airport might capture a higher percentage of its current passenger leakage through improved service. As shown, if the Augusta Regional Airport were to capture just an additional 10 percent of its passenger leakage, then its propensity to fly would be even greater than the U.S. nonhub average. An improved propensity to fly rating can be expected if the new 2020 service from American Airlines resumes after the COVID-19 pandemic ends.

Figure 3-14: Augusta Regional Airport – Sensitivity Analysis



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airline schedule data; Woods & Poole Economics, Inc., 2019.

3.3.4 Summary of Leakage and Benchmarking Findings for Augusta Regional Airport

The strong economic and demographic characteristics of the Augusta Regional Airport's market area suggest continued strength in demand for airline service. The market's strength is evidenced by both an average O&D passenger revenue per aircraft departure and a high load factor (82 percent) that exceed peer and national nonhub airport averages.

The Augusta Regional Airport has demonstrated it can support two carriers and that new service to a major connecting hub other than Hartsfield-Jackson Atlanta International Airport can compete with Delta Air Lines' connections from its Atlanta hub.

Many travelers that do not choose the Augusta Regional Airport are driving to Atlanta and Charlotte, both large hubs, to fly to their destinations. The Augusta Regional Airport currently captures 41.4 percent of the potential O&D passenger demand within its 60-mile catchment area, and 52.6 percent within a 30-mile area.

Advertising existing and additional service to potential passengers will be important for the Augusta Regional Airport to continue its path toward supporting air service for its community.

In the future, airport leadership may wish to consider improving access to communities not served directly through Augusta's current hub connections. A possible hub for better access to midwestern cities is Chicago. The number of new service points from Chicago O'Hare International Airport on either United Airlines or American Airlines (for example, to Hector International Airport in Fargo, North Dakota; Rapid City Regional Airport, South Dakota; and Lincoln Airport, Nebraska) makes this hub ideally suited for opening the Augusta Regional Airport to new markets not currently served via Hartsfield-Jackson Atlanta International Airport, Dallas/Fort Worth International Airport, and Ronald Reagan Washington National Airport.

3.4 Brunswick Golden Isles Airport

Brunswick Golden Isles Airport is a county-owned airport situated in the eastern portion of the state, six miles north of Brunswick, in Glynn County, Georgia. As **Table 3-11** indicates, the study airport has an average of three daily departures to Hartsfield-Jackson Atlanta International Airport by Delta Air Lines. Delta Air Lines announced plans to add a fourth scheduled daily departure in May 2020.[14] However, this plan is uncertain due to impacts on the airline industry from the COVID-19 pandemic.

Table 3-11: Air Service at Brunswick Golden Isles Airport

Airport	Carrier	Average Daily Departures	Average Daily Outbound Seats
Hartsfield-Jackson Atlanta International (ATL)	Delta Air Lines	3	142

Source: Airline Data, Inc., Airline Schedule Data.

3.4.1 Leakage Analysis – Brunswick Golden Isles Airport

60-Mile Catchment Area: Passenger Analysis

The primary catchment area for Brunswick Golden Isles Airport (**Figure 3-15**) encompasses a population of over 238,000.[15] For this analysis, the catchment area is composed of zip codes falling within a 60-mile radius of, or roughly a 60-minute drive from, the study airport. There are overlaps of the catchment area with Savannah/Hilton Head International Airport (SAV) to the north and Jacksonville International Airport (JAX) to the south.

In the 12-month period ending March 2019, there were 75,996 O&D passengers from within the catchment area who used the Brunswick Golden Isles Airport.[16] O&D figures include both enplaned and deplaned

[14] Elizabeth Wolf, "Delta increases service between Atlanta, key regional airports throughout Georgia," Delta News Hub, Delta Airlines, Inc., posted December 8, 2019, https://news.delta.com/delta-increases-service-between-atlanta-key-regional-airports-throughout-georgia.

[15] 2010 Census, United States Census Bureau. Data has been adjusted using growth rates from Woods & Poole Economics, Inc.

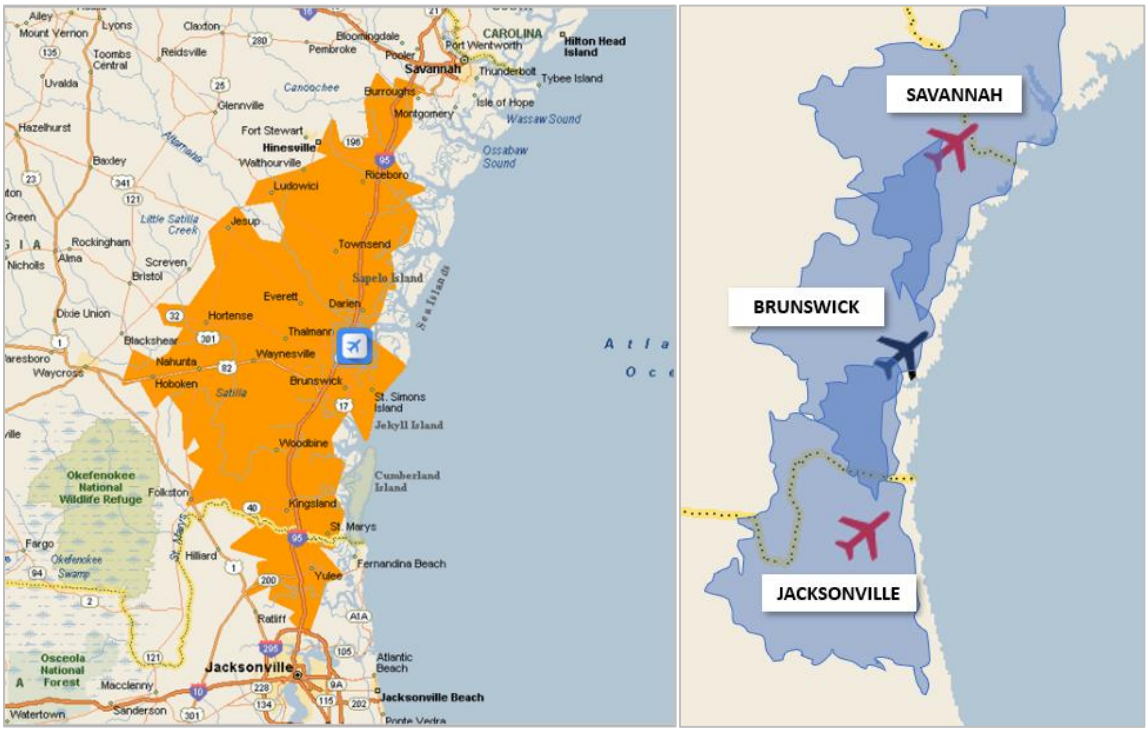
[16] U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airport Catchment Analytics database.

passengers. For nonhub airports like Brunswick Golden Isles Airport, there is little-to-no connecting traffic; therefore, half the number of O&D passengers is roughly equivalent to the number of enplaned passengers.

An analysis of Airport Catchment Analytics data from Airline Data, Inc., shows that 1,576,103 O&D passengers (enplaned and deplaned) within the 60-mile catchment area purchased airline tickets in the same 12-month period. This means that the Brunswick Golden Isles Airport currently captures 75,996, or 4.8 percent, of the potential 1.6 million air traveler trips in its catchment area; the remaining 95.2 percent of the trips occur from another airport.

On a positive note, this demonstrates there is opportunity available for Delta Air Lines' planned increase in daily service at Brunswick Golden Isles Airport, if the service becomes a reality after the COVID-19 pandemic ends.

Figure 3-15: Brunswick Golden Isles Airport Catchment Area – Two Views



Source: Microsoft MapPoint.

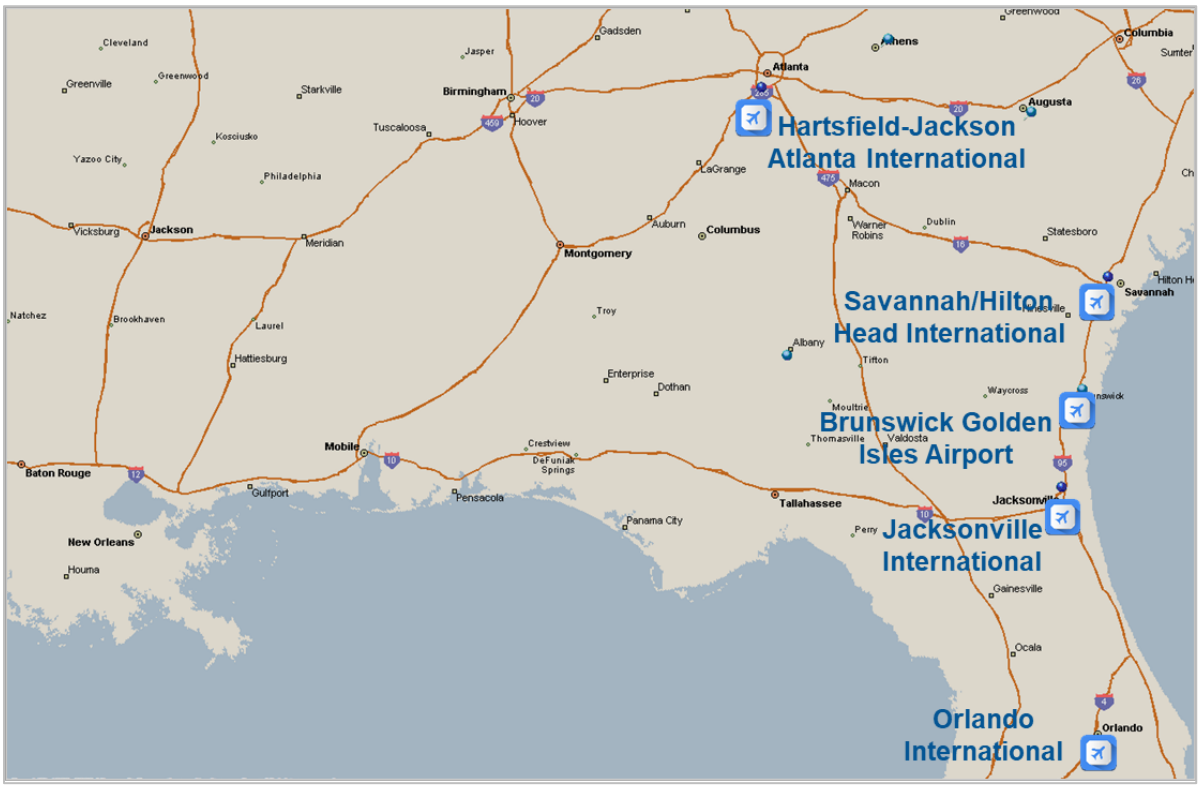
Four commercial airports capture the predominant share of lost Brunswick Golden Isles Airport passengers: Jacksonville International Airport, which is 62 miles from the study airport; Savannah/Hilton Head International Airport, which is 71 miles from the study airport; Orlando International Airport (MCO), which is 230 miles from the study airport; and, Hartsfield-Jackson Atlanta International Airport, which is 300 miles from the study airport (**Figure 3-16**). Each of these airports has significantly more scheduled airline service than Brunswick Golden Isles Airport (**Table 3-12**).

Highways are typically the first access point to the air transportation grid for travelers. With so many passengers willing to drive longer distances to an airport with more service and lower fares, airports in Florida are increasingly winning traffic from Georgia airports, including the Brunswick Golden Isles Airport.

Of the potential passengers within the Brunswick Golden Isles Airport catchment area, 50.7 percent flew out of Jacksonville International Airport, 27.3 percent flew out of Savannah/Hilton Head International Airport,

6.8 percent flew out of Orlando International Airport, and 5.9 percent flew out of Hartsfield-Jackson Atlanta International Airport (**Table 3-12**). Several other airports have one or less than one percent each of the passengers from Brunswick's catchment area, including Tampa International (1.0 percent), Charleston International (0.9 percent), Orlando Sanford International (0.9 percent), and Charlotte Douglas International (0.4 percent).

Figure 3-16: Brunswick Golden Isles Airport – Passenger Leakage to Alternative Airports



Source: Bing Maps.

Table 3-12: Passenger Traffic to Alternative Airports, YE 1Q19

Nearby Airport	Miles Away	Drive Time	% of Total Catchment Area Traffic	Avg. Daily Domestic Departures	Avg. Daily Domestic Outbound Seats
Jacksonville International (JAX)	62	1:06	50.7%	98	11,915
Savannah/Hilton Head International (SAV)	71	1:14	27.3%	52	5,198
Orlando International (MCO)	230	4:09	6.8%	401	67,756
Hartsfield-Jackson Atlanta International (ATL)	300	5:11	5.9%	1,090	153,309
Brunswick Golden Isles Airport (BQK)	-	-	**4.8%**	**3**	**142**

Sources: Airport Data, Inc., Airport Catchment Analytics database; Bing Maps (mileage and drive time).

60-Mile Catchment Area: Passenger Destinations

In addition to identifying the alternative airports being used by passengers from the Brunswick Golden Isles Airport catchment area, it is also important to understand the travelers' ultimate destination. When analyzing lost passengers, the top three largest markets are all located in the Northeast.

This type of data is particularly important for an airport to be able to quantify for airline route planners. For example, and as shown in **Table 3-13**, 392 (0.5 percent) of passengers within the catchment area who flew to New York's John F. Kennedy International Airport (JFK), flew from Brunswick Golden Isles Airport. However, the remainder – which represents over 71,000 passengers and almost five percent of the potential passengers for the Brunswick Golden Isles Airport – used an alternative airport.

Table 3-13: Top 20 Markets in Brunswick Golden Isles Airport 60-Mile Catchment Area Using Alternative Airports, YE 1Q19

Rank	Airport	Brunswick Golden Isles Reported O&D Passengers	Brunswick Golden Isles Capture Rate	Catchment Area O&D Passengers	Lost Passengers	% of Total Lost Passengers
1	New York Kennedy (JFK)	392	0.5%	71,784	71,392	4.8%
2	New York Newark (EWR)	689	1.1%	61,942	61,253	4.1%
3	Boston (BOS)	731	1.2%	60,134	59,403	4.0%
4	Chicago O'Hare (ORD)	849	1.5%	54,981	54,132	3.6%
5	Philadelphia (PHL)	999	2.1%	46,874	45,875	3.1%
6	Atlanta (ATL)	16,440	27.8%	59,187	42,747	2.8%
7	Washington National (DCA)	2,102	4.7%	44,722	42,620	2.8%
8	Denver (DEN)	1,246	3.0%	42,011	40,765	2.7%
9	New York LaGuardia (LGA)	1,040	2.5%	41,647	40,607	2.7%
10	Los Angeles (LAX)	1,686	4.1%	41,290	39,604	2.6%
11	Dallas/Fort Worth (DFW)	1,129	2.9%	39,495	38,366	2.6%
12	Baltimore (BWI)	821	2.1%	38,455	37,634	2.5%
13	Detroit (DTW)	1,226	3.6%	34,045	32,819	2.2%
14	Las Vegas (LAS)	973	3.3%	29,302	28,329	1.9%
15	Minneapolis/St. Paul (MSP)	926	3.2%	29,072	28,146	1.9%
16	Fort Lauderdale (FLL)	296	1.1%	27,931	27,635	1.8%
17	Nashville (BNA)	1,290	4.6%	28,154	26,864	1.8%
18	San Juan, PR (SJU)	124	0.5%	23,691	23,567	1.6%
19	Cincinnati (CVG)	958	4.1%	23,131	22,173	1.5%
20	Houston Bush (IAH)	532	2.4%	21,818	21,286	1.4%

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

60-Mile Catchment Area: Average Fare Comparison

As noted previously, price is one of the most important determinants for the consumer choosing which airport to use. When comparing average fares at Brunswick Golden Isles Airport to those at the top three competing commercial airports, fares at Brunswick Golden Isles Airport are consistently higher on average than those available at Jacksonville International Airport, Savannah/Hilton Head International Airport, and Orlando International Airport (**Table 3-14**).

Table 3-14: Brunswick Golden Isles Airport – Average One-Way Fare Comparison

		Average One-Way Fare				Fare Ratio – Brunswick Golden Isles Versus		
Rank	Airport	Brunswick (BQK)	Jacksonville (JAX)	Savannah (SAV)	Orlando (MCO)	Jacksonville (JAX)	Savannah (SAV)	Orlando (MCO)
1	New York Kennedy (JFK)	$287	$136	$117	$137	212%	246%	210%

		Average One-Way Fare				Fare Ratio – Brunswick Golden Isles Versus		
Rank	Airport	Brunswick (BQK)	Jacksonville (JAX)	Savannah (SAV)	Orlando (MCO)	Jacksonville (JAX)	Savannah (SAV)	Orlando (MCO)
2	New York Newark (EWR)	$250	$165	$119	$116	152%	210%	215%
3	Boston (BOS)	$232	$136	$155	$138	171%	149%	168%
4	Chicago O'Hare (ORD)	$257	$145	$190	$126	177%	135%	204%
5	Philadelphia (PHL)	$257	$161	$178	$104	160%	144%	246%
6	Atlanta (ATL)	$177	$153	$176	$97	116%	101%	183%
7	Washington National (DCA)	$238	$132	$183	$114	180%	130%	208%
8	Denver (DEN)	$304	$161	$171	$146	188%	177%	208%
9	New York LaGuardia (LGA)	$245	$164	$141	$132	150%	174%	186%
10	Los Angeles (LAX)	$357	$247	$288	$174	144%	124%	205%
11	Dallas/Fort Worth (DFW)	$243	$231	$243	$146	105%	100%	166%
12	Baltimore (BWI)	$239	$143	$100	$102	167%	238%	235%
13	Detroit (DTW)	$260	$150	$201	$111	173%	129%	234%
14	Las Vegas (LAS)	$329	$160	$240	$146	206%	137%	226%
15	Minneapolis/St. Paul (MSP)	$292	$175	$186	$137	167%	157%	213%

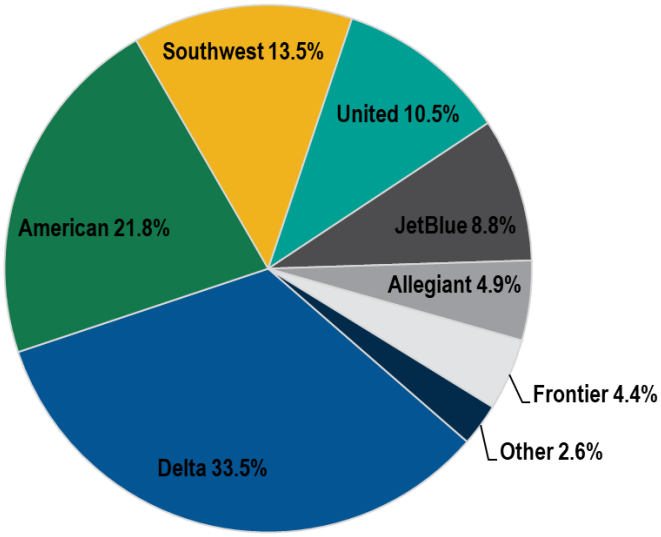
Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B).

For example, the Brunswick Golden Isles Airport's average one-way fare to New York's John F. Kennedy International Airport is $287, which is 112 percent higher than the average fare from Jacksonville International Airport to this destination; 146 percent higher than the average fare from Savannah/Hilton Head International Airport; and 110 percent higher than the average fare from Orlando International Airport.

60-Mile Catchment Area: Leakage by Air Carrier

Analyzing the "leaked" passengers by airline, Delta Air Lines captures 33.5 percent of the Brunswick Golden Isles Airport catchment area passengers. This includes passengers using Delta service out of Brunswick Golden Isles Airport, as well as passengers flying out of alternative airports also served by Delta Air Lines. The largest carrier not serving Brunswick Golden Isles Airport but capturing passengers from within the study airport's catchment area is American Airlines. American serves almost 22 percent of the Brunswick Golden Isles Airport market's catchment area passengers. Southwest Airlines follows second, serving over 13 percent of the lost passengers (**Figure 3-17**).

Figure 3-17: Brunswick Golden Isles Airport 60-Mile Catchment Area – Capture by Air Carrier



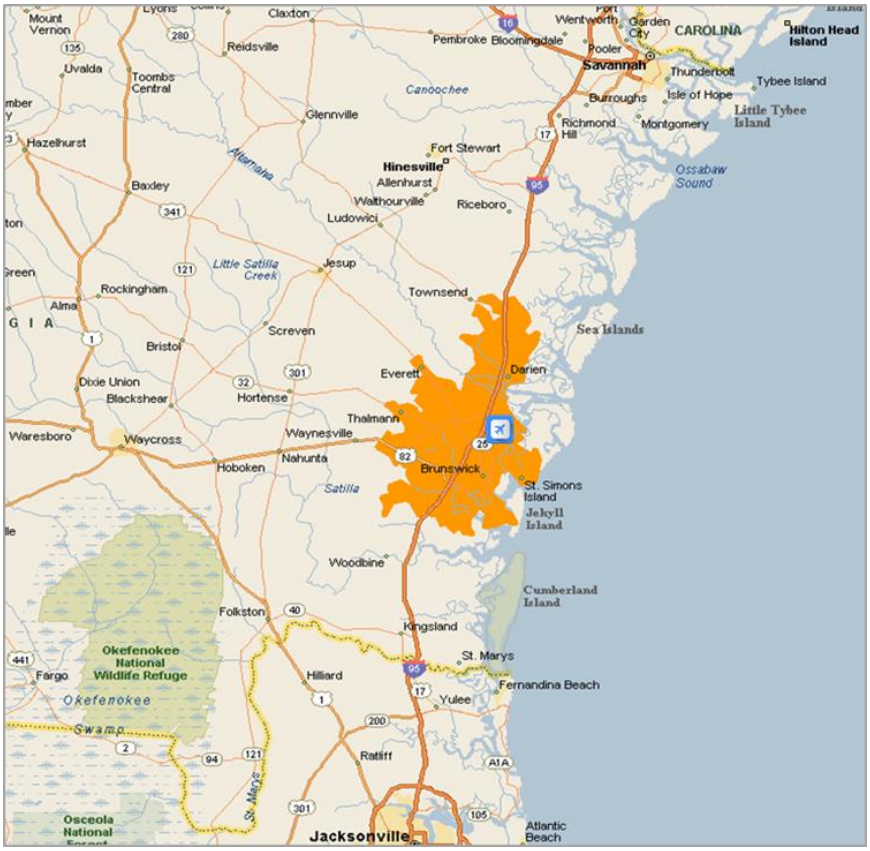
Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

30-Mile Catchment Area: Passenger Analysis

As mentioned previously, Brunswick Golden Isles Airport is located near Jacksonville International Airport and Savannah/Hilton Head International Airport. Because of its proximity to two larger airports, this study provides an additional leakage analysis of the Brunswick Golden Isles Airport market using a 30-mile radius catchment area (**Figure 3-18**). A 30-mile catchment area for the Brunswick Golden Isles Airport encompasses a population of over 78,000.[17]

[17] 2010 Census, United States Census Bureau. Data has been adjusted using population growth rates from Woods & Poole Economics, Inc.

Figure 3-18: Brunswick Golden Isles Airport 30-Mile Catchment Area



Source: Microsoft MapPoint.

In the 12-month period ending March 2019 (YE 1Q19), there were 350,968 O&D passengers (enplaned and deplaned) within the Brunswick Golden Isles Airport 30-mile catchment area who purchased airline tickets. Brunswick Golden Isles Airport captured 21.7 percent of the passenger traffic within the 30-mile catchment area.

Similar to the breakdown of potential passengers within the 60-mile catchment area, 46.9 percent flew out of Jacksonville International Airport, 12.2 percent flew out of Savannah/Hilton Head International Airport, 9.1 percent flew out of Orlando International Airport, and 5.2 percent flew out of Hartsfield-Jackson Atlanta International Airport. Tampa International (1.7 percent), Orlando Sanford International (1.0 percent), Charleston International (0.8 percent), and Charlotte Douglas International (0.5 percent) also received smaller percentages of the airport's potential passengers.[18]

When analyzing the study airport's lost passengers from the 30-mile catchment area, New York continued to rank first for markets using an airport other than Brunswick Golden Isles Airport (**Table 3-15**).

Table 3-15: Top 5 Markets in Brunswick Golden Isles Airport 30-Mile Catchment Area Using Alternative Airports, YE1Q19

Rank	Airport	Brunswick Golden Isles Reported O&D Passengers	Brunswick Golden Isles Capture Rate	Catchment Area O&D Passengers	Lost Passengers	% of Total Lost Passengers
1	New York Kennedy (JFK)	647	4.6%	14,170	13,523	4.5%

[18] Airline Data, Inc., Airport Catchment Analytics database.

Rank	Airport	Brunswick Golden Isles Reported O&D Passengers	Brunswick Golden Isles Capture Rate	Catchment Area O&D Passengers	Lost Passengers	% of Total Lost Passengers
2	Atlanta (ATL)	3,957	23.3%	16,988	13,031	4.3%
3	New York Newark (EWR)	1,470	11.0%	13,339	11,869	3.9%
4	Boston (BOS)	1,170	9.2%	12,758	11,588	3.8%
5	Chicago O'Hare (ORD)	1,440	11.6%	12,377	10,937	3.6%

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

The top five markets that passengers from the study airport's 30-mile catchment area fly to when they use Jacksonville International Airport, Savannah/Hilton Head International Airport, or Orlando International Airport are listed in **Table 3-16**. Like the analysis of the 60-mile catchment area, New York is the number one market for passengers using Jacksonville International Airport and Savannah/Hilton Head International Airport. For catchment area passengers flying from Orlando International Airport, Puerto Rico is the most popular market.

Table 3-16: Passenger Loss Within the Brunswick Golden Isles Airport 30-Mile Catchment Area

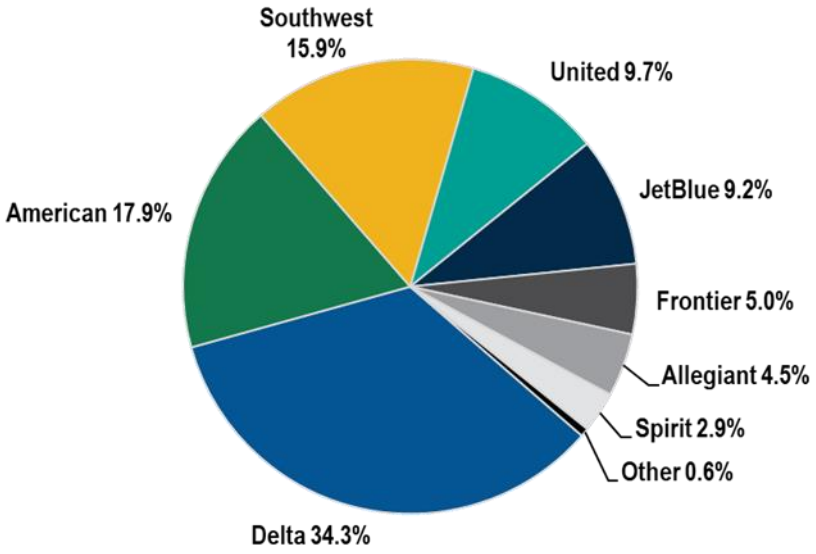
Competing Airport	Rank	Airport Market	Lost Passengers	% of Total Lost Passengers
Jacksonville International Airport	**1**	**New York Kennedy (JFK)**	**7,767**	**4.7%**
	2	Washington National (DCA)	7,752	4.7%
	3	Chicago O'Hare (ORD)	7,465	4.5%
	4	Boston (BOS)	7,181	4.4%
	5	Philadelphia (PHL)	5,983	3.6%
		All Markets	**164,431**	
Savannah/Hilton Head International Airport	**1**	**New York Kennedy (JFK)**	**4,772**	**11.2%**
	2	New York Newark (EWR)	4,521	10.6%
	3	Boston (BOS)	2,653	6.2%
	4	New York LaGuardia (LGA)	1,962	4.6%
	5	Chicago O'Hare (ORD)	1,613	3.8%
		All Markets	**42,694**	
Orlando International Airport	**1**	**San Juan, PR (SJU)**	**3,550**	**11.1%**
	2	Los Angeles (LAX)	1,678	5.2%
	3	Long Island Islip (ISP)	1,396	4.4%
	4	New York Newark (EWR)	1,341	4.2%
	5	Philadelphia (PHL)	1,178	3.7%
		All Markets	**31,984**	

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

30-Mile Catchment Area: Leakage by Air Carrier

Within the 30-mile catchment area, Delta Air Lines captured 34.3 percent of the study airport's market. American Airlines was second, serving almost 18 percent of the Brunswick Golden Isles Airport's 30-mile catchment area passengers. Southwest Airlines followed third, capturing almost 16 percent of the lost passengers (**Figure 3-19**).

Figure 3-19: Brunswick Golden Isles Airport 30-Mile Catchment Area – Capture by Air Carrier



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

3.4.2 Benchmarking Analysis – Brunswick Golden Isles Airport

As another element of the Statewide Air Service Study, a benchmarking study was prepared for select commercial service airports in Georgia. The purpose of a benchmarking study is to compare the performance of one airport to another similarly situated airport. For the purposes of this analysis, "similarly situated" refers to the proximity of the study airports to a large hub airport, which is a larger airport that typically offers significantly more variation in service and frequency of departures than smaller airports.

Selection of Peer Airports

Six airports were selected for comparison as peer airports for the Brunswick Golden Isles Airport following the process described above. These peer airports include:

- Brainerd Lakes Regional Airport (BRD), Brainerd, MN
- Coastal Carolina Regional Airport (EWN), New Bern, NC
- Eagle County Regional Airport (EGE), Gypsum, CO (Eagle/Vail)
- Northwest Alabama Regional Airport (MSL), Muscle Shoals, AL
- Raleigh County Memorial Airport (BKW), Beckley, WV
- Shenandoah Valley Regional Airport (SHD), Weyers Cave, VA

Study Airport and Peer Group Comparison – Economic and Demographic Indicators

The Brunswick Golden Isles Airport was compared to the six peer airports using four economic and demographic indicators: population, employment, GRP, and income per capita. These indicators create a collective story about the study airport's market. The indicators can be used to highlight the market's strengths as well as to identify potential weaknesses that may need further explanation to airlines considering new service. Demographic and economic data was sourced from the 2010 U.S. Census and then extrapolated using

forecast rates generated by Woods and Poole Economics, Inc. Data used in the analysis was for the city or county where the airport is located.

The seven airports were ranked in order from one (high score) to seven (low score) based on the economic and demographic indicators. For the purposes of the ranking exercise, each of the metrics was weighted equally (meaning, each was considered as important as another). As **Table 3-17** indicates, the Brunswick Golden Isles Airport's market is near or slightly below the average of the peers in all four categories. This suggests that the air service performance would likely be near the average of the peer airports.

Table 3-17: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators

Base Airport	2019 Population	2019 Gross Regional Product	2019 Employment	2019 Income per Capita
Brunswick Golden Isles Airport (BQK)	**4**	**5**	**4**	**5**
Brainerd Lakes Regional Airport (BRD)	6	7	5	2
Coastal Carolina Regional Airport (EWN)	2	3	2	4
Eagle County Regional Airport (EGE)	7	6	7	1
Northwest Alabama Regional Airport (MSL)	1	2	1	6
Raleigh County Memorial Airport (BKW)	5	4	6	7
Shenandoah Valley Regional Airport (SHD)	3	1	3	3
	1 = High Score; 7 = Low Score			

Source Data: Woods & Poole Economics, Inc., 2019.

Study Airport and Peer Group Comparison – Key Demand, Key Supply, and Key Market Output and Connectivity Indicators

After the peer airports and the study airport were compared by demographic and economic indicators, they were then measured by key performance indicators related to air service.

Key Demand Performance Indicators

Key Demand Performance Indicators are important criteria for airlines and are associated with passenger demand at a particular airport and the profitability of its routes.

- *Average O&D Passenger Traffic per Outbound Seat*: This is the total number of O&D trips (arrivals and departures) divided by the number of outbound seats available. While the number of passenger enplanements is an important metric for airports, airlines look at the number of O&D passengers as a measure of local demand. Unlike enplaned/deplaned passenger counts, which include both local and connecting traffic, O&D figures are based on passenger itineraries which list true origins and destinations, whether the passenger flies nonstop or connects to complete the journey.
- *Average O&D Passenger Revenue per Aircraft Departure*: This indicator measures the revenue associated with an aircraft departure. It is calculated by multiplying the number of O&D passengers with the average one-way fare in each respective city-pair (origin and destination city).

Key Supply Performance Indicators

Key Supply Performance Indicators are associated with airline management of passenger seat capacity at a particular airport and the market's response in turn.

- *Average Number of Outbound Seats per Aircraft Departure*: Increases in the number of outbound seats typically indicate a trend toward the use of larger aircraft in a market.
- *Average Passenger Load Factor*: Load factor, defined by the FAA as the percentage of available seats that are filled with passengers, is a measure of passenger utilization. It is an important data point for airlines when deciding whether to increase the size of aircraft, add new service, or even reduce service.

Key Market Output and Connectivity Indicators

Key Market Output and Connectivity indicators relate to the passengers associated with the airport's market utilizing the local airport.

- *Average O&D Passenger Traffic per Capita*: Also known as "propensity to fly," Average O&D Passenger Traffic per Capita is the average number of trips taken by those who live in the airport's immediate market or metropolitan area (O&D passenger traffic divided by the population within the market). Airlines often use this metric to determine the level of future demand for travel. Propensity to fly can also inform decision-makers about what kind of service to pursue, or what other hubs in the system might better satisfy the local market's demand for different destinations.
- *Total Market Connectivity*: Total Market Connectivity describes an airport's connectivity (number of flights) to other larger airports in the system. It is often the critical variable in explaining a passenger's decision to use the local airport versus selecting an alternative airport. Connectivity for nonhub airports is particularly important since access to larger airports can provide passengers with a variety of destination choices.

Brunswick Golden Isles Airport's Ranking by Key Performance Indicators

After analyzing each indicator separately, the Brunswick Golden Isles Airport's standing, as compared to the peer airports, is summarized in **Table 3-18**. Rankings range from first (1) to seventh (7), with seven being the lowest ranking score.

Table 3-18: Brunswick Golden Isles Airport's Ranking by Key Performance Indicators

	Performance Metric	2014	2019
Key Demand	Average Origin & Destination Passenger Traffic per Outbound Seat	2	1
	Average Origin & Destination Passenger Revenue per Aircraft Departure	3	2
Key Supply	Average Number of Outbound Seats per Aircraft Departure	3	3
	Average Passenger Load Factor	3	2
Key Market	Average Origin & Destination Traffic per Capita/Propensity to Fly	3	3
	Total Market Connectivity/Airport Connectivity Quality Index (ACQI)	3	3
	Aggregate Rank	**2.8**	**2.3**

Source: Delta Airport Consultants, Inc., Analysis.

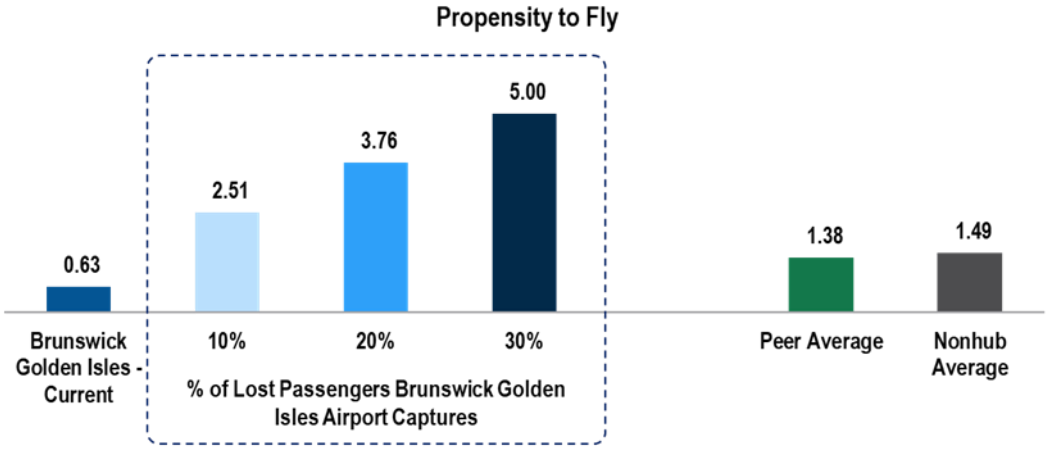
Among the seven airports, the Brunswick Golden Isles Airport's average ranking is 2.3, which is a modest improvement over its 2014 ranking. While the change in the aggregate ranking was minor, the Brunswick Golden Isles Airport did improve its relative ranking in three of the six measurements. The airport's total aggregate ranking should continue to improve if the fourth planned departure becomes a reality.

3.4.3 Sensitivity Analysis – Brunswick Golden Isles Airport

Figure 3-20 depicts the outcome of a sensitivity analysis that considers the results of the separate benchmarking and leakage analysis studies conducted for Brunswick Golden Isles Airport as part of the Georgia Statewide Air Service Study. As noted previously, the leakage analysis determined the airport is capturing approximately 4.8 percent of the potential O&D passenger demand within its catchment area, while the annual demand is 1.6 million passenger trips.

The sensitivity analysis considers a market's propensity to fly and presents several possible scenarios in which the airport might capture a percentage of its current passenger leakage through improved service. As shown, if Brunswick Golden Isles Airport were to capture 10 percent of its passenger leakage, then its propensity to fly would be greater than the peer average and the U.S. nonhub average. The planned fourth departure frequency would help capture some of the lost passengers.

Figure 3-20: Brunswick Golden Isles Airport – Sensitivity Analysis



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airline schedule data; Woods & Poole Economics, Inc., 2019.

3.4.4 Summary of Leakage and Benchmarking Findings for Brunswick Golden Isles Airport

The strength of demand of the Brunswick Golden Isles Airport market, as demonstrated by its above-average Key Demand Performance Indicators, supports a strong business case to airlines to consider adding service to the market. The average O&D passenger revenue per aircraft departure at the Brunswick Golden Isles Airport compares favorably to that of its peer airports and the U.S. nonhub average, which should be especially attractive to airlines. The fact that traffic is growing while the number of seats has been constant underscores the presence of demand and the market's ability to accommodate additional service. This, in addition to load factors averaging 77 percent, likely contributed to Delta Air Lines decision to add a fourth daily departure to Atlanta.

In response to the findings from a 2016 leakage analysis conducted by others, Brunswick Golden Isles has been actively marketing to Delta Air Lines, American Airlines, and Contour Airlines to encourage increased air services for its community. These efforts paid off in 2019 with Delta's announcement of plans to add a fourth scheduled daily departure, using a larger aircraft with a first-class service option. Should the additional service be implemented by Delta once it is able to resume normal operations currently affected by the COVID-19 pandemic, Brunswick leaders should adopt targeted promotional efforts to support existing and additional service.

The fact that the airport is served by only one airline (Delta Air Lines) to one destination (Hartsfield-Jackson Atlanta International Airport) limits its ability to provide passengers with a variety of destination options. Brunswick Golden Isles Airport air service proponents may consider marketing the airport to a second airline to increase demand and competition. A strategy-shift in marketing to that of a leisure destination may also be necessary to best make the business case to new airlines.

The Brunswick Golden Isles Airport currently captures 4.8 percent of the potential passenger traffic within its 60-mile catchment area. The leakage analysis performed for the Air Service Study, as well as an independent leakage analysis commissioned by Brunswick Golden Isles Airport in 2016, identifies Jacksonville International Airport as the primary alternative airport used by passengers from Brunswick Golden Isles Airport's catchment area, with many of the passengers within the study airport's catchment area flying to and from airports in the New York area.

Brunswick Golden Isles Airport leaders have been pursuing non-stop service options to the New York and Washington, D.C. areas following the 2016 leakage analysis. Since the study airport continues to demonstrate considerable demand from the New York area, Brunswick Golden Isles Airport could consider approaching Delta Air Lines again in the future about offering a direct service option from either New York LaGuardia Airport or John F. Kennedy International Airport. Additionally, service by United Airlines from Newark Liberty International Airport could be pursued. A daily service could potentially be supported between a New York area airport and the Brunswick Golden Isles Airport. Attracting an LCC or ULCC to Brunswick is unlikely since these airlines typically look for O&D markets larger than Brunswick and are already serving nearby Savannah and Jacksonville.

3.5 Columbus Airport

The Columbus Airport is owned and operated by the Columbus Airport Commission. It is situated in the western portion of the state, four miles northeast of Columbus, in Muscogee County, Georgia. As **Table 3-19** indicates, the airport currently has four scheduled daily departures to Hartsfield-Jackson Atlanta International Airport by Delta Air Lines.[19] Delta Air Lines had announced that it planned to add a fifth scheduled daily departure in June 2020.[20] However, this plan is uncertain due to impacts from the COVID-19 pandemic.

Table 3-19: Air Service at Columbus Airport

Airport	Carrier	Average Daily Departures	Average Daily Outbound Seats
Hartsfield-Jackson Atlanta International (ATL)	Delta Air Lines	3	175

Source: Airline Data, Inc., Airline schedule data.

3.5.1 Leakage Analysis – Columbus Airport

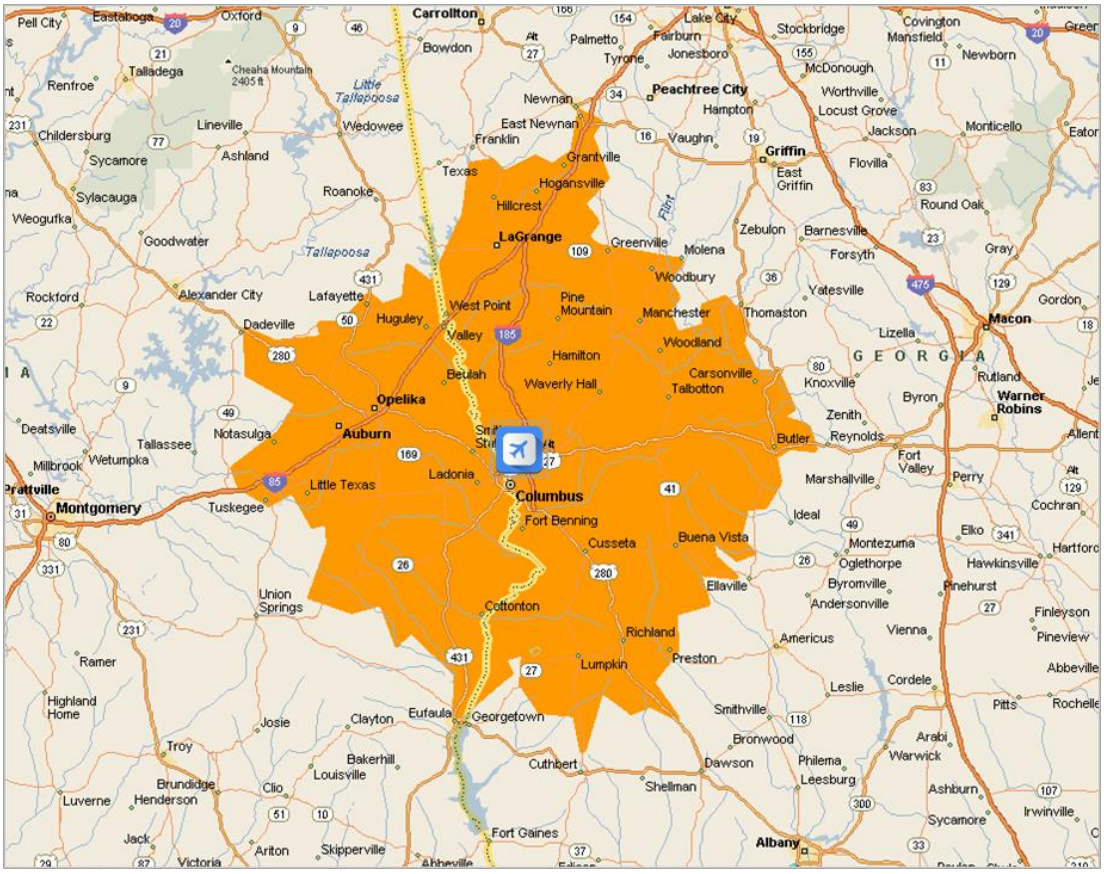
The primary catchment area for Columbus Airport (**Figure 3-21**) encompasses a population of over 650,000.[21] For this analysis, the catchment area is composed of zip codes falling within a 60-mile radius of, or roughly a 60-minute drive from, the study airport.

[19] Columbus Airport had four scheduled daily departures in 2019; however, due to cancellations, the average number of daily departures was 3.49. Average Daily Departures data in Table 3-19 was rounded to a whole number.
[20] Elizabeth Wolf, "Delta increases service between Atlanta, key regional airports throughout Georgia," Delta News Hub, Delta Airlines, Inc., posted December 8, 2019, https://news.delta.com/delta-increases-service-between-atlanta-key-regional-airports-throughout-georgia.
[21] 2010 Census, United States Census Bureau. Data has been adjusted using population growth rates from Woods & Poole Economics, Inc.

In the 12-month period ending March 2019, there were 89,376 O&D passengers from within the catchment area who used the Columbus Airport.[22] O&D figures include both enplaned and deplaned passengers. For nonhub airports like Columbus Airport, there is little-to-no connecting traffic; therefore, half the number of O&D passengers is roughly equivalent to the number of enplaned passengers.

An analysis of Airport Catchment Analytics data from Airline Data, Inc., shows that 1,007,391 O&D passengers (enplaned and deplaned) within the catchment area purchased airline tickets in the same 12-month period. This means that the Columbus Airport currently captures 89,376, or 8.9 percent, of the potential one million air traveler trips in its catchment area; the remaining 91.1 percent of the trips occur from alternative airports.

Figure 3-21: Columbus Airport Catchment Area



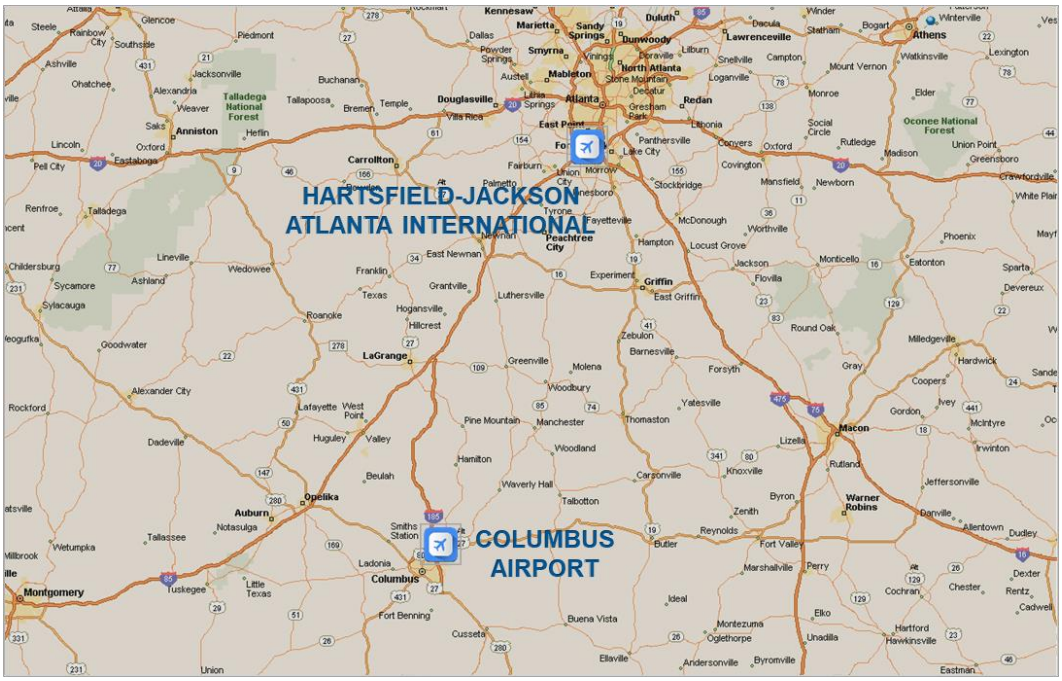
Source: Microsoft MapPoint.

The Columbus Airport's catchment area contains a significant amount of potential passenger demand. However, the airport is competing against a highway system that makes it easier for people to drive or take scheduled commercial van and bus service to Hartsfield-Jackson Atlanta International Airport, which is only 94 miles away (**Figure 3-22**). Hartsfield-Jackson Atlanta International Airport has significantly more daily departures than Columbus Airport, making it a more attractive option for many passengers. The appeal of Hartsfield-Jackson Atlanta International Airport (ATL) over the Columbus Airport is demonstrated by the fact

[22] U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airport Catchment Analytics database.

that ATL currently captures 90.4 percent of the passengers lost from the catchment area for the Columbus Airport (**Table 3-20**).

Figure 3-22: Columbus Airport – Passenger Leakage to Alternative Airports



Source: Bing Maps.

Table 3-20: Columbus Airport – Passenger Traffic to Alternative Airports, YE1Q19

Nearby Airport	Miles Away	Drive Time	% of Total Catchment Area Traffic	Avg. Daily Domestic Departures	Avg. Daily Domestic Outbound Seats
Hartsfield-Jackson Atlanta International (ATL)	94	1:39	90.4%	1,090	153,309
Columbus (CSG)	**-**	**-**	**8.9%**	**3.5**	**175**

Sources: Airport Data, Inc., Airport Catchment Analytics database; Bing Maps (mileage and drive time).

Passenger Destinations – Columbus Airport

In addition to identifying the alternative airports being used by passengers from the Columbus Airport catchment area, it is also important to understand the travelers' ultimate destination. When analyzing lost passengers, the three largest markets for travelers using an airport other than Columbus Airport for service are New York, Orlando, and Boston.

This type of data is particularly important for an airport to be able to quantify for airline route planners. For example, and as shown in **Table 3-21**, 2,033 (4.3 percent) of passengers within the catchment area who flew to New York La Guardia Airport (LGA), flew from Columbus Airport. However, the remainder – which represents over 45,000 passengers and five percent of the potential passengers for Columbus Airport – used Hartsfield-Jackson Atlanta International Airport.

Table 3-21: Top 20 Markets in the Columbus Airport Catchment Area Using Alternative Airports, YE 1Q19

Rank	Airport	Columbus Reported O&D Passengers	Columbus Capture Rate	Catchment Area O&D Passengers	Lost Passengers	% of Total Lost Passengers
1	New York LaGuardia (LGA)	2,033	4.3%	47,753	45,720	5.0%
2	Orlando (MCO)	1,324	3.7%	35,842	34,518	3.8%
3	Boston (BOS)	1,581	4.8%	32,885	31,304	3.4%
4	Fort Lauderdale (FLL)	1,088	3.5%	31,273	30,185	3.3%
5	Chicago O'Hare (ORD)	687	2.3%	30,418	29,731	3.2%
6	Los Angeles (LAX)	1,459	4.9%	29,616	28,157	3.1%
7	Dallas/Fort Worth (DFW)	1,626	5.8%	28,015	26,389	2.9%
8	Washington National (DCA)	3,272	11.1%	29,354	26,082	2.8%
9	Philadelphia (PHL)	1,090	4.2%	25,915	24,825	2.7%
10	Baltimore (BWI)	2,046	7.7%	26,686	24,640	2.7%
11	Denver (DEN)	974	3.8%	25,566	24,592	2.7%
12	New York Newark (EWR)	1,215	4.8%	25,488	24,273	2.6%
13	Detroit (DTW)	1,503	6.5%	23,217	21,714	2.4%
14	Tampa (TPA)	1,281	5.7%	22,409	21,128	2.3%
15	Las Vegas (LAS)	1,125	5.1%	22,060	20,935	2.3%
16	Miami (MIA)	891	4.2%	20,988	20,097	2.2%
17	Chicago Midway (MDW)	482	2.8%	16,938	16,456	1.8%
18	Houston Bush (IAH)	1,044	6.4%	16,333	15,289	1.7%
19	Minneapolis/St. Paul (MSP)	1,194	7.5%	15,900	14,706	1.6%
20	New York Kennedy (JFK)	720	4.9%	14,624	13,904	1.5%

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

Average Fare Comparison – Columbus Airport

As noted previously, price is one of the most important determinants for the consumer when choosing which airport to use. When comparing average fares at the Columbus Airport to those at Hartsfield-Jackson Atlanta International Airport, fares at the Columbus Airport are consistently higher on average than those available at Hartsfield-Jackson Atlanta International Airport (**Table 3-22**).

Table 3-22: Average Fare Comparison – Columbus Airport

		Average One-Way Fare		Fare Ratio – Columbus Versus
Rank	Airport	Columbus (CSG)	Atlanta (ATL)	Atlanta (ATL)
1	New York LaGuardia (LGA)	$229	$154	149%
2	Orlando (MCO)	$207	$97	214%
3	Boston (BOS)	$235	$110	214%
4	Fort Lauderdale (FLL)	$182	$93	195%
5	Chicago O'Hare (ORD)	$225	$135	167%
6	Los Angeles (LAX)	$337	$218	155%
7	Dallas/Fort Worth (DFW)	$242	$144	168%
8	Washington National (DCA)	$261	$168	155%
9	Philadelphia (PHL)	$220	$142	154%

		Average One-Way Fare		Fare Ratio – Columbus Versus
Rank	Airport	Columbus (CSG)	Atlanta (ATL)	Atlanta (ATL)
10	Baltimore (BWI)	$253	$110	231%
11	Denver (DEN)	$254	$154	165%
12	New York Newark (EWR)	$241	$171	141%
13	Detroit (DTW)	$252	$133	190%
14	Tampa (TPA)	$190	$120	158%
15	Las Vegas (LAS)	$287	$179	161%

Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B).

For example, the Columbus Airport's average one-way fare to Boston is $235, which is 114 percent higher than the average fare from Hartsfield-Jackson Atlanta International Airport to this market.

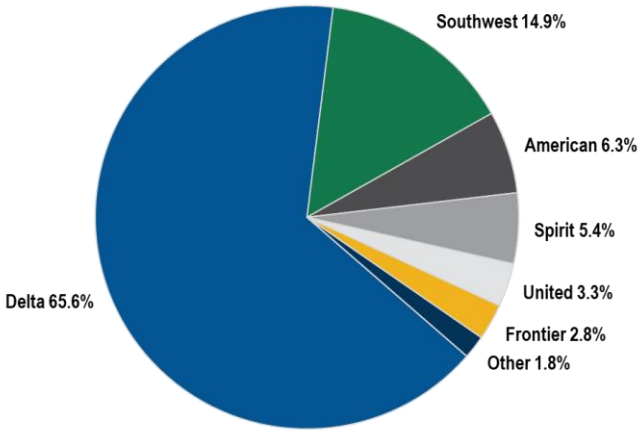
Leakage by Air Carrier – Columbus Airport

Analyzing the "leaked" passengers by airline, Delta Air Lines captures over 65 percent of the Columbus Airport catchment area passengers (**Figure 3-23**). This includes passengers using Delta Air Lines service out of the Columbus Airport, as well as passengers flying out of Hartsfield-Jackson Atlanta International Airport.

The largest carrier not serving the Columbus Airport, but capturing passengers from within the study airport's catchment area, is Southwest Airlines. Southwest serves almost 15 percent of the Columbus Airport market's catchment area passengers. American Airlines follows second, serving a little over six percent of the passengers lost from this market.

Delta Air Lines should arguably be capturing more traffic from the Columbus Airport catchment area because of the service it offers at Hartsfield-Jackson Atlanta International Airport, but it is not. This suggests there may be an opportunity for the Columbus Airport and Delta Air Lines to create a program that would enable Delta Air Lines to capture a greater share of the Columbus Airport passengers who are driving to Hartsfield-Jackson Atlanta International Airport to use airlines other than Delta.

Figure 3-23: Columbus Airport – Capture by Air Carrier



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

3.5.2 Benchmarking Analysis – Columbus Airport

As another element of the Statewide Air Service Study, a benchmarking study was prepared for select commercial service airports in Georgia. The purpose of a benchmarking study is to compare the performance of one airport to another similarly situated airport. For the purposes of this analysis, "similarly situated" refers to the proximity of the study airports to a large hub airport, which is a larger airport that typically offers significantly more variation in service and frequency of departures than smaller airports.

Selection of Peer Airports

Six airports were selected for comparison as peer airports for the Columbus Airport following the process described above. These peer airports include:

- Appleton International Airport (ATW), Appleton, WI
- Bishop International Airport (FNT), Flint, MI
- Charlottesville–Albemarle Airport (CHO), Charlottesville, VA
- Duluth International Airport (DLH), Duluth, MN
- Gainesville Regional Airport (GNV), Gainesville, FL
- Montgomery Regional Airport (MGM), Montgomery, AL

Study Airport and Peer Group Comparison – Economic and Demographic Indicators

Columbus Airport was compared to the six peer airports using four economic and demographic indicators: population, employment, GRP, and income per capita. These indicators create a collective story about the study airport's market and can be used to highlight its strengths as well as to identify potential weaknesses that may need further explanation to airlines considering new service. Demographic and economic data was sourced from the 2010 U.S. Census and then extrapolated using forecast rates generated by Woods and Poole Economics, Inc. Data used in the analysis was for the city or county where the airport is located.

The seven airports were ranked in order from one (high score) to seven (low score) based on the economic and demographic indicators. For the purposes of the ranking exercise, each of the metrics was weighted equally (meaning, each was considered as important as another). As **Table 3-23** shows, the Columbus Airport's market compares favorably – a ranking of three or better – for Population, GRP, and Employment. Although the market compares favorably, the service level is much less the peer airports. As indicated earlier, this appears to be related to the close driving proximity to Hartsfield-Jackson Atlanta International Airport.

Table 3-23: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators

Base Airport	2019 Population	2019 Gross Regional Product	2019 Employment	2019 Income per Capita
Columbus Airport (CSG)	**3**	**2**	**3**	**6**
Appleton International Airport (ATW)	5	7	6	2
Bishop International Airport (FNT)	7	6	7	1
Charlottesville–Albemarle Airport (CHO)	4	5	5	3
Duluth International Airport (DLH)	1	4	2	7
Gainesville Regional Airport (GNV)	2	3	1	5
Montgomery Regional Airport (MGM)	6	1	4	4
	1 = High Score; 7 = Low Score			

Source Data: Woods & Poole Economics, Inc., 2019.

Study Airport and Peer Group Comparison – Key Demand, Key Supply, and Key Market Output and Connectivity Indicators

After the peer airports and the study airport were compared by demographic and economic indicators, they were then measured by key performance indicators related to air service.

Key Demand Performance Indicators

Key Demand Performance Indicators are important criteria for airlines and are associated with passenger demand at a particular airport and the profitability of its routes.

- *Average O&D Passenger Traffic per Outbound Seat:* This is the total number of O&D trips (arrivals and departures) divided by the number of outbound seats available. While the number of passenger enplanements is an important metric for airports, airlines look at the number of O&D passengers as a measure of local demand. Unlike enplaned/deplaned passenger counts, which include both local and connecting traffic, O&D figures are based on passenger itineraries which list true origins and destinations, whether the passenger flies nonstop or connects to complete the journey.
- *Average O&D Passenger Revenue per Aircraft Departure:* This indicator measures the revenue associated with an aircraft departure. It is calculated by multiplying the number of O&D passengers with the average one-way fare in each respective city-pair (origin and destination city).

Key Supply Performance Indicators

Key Supply Performance Indicators are associated with airline management of passenger seat capacity at a particular airport and the market's response in turn.

- *Average Number of Outbound Seats per Aircraft Departure:* Increases in the number of outbound seats typically indicate a trend toward the use of larger aircraft in a market.
- *Average Passenger Load Factor:* Load factor, defined by the FAA as the percentage of available seats that are filled with passengers, is a measure of passenger utilization. It is an important data point for airlines when deciding whether to increase the size of aircraft, add new service, or even reduce service.

Key Market Output and Connectivity Indicators

Key Market Output and Connectivity indicators relate to the passengers associated with the airport's market utilizing the local airport.

- *Average O&D Passenger Traffic per Capita*: Also known as "propensity to fly," Average O&D Passenger Traffic per Capita is the average number of trips taken by those who live in the airport's immediate market or metropolitan area (O&D passenger traffic divided by the population within the market). Airlines often use this metric to determine the level of future demand for travel. Propensity to fly can also inform decision-makers about what kind of service to pursue, or what other hubs in the system might better satisfy the local market's demand for different destinations.
- *Total Market Connectivity*: Total Market Connectivity describes an airport's connectivity (number of flights) to other larger airports in the system. It is often the critical variable in explaining a passenger's decision to use the local airport versus selecting an alternative airport. Connectivity for nonhub airports is particularly important since access to larger airports can provide passengers with a variety of destination choices.

Columbus Airport's Ranking by Key Performance Indicators

After analyzing each indicator separately, Columbus Airport's standing as compared to the six peer airports is summarized in **Table 3-24**. Rankings range from first (1) to seventh (7), with seven being the lowest ranking score.

Table 3-24: Columbus Airport's Ranking by Key Performance Indicators

	Performance Metric	2014	2019
Key Demand	Average Origin & Destination Passenger Traffic per Outbound Seat	7	5
	Average Origin & Destination Passenger Revenue per Aircraft Departure	4	4
Key Supply	Average Number of Outbound Seats per Aircraft Departure	6	7
	Average Passenger Load Factor	7	5
Key Market	Average Origin & Destination Traffic per Capita/Propensity to Fly	7	7
	Total Market Connectivity/Airport Connectivity Quality Index (ACQI)	7	7
	Aggregate Rank	**6.3**	**5.8**

Source: Delta Airport Consultants, Inc., Analysis.

Among the seven airports, Columbus Airport's average ranking is 5.8, which is a slight improvement over its 2014 ranking. The study airport's total aggregate ranking should improve modestly if the fifth departure option is implemented after the airline industry recovers from impacts due to the COVID-19 pandemic.

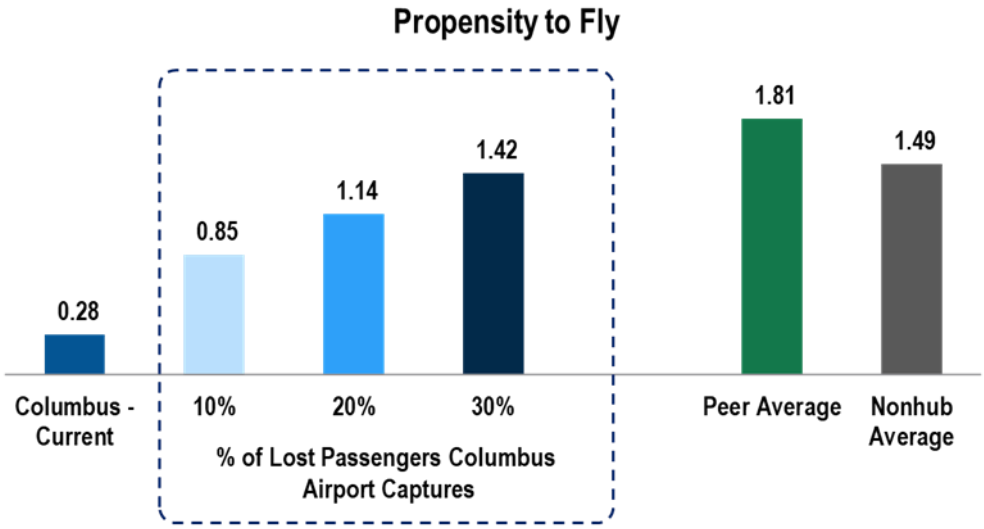
3.5.3 Sensitivity Analysis – Columbus Airport

Figure 3-24 depicts the outcome of a sensitivity analysis that considers the results of the separate benchmarking and leakage analysis studies conducted for Columbus Airport as part of the Georgia Statewide Air Service Study. As noted previously, the leakage analysis determined the study airport is capturing approximately 8.9 percent of the potential O&D passenger demand within its catchment area, while the annual demand is one million passenger trips.

The sensitivity analysis considers a market's propensity to fly and presents several possible scenarios in which the airport might capture a percentage of its current passenger leakage through improved service. As shown, the Columbus Airport would have to capture 30 percent of its passenger leakage to achieve a propensity to fly level that is close to the U.S. nonhub average.

If Delta Air Lines' fifth departure is added after the airline industry recovers from the impacts of the COVID-19 pandemic, it should help capture some of the lost passengers; however, the additional flight will not add enough seat capacity to be sufficient to achieve the 30 percent capture rate. Moreover, given the proximity to Hartsfield-Jackson Atlanta International Airport, a capture rate of 30 percent is likely not feasible without a second carrier and hub option.

Figure 3-24: Columbus Airport – Sensitivity Analysis



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airline schedule data; Woods & Poole Economics, Inc., 2019.

3.5.4 Summary of Leakage and Benchmarking Findings for Columbus Airport

Given the economic and demographic underpinning of Columbus Airport, a higher level of service could be expected than is in place today. Both the average O&D passenger traffic per outbound seat and average O&D passenger revenue per aircraft departure at Columbus Airport are higher than those of its peer airports and the U.S. nonhub average. This, in addition to high load factors averaging 78 percent, likely contributed to Delta Air Lines' plans to add a fifth daily departure to Atlanta. If this additional flight becomes a reality when the COVID-19 pandemic ends, promotion of the new departure option to potential passengers will be important for Columbus Airport to maintain both the existing and additional service.

The Airport's proximity to Hartsfield-Jackson Atlanta International Airport likely undermines its level of service and is an impediment that could prevent it from realizing its full air service potential. Columbus Airport currently captures only 8.9 percent of the potential passenger traffic within its catchment area. The loss of passengers from its catchment area also underscores how far people will drive to find more flight options as well as cheaper airfare.

There are key strategies Columbus Airport representatives might employ in order to pursue air service improvements for their community. The first involves promotion of a "Fly Local" campaign and illustrating to Delta Air Lines how the carrier is not capturing its expected share of the Columbus Airport passengers. It would also be important to highlight the pricing differences between Hartsfield-Jackson Atlanta International Airport and Columbus Airport as well as encourage exploration of possible pricing adjustments to certain markets, at least at certain times of the day. A "Fly Local" campaign could also be used to help potential passengers understand the costs of mileage, time, and parking when choosing an alternative airport.

The second strategy would be to share the market's analysis with American Airlines and demonstrate that Columbus Airport could be a good addition to the carrier's Charlotte Douglas International Airport hub. This would provide more options for passengers and more price competition. Attracting a low-cost or ultra-low-cost carrier to Columbus Airport is unlikely since these airlines typically fly larger aircraft and look for larger O&D markets or markets with more of a leisure orientation than Columbus.

3.6 Southwest Georgia Regional Airport

Southwest Georgia Regional Airport is a city-owned airport situated in the southwestern portion of the state, four miles south of Albany, in Dougherty County, Georgia. As **Table 3-25** indicates, the airport currently has an average of three daily departures to Hartsfield-Jackson Atlanta International Airport by Delta Air Lines. Delta Air Lines announced plans in December 2019 to add a fourth scheduled daily departure in June 2020.[23] However, this plan is uncertain due to impacts on the airline industry from the COVID-19 pandemic.

Table 3-25: Air Service at Southwest Georgia Regional Airport

Airport	Carrier	Average Daily Departures	Average Daily Outbound Seats
Hartsfield-Jackson Atlanta International (ATL)	Delta Air Lines	3	138

Source: Airline Data, Inc., Airline schedule data.

3.6.1 Leakage Analysis – Southwest Georgia Regional Airport

The primary catchment area for Southwest Georgia Regional Airport (**Figure 3-25**) encompasses a population of over 400,000.[24] For this analysis, the catchment area is composed of zip codes falling within a 60-mile radius of, or roughly a 60-minute drive from, the study airport.

In the 12-month period ending March 2019, there were 76,311 O&D passengers from within the catchment area who used the Southwest Georgia Regional Airport.[25] O&D figures include both enplaned and deplaned passengers. For nonhub airports like the study airport, there is little-to-no connecting traffic; therefore, half the number of O&D passengers is roughly equivalent to the number of enplaned passengers.

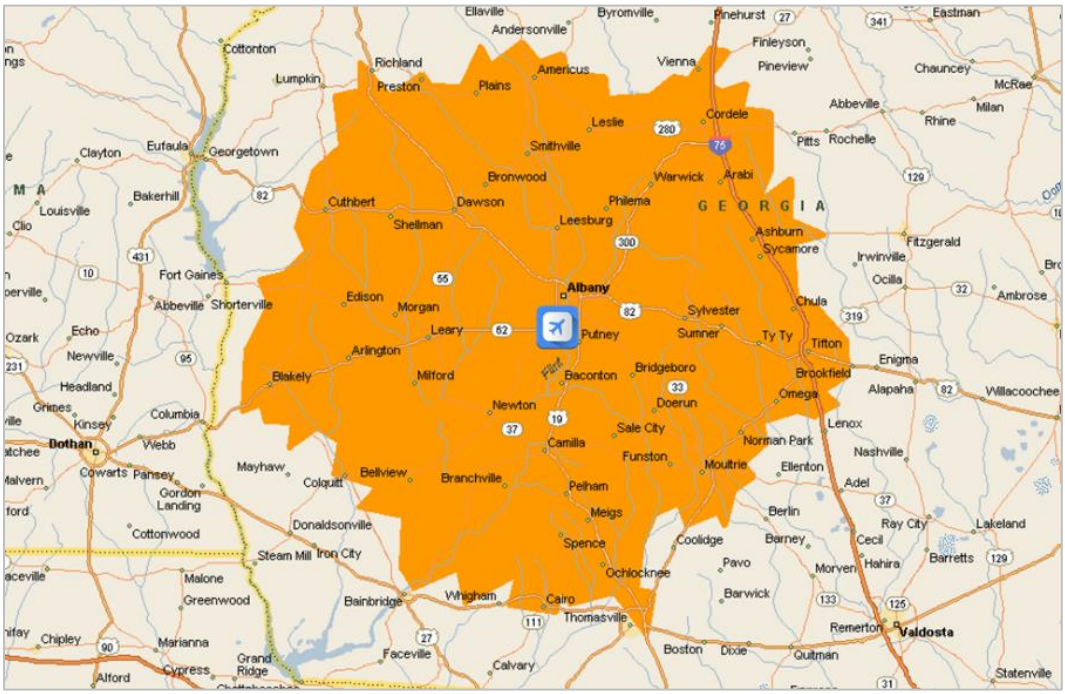
An analysis of Airport Catchment Analytics data from Airline Data, Inc., shows that 468,670 O&D passengers (enplaned and deplaned) within the catchment area purchased airline tickets in the same 12-month period. This means that the Southwest Georgia Regional Airport currently captures 76,311, or 16.3 percent, of the potential 469,000 air traveler trips in its catchment area; the remaining 83.7 percent of the trips occur from another airport. On a positive note, this demonstrates there is opportunity available for Delta Air Lines' planned increase in daily service at the Southwest Georgia Regional Airport, if the flight becomes a reality after the airline industry recovers from impacts due to the COVID-19 pandemic.

[23] Elizabeth Wolf, "Delta increases service between Atlanta, key regional airports throughout Georgia," Delta News Hub, Delta Airlines, Inc., posted December 8, 2019, https://news.delta.com/delta-increases-service-between-atlanta-key-regional-airports-throughout-georgia.

[24] 2010 Census, United States Census Bureau. Data has been adjusted using population growth rates from Woods & Poole Economics, Inc.

[25] U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airport Catchment Analytics database.

Figure 3-25: Southwest Georgia Regional Airport Catchment Area

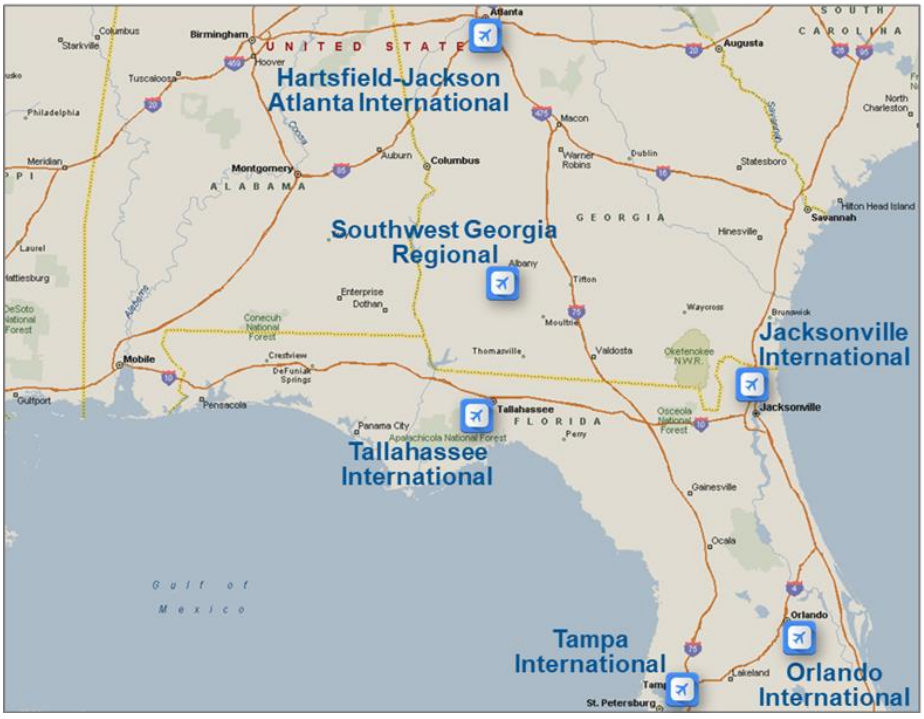


Source: Microsoft MapPoint.

Five commercial airports capture the predominant share of lost Southwest Georgia Regional Airport passengers: Hartsfield-Jackson Atlanta International Airport (ATL), which is 185 miles from the study airport; Orlando International Airport (MCO), which is 305 miles from the study airport; Jacksonville International Airport (JAX), which is 213 miles from the study airport; Tallahassee International Airport (TLH), which is 98 miles from the study airport; and, Tampa International Airport (TPA), which is 320 miles from the study airport (**Figure 3-26**). Each of these airports has more scheduled airline service than Southwest Georgia Regional Airport (**Table 3-26**).

Of the potential passengers within the Southwest Georgia Regional Airport catchment area, 61.6 percent flew out of Hartsfield-Jackson Atlanta International Airport, 7.6 percent flew out of Orlando International Airport, 4.1 percent flew out of Jacksonville International Airport, 3.3 percent flew out of Tallahassee International Airport, and 2.8 percent flew out of Tampa International Airport (**Table 3-26**). Several other airports had one percent or less of the passengers from Augusta's catchment area, including Northwest Florida Beaches International Airport (0.9 percent), Valdosta Regional Airport (0.7 percent), and Destin-Ft. Walton Beach Airport (0.7 percent).

Figure 3-26: Southwest Georgia Regional Airport – Passenger Leakage to Alternative Airports



Source: Bing Maps.

Table 3-26: Southwest Georgia Regional Airport – Passenger Traffic to Alternative Airports, YE 1Q19

Nearby Airport	Miles Away	Drive Time	% of Total Catchment Area Traffic	Avg. Daily Domestic Departures	Avg. Daily Domestic Outbound Seats
Hartsfield-Jackson Atlanta International (ATL)	185	3:35	61.6%	1,090	153,309
Orlando International (MCO)	305	5:54	7.6%	401	67,756
Jacksonville International (JAX)	213	4:13	4.1%	98	11,915
Tallahassee International (TLH)	98	2:26	3.3%	21	1,453
Tampa International (TPA)	320	6:07	2.8%	224	34,418
Southwest Georgia Regional (ABY)	-	-	**16.3%**	**3**	**138**

Sources: Airport Data, Inc., Airport Catchment Analytics database; Bing Maps (mileage and drive time).

Passenger Destinations – Southwest Georgia Regional Airport

In addition to identifying the alternative airports being used by passengers from the Southwest Georgia Regional Airport catchment area, it is also important to understand their ultimate destination. When analyzing lost passengers, the three largest markets for passengers using an airport other than the Southwest Georgia Regional Airport for service are LaGuardia Airport, General Edward Lawrence Logan International Airport, and Chicago O'Hare International Airport.

This type of data is particularly important for an airport to be able to quantify for airline route planners. For example, and as shown in **Table 3-27**, 2,288 (10 percent) of the passengers within the catchment area who flew to New York LaGuardia Airport (LGA) flew from the Southwest Georgia Regional Airport. However, the remainder – which represents over 20,546 passengers and five percent of the potential Southwest Georgia Regional Airport market – used an alternative airport.

Table 3-27: Top 20 Markets in Southwest Georgia Regional Airport Catchment Area Using Alternative Airports, YE 1Q19

Rank	Airport	Southwest GA Regional Reported O&D Passengers	Southwest GA Regional Capture Rate	Catchment Area O&D Passengers	Lost Passengers	% of Total Lost Passengers
1	New York LaGuardia (LGA)	2,288	10.0%	22,834	20,546	5.2%
2	Boston (BOS)	1,170	7.2%	16,189	15,019	3.8%
3	Chicago O'Hare (ORD)	1,440	9.3%	15,526	14,086	3.6%
4	Los Angeles (LAX)	1,347	9.2%	14,583	13,236	3.4%
5	New York Newark (EWR)	1,470	10.3%	14,255	12,785	3.3%
6	Washington National (DCA)	4,248	25.6%	16,596	12,348	3.1%
7	Dallas/Fort Worth (DFW)	1,852	13.2%	14,031	12,179	3.1%
8	Philadelphia (PHL)	1,717	12.5%	13,773	12,056	3.1%
9	Denver (DEN)	1,399	10.4%	13,435	12,036	3.1%
10	Fort Lauderdale (FLL)	998	8.2%	12,202	11,204	2.9%
11	Baltimore (BWI)	1,773	13.8%	12,821	11,048	2.8%
12	Las Vegas (LAS)	1,660	13.2%	12,575	10,915	2.8%
13	Detroit (DTW)	1,463	12.7%	11,509	10,046	2.6%
14	Miami (MIA)	623	6.3%	9,839	9,216	2.3%
15	New York Kennedy (JFK)	647	6.6%	9,843	9,196	2.3%
16	San Juan, PR (SJU)	191	2.5%	7,737	7,546	1.9%
17	Chicago Midway (MDW)	697	8.5%	8,216	7,519	1.9%
18	Minneapolis/St. Paul (MSP)	1,392	16.3%	8,522	7,130	1.8%
19	Houston Bush (IAH)	900	11.9%	7,547	6,647	1.7%
20	San Francisco (SFO)	843	12.1%	6,945	6,102	1.6%

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

Average Fare Comparison – Southwest Georgia Regional Airport

As noted previously, price is one of the most important determinants for the consumer choosing which airport to use. When comparing average fares at the Southwest Georgia Regional Airport to those at the top three competing commercial airports, fares at the Southwest Georgia Regional Airport are consistently higher on average than those available at Hartsfield-Jackson Atlanta International Airport, Orlando International Airport, and Jacksonville International Airport (**Table 3-28**).

Table 3-28: Southwest Georgia Regional Airport – Average One-Way Fare Comparison

		Average One-Way Fare				Fare Ratio – Southwest GA Regional Versus		
Rank	Airport	Southwest GA (ABY)	Atlanta (ATL)	Orlando (MCO)	Jacksonville (JAX)	Atlanta (ATL)	Orlando (MCO)	Jacksonville (JAX)
1	New York LaGuardia (LGA)	$222	$154	$132	$164	144%	169%	136%
2	Boston (BOS)	$232	$110	$138	$136	212%	169%	171%
3	Chicago O'Hare (ORD)	$219	$135	$126	$145	163%	174%	151%
4	Los Angeles (LAX)	$315	$218	$174	$247	145%	181%	128%
5	New York Newark (EWR)	$255	$171	$116	$165	149%	219%	155%
6	Washington National (DCA)	$295	$168	$114	$132	176%	259%	223%

		Average One-Way Fare				Fare Ratio – Southwest GA Regional Versus		
Rank	Airport	Southwest GA (ABY)	Atlanta (ATL)	Orlando (MCO)	Jacksonville (JAX)	Atlanta (ATL)	Orlando (MCO)	Jacksonville (JAX)
7	Dallas/Fort Worth (DFW)	$246	$144	$146	$231	171%	168%	107%
8	Philadelphia (PHL)	$227	$142	$104	$161	160%	218%	141%
9	Denver (DEN)	$282	$154	$146	$161	183%	193%	175%
10	Fort Lauderdale (FLL)	$183	$93	$63	$79	196%	290%	231%
11	Baltimore (BWI)	$225	$110	$102	$143	205%	221%	157%
12	Las Vegas (LAS)	$337	$179	$146	$160	188%	231%	211%
13	Detroit (DTW)	$241	$133	$111	$150	182%	217%	161%
14	Miami (MIA)	$241	$121	$98	$139	200%	245%	174%
15	New York Kennedy (JFK)	$246	$152	$137	$136	162%	180%	182%

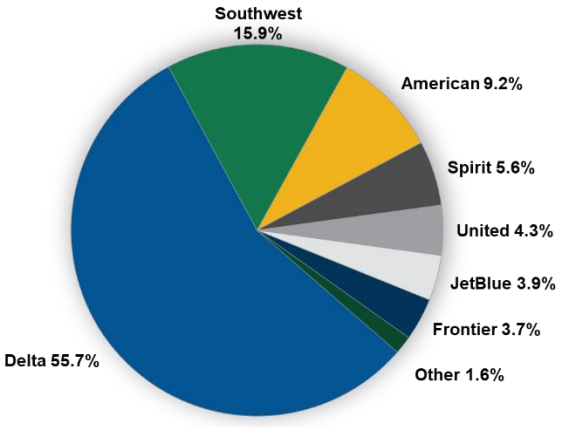
Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B).

For example, Southwest Georgia Regional Airport's average one-way fare to Washington, D.C. is $295, which is 76 percent higher than the average fare from Hartsfield-Jackson Atlanta International Airport to this destination; 159 percent higher than the average fare from Orlando International Airport; and 123 percent higher than the average fare from Jacksonville International Airport.

Leakage by Air Carrier – Southwest Georgia Regional Airport

Analyzing lost passengers by airline, Delta Air Lines captures over 55 percent of the Southwest Georgia Regional Airport catchment area passengers. This includes passengers Delta Air Lines serves out of the Southwest Georgia Regional Airport as well as passengers flying out of alternative airports also served by Delta Air Lines. The largest carrier not serving the Southwest Georgia Regional Airport but capturing passengers from within the study airport's catchment area is Southwest Airlines. Southwest serves almost sixteen percent of the Southwest Georgia Regional Airport market's catchment area passengers at alternative airports. American Airlines follows, serving a little over nine percent of the lost passengers (**Figure 3-27**).

Figure 3-27: Southwest Georgia Regional Airport – Capture by Air Carrier



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

3.6.2 Benchmarking Analysis – Southwest Georgia Regional Airport

As another element of the Statewide Air Service Study, a benchmarking study was prepared for select commercial service airports in Georgia. The purpose of a benchmarking study is to compare the performance of one airport to another similarly situated airport. For the purposes of this analysis, "similarly situated" refers to the proximity of the study airports to a large hub airport, which is a larger airport that typically offers significantly more variation in service and frequency of departures than smaller airports.

Six airports were selected for comparison as peer airports for the Southwest Georgia Regional Airport following the process described above. These peer airports include:

- Cheyenne Regional Airport (CYS), Cheyenne, WY
- Decatur Airport (DEC), Decatur, IL
- Dothan Regional Airport (DHM), Dothan, AL
- Dubuque Regional Airport (DBQ), Dubuque, IA
- McKellar-Sipes Regional Airport (MKL), Jackson, TN
- Pueblo Memorial Airport (PUB), Pueblo, CO

Study Airport and Peer Group Comparison – Economic and Demographic Indicators

The Southwest Georgia Regional Airport was compared to the six peer airports using four critical economic and demographic indicators: population, employment, GRP, and income per capita. These indicators create a collective story about the study airport's market and can be used to highlight its strengths as well as to identify potential weaknesses that may need further explanation to airlines considering new service.

Demographic and economic data was sourced from the 2010 U.S. Census and then extrapolated using forecast rates generated by Woods and Poole Economics, Inc. Data used in the analysis was for the city or county where the airport is located.

The seven airports were ranked in order from one (high score) to seven (low score) based on the economic and demographic indicators. For the purposes of the ranking exercise, each of the metrics was weighted equally (meaning, each was considered as important as another). As **Table 3-29** indicates, the Southwest Georgia Regional Airport's market compares favorably – a ranking of three or better – for Population and Employment.

Table 3-29: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators

Base Airport	2019 Population	2019 Gross Regional Product	2019 Employment	2019 Income per Capita
Southwest Georgia Regional (ABY)	**3**	**5**	**1**	**6**
Cheyenne Regional Airport (CYS)	5	3	6	1
Decatur Airport (DEC)	4	1	7	3
Dothan Regional Airport (DHM)	2	7	3	5
Dubuque Regional Airport (DBQ)	7	2	4	2
McKellar-Sipes Regional Airport (MKL)	6	4	5	4
Pueblo Memorial Airport (PUB)	1	6	2	7
	1 = High Score; 7 = Low Score			

Source Data: Woods & Poole Economics, Inc., 2019.

Study Airport and Peer Group Comparison – Key Demand, Key Supply, and Key Market Output and Connectivity Indicators

After the peer airports and the study airport were compared by demographic and economic indicators, they were then measured by key performance indicators related to air service.

Key Demand Performance Indicators

Key Demand Performance Indicators are important criteria for airlines and are associated with passenger demand at a particular airport and the profitability of its routes.

- *Average O&D Passenger Traffic per Outbound Seat:* This is the total number of O&D trips (arrivals and departures) divided by the number of outbound seats available. While the number of passenger enplanements is an important metric for airports, airlines look at the number of O&D passengers as a measure of local demand. Unlike enplaned/deplaned passenger counts, which include both local and connecting traffic, O&D figures are based on passenger itineraries which list true origins and destinations, whether the passenger flies nonstop or connects to complete the journey.
- *Average O&D Passenger Revenue per Aircraft Departure:* This indicator measures the revenue associated with an aircraft departure. It is calculated by multiplying the number of O&D passengers with the average one-way fare in each respective city-pair (origin and destination city).

Key Supply Performance Indicators

Key Supply Performance Indicators are associated with airline management of passenger seat capacity at a particular airport and the market's response in turn.

- *Average Number of Outbound Seats per Aircraft Departure:* Increases in the number of outbound seats typically indicate a trend toward the use of larger aircraft in a market.
- *Average Passenger Load Factor:* Load factor, defined by the FAA as the percentage of available seats that are filled with passengers, is a measure of passenger utilization. It is an important data point for airlines when deciding whether to increase the size of aircraft, add new service, or even reduce service.

Key Market Output and Connectivity Indicators

Key Market Output and Connectivity indicators relate to the passengers associated with the airport's market utilizing the local airport.

- *Average O&D Passenger Traffic per Capita*: Also known as "propensity to fly," Average O&D Passenger Traffic per Capita is the average number of trips taken by those who live in the airport's immediate market or metropolitan area (O&D passenger traffic divided by the population within the market). Airlines often use this metric to determine the level of future demand for travel. Propensity to fly can also inform decision-makers about what kind of service to pursue, or what other hubs in the system might better satisfy the local market's demand for different destinations.
- *Total Market Connectivity*: Total Market Connectivity describes an airport's connectivity (number of flights) to other larger airports in the system. It is often the critical variable in explaining a passenger's decision to use the local airport versus selecting an alternative airport. Connectivity for nonhub airports is particularly important since access to larger airports can provide passengers with a variety of destination choices.

Southwest Georgia Regional Airport's Ranking by Key Performance Indicators

After analyzing each indicator separately, Southwest Georgia Regional Airport's standing as compared to the six peer airports is summarized in **Table 3-30**. Rankings range from first (1) to seventh (7), with seven being the lowest ranking score.

Table 3-30: Southwest Georgia Regional Airport's Ranking by Key Performance Indicators

	Performance Metric	2014	2019
Key Demand	Average Origin & Destination Passenger Traffic per Outbound Seat	4	3
	Average Origin & Destination Passenger Revenue per Aircraft Departure	2	2
Key Supply	Average Number of Outbound Seats per Aircraft Departure	1	1
	Average Passenger Load Factor	3	2
Key Market	Average Origin & Destination Traffic per Capita/Propensity to Fly	3	3
	Total Market Connectivity/Airport Connectivity Quality Index (ACQI)	2	2
	Aggregate Rank	**2.5**	**2.2**

Source: Delta Airport Consultants, Inc., Analysis.

Among the seven airports, the Southwest Georgia Regional Airport's average ranking is 2.2, which is an improvement over its 2014 ranking. The airport's total aggregate ranking should continue to improve if the fourth departure option is implemented after the airline industry recovers from impacts due to the COVID-19 pandemic.

Promotion of any added service to potential passengers will be important for the Southwest Georgia Regional Airport to continue on its path toward providing more air service options to its community.

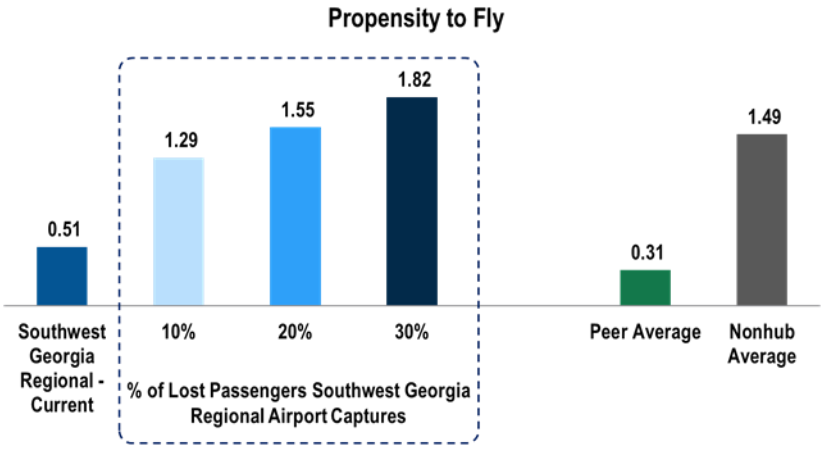
3.6.3 Sensitivity Analysis – Southwest Georgia Regional Airport

Figure 3-28 depicts the outcome of a sensitivity analysis that considers the results of the separate benchmarking and leakage analysis studies conducted for Southwest Georgia Regional Airport as part of the Georgia Statewide Air Service Study. As noted previously, the leakage analysis determined the study airport is capturing approximately 16.3 percent of the potential O&D passenger demand within its catchment area, while the annual demand is 468,000 million passenger trips.

The sensitivity analysis considers a market's propensity to fly and presents several possible scenarios in which the airport might capture a percentage of its current passenger leakage through improved service. As shown, if the Southwest Georgia Regional Airport were to capture 20 percent of its passenger leakage, then its propensity to fly would be even greater than the U.S. nonhub average.

If Delta Air Lines' fourth departure is added after the airline industry recovers from the impacts from COVID-19, it should help capture some of the lost passengers; however, the additional flight will not add enough seat capacity to be sufficient to achieve the 20 percent recapture rate.

Figure 3-28: Southwest Georgia Regional Airport – Sensitivity Analysis



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airline schedule data; Woods & Poole Economics, Inc., 2019.

3.6.4 Summary of Leakage and Benchmarking Findings for Southwest Georgia Regional Airport

The strength of demand of the Southwest Georgia Regional Airport market, as demonstrated by its above-average Key Demand Performance Indicators, supports a strong business case to airlines to consider adding service to the market. The average O&D passenger revenue per aircraft departure at Southwest Georgia Regional Airport is well above that of its peer airports and the U.S. nonhub average, which should be especially attractive to airlines. This, in addition to load factors averaging 80 percent, likely contributed to Delta Air Lines plans to add a fourth daily departure to Atlanta.

If the additional service becomes a reality when the COVID-19 pandemic ends, promotion of the fourth scheduled daily departure to Hartsfield-Jackson Atlanta International Airport to potential passengers will be important for Southwest Georgia Regional Airport to maintain the service.

The fact that Southwest Georgia Regional Airport is served by only one airline (Delta Air Lines) to one destination (Hartsfield-Jackson Atlanta International Airport) limits the ability of the airport to provide its passengers with a variety of connectivity options and price competition. Consideration could be given to marketing the airport to a second airline to increase traffic and competition.

Southwest Georgia Regional Airport currently captures only 16.3 percent of the potential passenger demand within its catchment area. The biggest hurdle it faces to retain its passenger traffic is fare pricing. Average fares at the Southwest Georgia Regional Airport are multiple times above those at alternative airports. Albany leaders should consider a “Fly Local” campaign that helps potential passengers understand the costs associated with mileage, time, and parking when choosing an alternative airport.

Given the loss of passengers to Florida airports with LCC and ULCCs, this analysis should be shared with Delta Air Lines to determine if certain pricing changes might be made to attract or retain passengers at Southwest Georgia Regional Airport. Attracting an LCC or a ULCC to Albany is unlikely since these airlines typically fly larger aircraft and look for larger O&D or leisure-oriented markets.

3.7 Valdosta Regional Airport

The Valdosta Regional Airport is owned and operated by the Valdosta-Lowndes County Airport Authority. It is situated in the southern portion of the state, four miles south of Valdosta, in Lowndes County, Georgia. As

Table 3-31 indicates, the airport currently has an average of three daily departures to Hartsfield-Jackson Atlanta International Airport by Delta Air Lines. Delta Air Lines announced plans to add a fourth scheduled daily departure in June 2020.[26] However, this plan is uncertain due to impacts on the airline industry from the COVID-19 pandemic.

Table 3-31: Air Service at Valdosta Regional Airport

Airport	Carrier	Average Daily Departures	Average Daily Outbound Seats
Hartsfield-Jackson Atlanta International (ATL)	Delta Air Lines	3	142

Source: Airline Data, Inc., Airline schedule data.

3.7.1 Leakage Analysis – Valdosta Regional Airport

The primary catchment area for the Valdosta Regional Airport (**Figure 3-29**) encompasses a population of over 370,000.[27] For this analysis, the catchment area is composed of zip codes falling within a 60-mile radius of, or roughly a 60-minute drive from, the study airport.

In the 12-month period ending March 2019, there were 82,429 O&D passengers from within the catchment area who used the Valdosta Regional Airport.[28] O&D figures include both enplaned and deplaned passengers. For nonhub airports similar to the study airport, there is little-to-no connecting traffic; therefore, half the number of O&D passengers is roughly equivalent to the number of enplaned passengers.

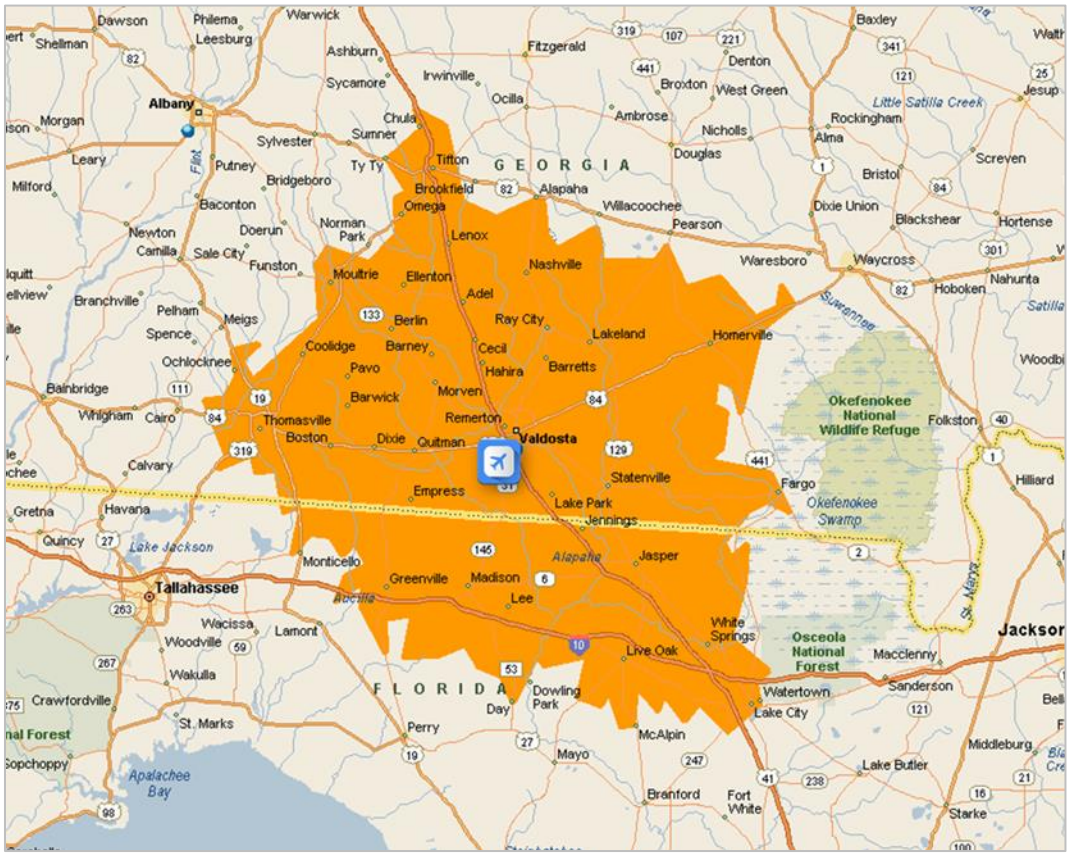
An analysis of Airport Catchment Analytics data from Airline Data, Inc., shows that 758,275 O&D passengers (enplaned and deplaned) within the catchment area purchased airline tickets in the same 12-month period. This means that the Valdosta Regional Airport currently captures 82,429, or 10.9 percent, of the potential 758,275 air traveler trips in its catchment area; the remaining 89.1 percent of the trips depart from another airport. On a positive note, this demonstrates there is opportunity available for Delta Air Lines' new daily service at Valdosta Regional Airport, if it becomes a reality after the COVID-19 pandemic ends.

[26] Elizabeth Wolf, "Delta increases service between Atlanta, key regional airports throughout Georgia," Delta News Hub, Delta Airlines, Inc., posted December 8, 2019, https://news.delta.com/delta-increases-service-between-atlanta-key-regional-airports-throughout-georgia.

[27] 2010 Census, United States Census Bureau. Data has been adjusted using population growth rates from Woods & Poole Economics, Inc.

[28] U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airport Catchment Analytics database.

Figure 3-29: Valdosta Regional Airport Catchment Area



Source: Microsoft MapPoint.

Five commercial airports capture the predominant share of the lost or "leaked" passengers associated with the Valdosta Regional Airport: Hartsfield-Jackson Atlanta International Airport (ATL), which is 228 miles from the study airport; Orlando International Airport (MCO), which is 220 miles from the study airport; Tallahassee International Airport (TLH), which is 93 miles away from the study airport; Jacksonville International Airport (JAX), which is 128 miles from the study airport; and, Tampa International Airport (TPA), which is 235 miles away from the study airport (**Figure 3-30**). Each of these airports has more scheduled airline service than Valdosta Regional Airport (**Table 3-32**).

Highways are typically the first access point to the air transportation grid for travelers. With so many passengers willing to drive longer distances to an airport with more service and lower fares, airports in Florida are increasingly attracting passengers from Georgia airport markets.

Of the potential passengers within the Valdosta Regional Airport catchment area, 28.9 percent flew out of Hartsfield-Jackson Atlanta International Airport, 17.2 percent flew out of Orlando International Airport, 14.6 percent flew out of Tallahassee International Airport, 13.2 percent flew out of Jacksonville International Airport, and 8.2 percent flew out of Tampa International Airport (**Table 3-32**). Several other Florida airports have less than two percent each of the passengers from Valdosta's catchment area, including Gainesville Regional (1.4 percent), Northwest Florida Beaches International (1.1 percent), Orlando Sanford International (0.9 percent), St. Pete Clearwater International (0.8 percent), and Destin Fort Walton Beach (0.7 percent). Savannah/Hilton Head International captures 0.6 percent.

Figure 3-30: Valdosta Regional Airport – Passenger Leakage to Alternative Airports

Source: Bing Maps.

Table 3-32: Passenger Traffic to Alternative Airports, YE 1Q19

Nearby Airport	Miles Away	Drive Time	% of Total Catchment Area Traffic	Avg. Daily Domestic Departures	Avg. Daily Domestic Outbound Seats
Hartsfield-Jackson Atlanta International Airport (ATL)	228	4:03	28.91%	1,090	153,309
Orlando International Airport (MCO)	220	3:56	17.15%	401	67,756
Tallahassee International Airport (TLH)	93	2:01	14.64%	21	1,453
Jacksonville International Airport (JAX)	128	2:19	13.18%	98	11,915
Tampa International Airport (TPA)	235	4:11	8.15%	224	34,418
Valdosta Regional Airport (VLD)	-	-	**10.88%**	**3**	**142**

Sources: Airport Data, Inc., Airport Catchment Analytics database; Bing Maps (mileage and drive time).

Passenger Destinations – Valdosta Regional Airport

In addition to identifying the alternative airports being used by passengers in the Valdosta Regional Airport catchment area, it is also important to understand their ultimate destination. When analyzing lost passenger traffic, the top origin and destination market for travelers is New York.

This type of data is particularly important for an airport to be able to quantify for airline route planners. For example, and as shown in **Table 3-33**, 1,660 (4.3 percent) passengers within the catchment area who flew to New York's LaGuardia Airport (LGA), departed from Valdosta Regional Airport. However, the remainder – which represents over 36,000 passengers and almost five percent of the potential passengers for the Valdosta Regional Airport – used an alternative airport.

Table 3-33: Top 20 Markets in Valdosta Regional Airport Catchment Area Using Alternative Airports, YE 1Q19

Rank	Airport	Valdosta Regional Reported O&D Passengers	Valdosta Regional Capture Rate	Catchment Area O&D Passengers	Lost Passengers	% of Total Lost Passengers
1	New York LaGuardia (LGA)	1,660	4.3%	38,355	36,695	4.6%
2	Las Vegas (LAS)	2,329	6.5%	35,919	33,590	4.2%
3	Washington National (DCA)	1,807	5.7%	31,573	29,766	3.7%
4	Los Angeles (LAX)	1,503	5.0%	30,114	28,611	3.6%
5	Boston (BOS)	1,297	4.4%	29,513	28,216	3.5%
6	Denver (DEN)	1,659	5.8%	28,819	27,160	3.4%
7	Chicago O'Hare (ORD)	1,441	5.1%	28,256	26,815	3.3%
8	San Juan, PR (SJU)	9	0.0%	26,637	26,628	3.3%
9	New York Newark (EWR)	1,109	4.1%	26,957	25,848	3.2%
10	Dallas/Fort Worth (DFW)	2,454	9.9%	24,869	22,415	2.8%
11	Miami (MIA)	452	2.0%	22,208	21,756	2.7%
12	Philadelphia (PHL)	2,136	9.1%	23,563	21,427	2.7%
13	New York Kennedy (JFK)	501	2.3%	21,680	21,179	2.6%
14	Baltimore (BWI)	1,942	9.8%	19,909	17,967	2.2%
15	Detroit (DTW)	1,545	9.2%	16,777	15,232	1.9%
16	San Francisco (SFO)	1,025	6.4%	15,903	14,878	1.9%
17	Fort Lauderdale (FLL)	411	2.8%	14,491	14,080	1.8%
18	Phoenix (PHX)	1,211	8.1%	14,895	13,684	1.7%
19	Seattle (SEA)	1,453	10.0%	14,524	13,071	1.6%
20	Chicago Midway (MDW)	896	6.8%	13,100	12,204	1.5%

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

Average Fare Comparison – Valdosta Regional Airport

As noted previously, price is one of the most important determinants for the consumer choosing which airport to use. When comparing average fares at the Valdosta Regional Airport to those at the top three competing commercial airports, fares at the Valdosta Regional Airport are generally higher on average than those available at Hartsfield-Jackson Atlanta International Airport, Orlando International Airport, and Tallahassee International Airport (**Table 3-34**).

Table 3-34: Valdosta Regional Airport – Average One-Way Fare Comparison

		Average One-Way Fare				Fare Ratio – Valdosta Regional Versus		
Rank	Airport	Valdosta (VLD)	Atlanta (ATL)	Orlando (MCO)	Tallahassee (TLH)	Atlanta (ATL)	Orlando (MCO)	Tallahassee (TLH)
1	New York LaGuardia (LGA)	$248	$154	$132	$237	160%	188%	105%
2	Las Vegas (LAS)	$370	$179	$146	$291	207%	254%	127%
3	Washington National (DCA)	$286	$168	$114	$218	170%	251%	131%
4	Los Angeles (LAX)	$370	$218	$174	$310	170%	212%	119%
5	Boston (BOS)	$251	$110	$138	$240	229%	182%	105%
6	Denver (DEN)	$276	$154	$146	$273	179%	189%	101%
7	Chicago O'Hare (ORD)	$248	$135	$126	$247	184%	197%	100%

		Average One-Way Fare				Fare Ratio – Valdosta Regional Versus		
Rank	Airport	Valdosta (VLD)	Atlanta (ATL)	Orlando (MCO)	Tallahassee (TLH)	Atlanta (ATL)	Orlando (MCO)	Tallahassee (TLH)
8	San Juan, PR (SJU)	N/A	$171	$118	$217	-	-	-
9	New York Newark (EWR)	$241	$171	$116	$243	140%	207%	99%
10	Dallas/Fort Worth (DFW)	$254	$144	$146	$260	176%	174%	97%
11	Miami (MIA)	$241	$121	$98	$213	199%	245%	113%
12	Philadelphia (PHL)	$265	$142	$104	$253	186%	254%	105%
13	New York Kennedy (JFK)	$246	$152	$137	$219	162%	180%	112%
14	Baltimore (BWI)	$280	$110	$102	$225	256%	275%	125%
15	Detroit (DTW)	$249	$133	$111	$236	188%	225%	106%

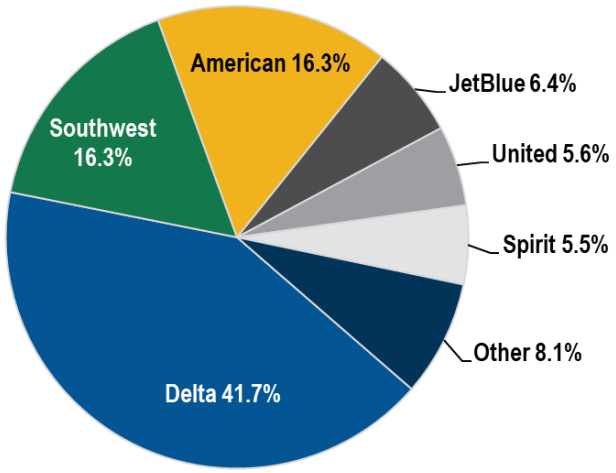
Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B).

For example, the Valdosta Regional Airport's average one-way fare to Los Angeles International Airport (LAX) is $370, which is 70 percent higher than the average fare from Hartsfield-Jackson Atlanta Airport to this destination, 112 percent higher than the average fare from Orlando International Airport, and 19 percent higher than the average fare from Tallahassee International Airport.

Leakage by Air Carrier – Valdosta Regional Airport

Analyzing the study airport's "leaked" passengers served by airline, Delta Air Lines captures 41.7 percent of the Valdosta Regional Airport catchment area passengers. This includes passengers using Delta service from the Valdosta Regional Airport, as well as passengers flying out of alternative airports also served by Delta Air Lines. The two largest carriers not serving the Valdosta Regional Airport but capturing passengers from within the study airport's catchment area, are Southwest Airlines and American Airlines, each of which serves 16.3 percent of the Valdosta Regional Airport's catchment area passengers (**Figure 3-31**).

Figure 3-31: Valdosta Regional Airport Catchment Area – Capture by Air Carrier



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B);
Airport Data, Inc., Airport Catchment Analytics database.

3.7.2 Benchmarking Analysis – Valdosta Regional Airport

As another element of the Statewide Air Service Study, Georgia Department of Transportation (GDOT) prepared a benchmarking study for select airports in its airspace system. The purpose of a benchmarking study is to compare the performance of one airport to another similarly situated airport. For the purposes of this analysis, "similarly situated" refers to the proximity of the study airports to a large hub airport, which is a larger airport that typically offers significantly more variation of service and frequency of departures than smaller airports can offer.

Six airports were selected for comparison as peer airports for the Valdosta Regional Airport following the process described above. These peer airports include:

- Coastal Carolina Regional Airport (EWN), New Bern, NC
- Ithaca Tompkins Regional Airport (ITH), Ithaca, NY
- Lawton-Fort Sill Regional Airport (LAW), Lawton, OK
- McKellar-Sipes Regional Airport (MKL), Jackson, TN
- Northwest Alabama Regional Airport (MSL), Muscle Shoals, AL
- Williamsport Regional Airport (IPT), Williamsport, PA

Study Airport and Peer Group Comparison – Economic and Demographic Indicators

Valdosta Regional Airport was compared to the six peer airports using four economic and demographic indicators: population, employment, GRP, and income per capita. These indicators create a collective story about the study airport's market and can be used to highlight its strengths as well as to identify potential weaknesses that may need further explanation to airlines considering new service.

Demographic and economic data was sourced from the 2010 U.S. Census and then extrapolated using forecast rates generated by Woods and Poole Economics, Inc. Data used in the analysis was for the city or county where the airport is located.

The seven airports were ranked in order from one (high score) to seven (low score) based on the economic and demographic indicators. For the purposes of the ranking exercise, each of the metrics was weighted equally (meaning, each was considered as important as another). As **Table 3-35** indicates, the Valdosta Regional Airport's market compares favorably – a ranking of three or better – to its peers in all categories, with the exception of income per capita.

Table 3-35: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators

Base Airport	2019 Population	2019 Gross Regional Product	2019 Employment	2019 Income per Capita
Valdosta Regional Airport (VLD)	**2**	**3**	**1**	**7**
Coastal Carolina Regional Airport (EWN)	4	5	7	1
Ithaca Tompkins Regional Airport (ITH)	6	2	4	2
Lawton-Fort Sill Regional Airport (LAW)	3	6	6	5
McKellar-Sipes Regional Airport (MKL)	7	1	3	3
Northwest Alabama Regional Airport (MSL)	1	4	2	6
Williamsport Regional Airport (IPT)	5	7	5	4
	1 = High Score; 7 = Low Score			

Source Data: Woods & Poole Economics, Inc., 2019.

Study Airport and Peer Group Comparison – Key Demand, Key Supply, and Key Market Output and Connectivity Indicators

After the peer airports and the study airport were compared by demographic and economic indicators, they were then measured by key performance indicators related to air service.

Key Demand Performance Indicators

Key Demand Performance Indicators are important criteria for airlines and are associated with passenger demand at a particular airport and the profitability of its routes.

- *Average O&D Passenger Traffic per Outbound Seat:* While the number of passenger enplanements is an important metric for airports, airlines look at the number of O&D passengers as a measure of local demand. Unlike enplaned/deplaned passenger counts, which include both local and connecting traffic, O&D figures are based on passenger itineraries which list true origins and destinations, whether the passenger flies nonstop or connects to complete the journey.
- *Average O&D Passenger Revenue per Aircraft Departure:* This indicator measures the revenue associated with an aircraft departure. It is calculated by multiplying the number of O&D passengers with the average one-way fare in each respective city-pair (origin and destination city).

Key Supply Performance Indicators

Key Supply Performance Indicators are associated with airline management of passenger seat capacity at a particular airport and the market's response in turn.

- *Average Number of Outbound Seats per Aircraft Departure:* Increases in the number of outbound seats typically indicate a trend toward the use of larger aircraft in a market.
- *Average Passenger Load Factor:* Load factor, defined by the FAA as the percentage of available seats that are filled with passengers, is a measure of passenger utilization. It is an important data point for airlines when deciding whether to increase the size of aircraft, add new service, or even reduce service.

Key Market Output and Connectivity Indicators

Key Market Output and Connectivity indicators relate to the passengers associated with the airport's market utilizing the local airport.

- *Average O&D Passenger Traffic per Capita*: Also known as "propensity to fly," Average O&D Passenger Traffic per Capita is the average number of trips taken by those who live in the airport's immediate market or metropolitan area (O&D passenger traffic divided by the population within the market). Airlines often use this metric to determine the level of future demand for travel. Propensity to fly can also inform decision-makers about what kind of service to pursue, or what other hubs in the system might better satisfy the local market's demand for different destinations.
- *Total Market Connectivity*: Total Market Connectivity describes an airport's connectivity (number of flights) to other larger airports in the system. It is often the critical variable in explaining a passenger's decision to use the local airport versus selecting an alternative airport. Connectivity for nonhub airports is particularly important since access to larger airports can provide passengers with a variety of destination choices.

Valdosta Regional Airport's Ranking by Key Performance Indicators

After analyzing each indicator separately, Valdosta Regional Airport's standing as compared to the six peer airports is summarized in **Table 3-36**. Rankings range from first (1) to seventh (7), with seven being the lowest ranking score.

Table 3-36: Valdosta Regional Airport's Ranking by Key Performance Indicators

	Performance Metric	2014	2019
Key Demand	Average Origin & Destination Passenger Traffic per Outbound Seat	3	2
	Average Origin & Destination Passenger Revenue per Aircraft Departure	1	1
Key Supply	Average Number of Outbound Seats per Aircraft Departure	1	4
	Average Passenger Load Factor	4	1
Key Market	Average Origin & Destination Traffic per Capita/Propensity to Fly	4	4
	Total Market Connectivity/Airport Connectivity Quality Index (ACQI)	3	3
	Aggregate Rank	**2.7**	**2.5**

Source: Delta Airport Consultants, Inc., Analysis.

Among the seven airports, the Valdosta Regional Airport's average ranking is 2.5, which is a slight improvement over its 2014 ranking. The airport's total aggregate ranking should continue to improve if the planned fourth departure option is implemented after the airline industry recovers from impacts due to the COVID-19 pandemic.

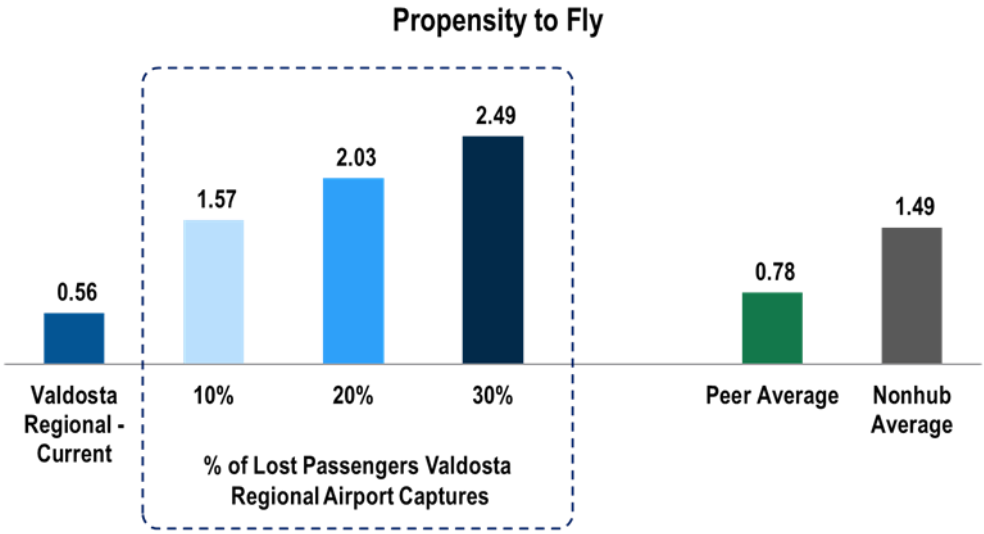
Promotion of the newly added service to potential passengers will be important for the Valdosta Regional Airport to continue on its path toward securing more air service options for its community.

3.7.3 Sensitivity Analysis – Valdosta Regional Airport

Figure 3-32 depicts the outcome of a sensitivity analysis that considers the results of the separate benchmarking and leakage analysis studies conducted for Valdosta Regional Airport as part of the Georgia Statewide Air Service Study. As noted previously, the leakage analysis determined the study airport is capturing approximately 10.9 percent of the potential O&D passenger demand within its catchment area, while the annual demand is a little over 758,000 passenger trips.

The sensitivity analysis considers a market's propensity to fly and presents several possible scenarios in which the airport might capture a percentage of its current passenger leakage through improved service. As shown, if the Valdosta Regional Airport were to capture 10 percent of its estimated passenger leakage, then its propensity to fly would be even greater than the peer average and the U.S. nonhub average. The planned fourth departure frequency would help capture some of the lost passengers.

Figure 3-32: Valdosta Regional Airport – Sensitivity Analysis



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airline schedule data; Woods & Poole Economics, Inc., 2019.

3.7.4 Summary of Leakage and Benchmarking Findings for Valdosta Regional Airport

The strength of passenger demand in the Valdosta Regional Airport market, as demonstrated by its above-average Key Demand Performance Indicators, supports a strong business case to airlines that might consider adding service to the market. The average O&D passenger revenue per aircraft departure at Valdosta Regional Airport is well above that of its peer airports and the U.S. nonhub average, which should be especially attractive to airlines considering new or improved service. This, in addition to load factors averaging 84 percent, likely contributed to Delta Air Lines' plans to add a fourth daily departure to Atlanta.

If the additional fourth departure becomes a reality when the COVID-19 pandemic ends, promotion of the planned, fourth scheduled daily departure to Hartsfield-Jackson Atlanta International Airport to potential passengers will be important for Valdosta Regional Airport to maintain both the existing and additional service.

The fact that the Valdosta Regional Airport is served by only one airline (Delta Air Lines) to one destination (Hartsfield-Jackson Atlanta International Airport) limits the ability of the airport to provide its passengers with a variety of service options, other than what is offered through Hartsfield-Jackson Atlanta International Airport. The airport's air service proponents may consider marketing the airport to a second airline to increase traffic and competition. As American Airlines adds gates at Charlotte Douglas International Airport, making a case to that airline could make sense.

Valdosta Regional Airport currently captures 10.9 percent of the potential passengers within its catchment area. The biggest hurdle the airport currently faces to retain its passenger traffic is ticket fares. The loss of passengers from its catchment area also underscores how far people will drive to find the cheapest airfare. Valdosta leaders should consider a "Fly Local" campaign that helps potential passengers understand the costs associated with mileage, time, and parking when choosing an alternative airport.

Nearly 60 percent of the study airport's catchment area passengers are utilizing an alternative airport located in Florida. The passenger traffic lost by Valdosta Regional Airport to Florida airports should be countered with a "Fly Georgia" campaign. Other Georgia commercial airports may also benefit from a similar marketing campaign undertaken by the State of Georgia.

Given the loss of passengers to low-cost and ultra-low-cost carriers operating at airports in Florida, this analysis should be shared with Delta Air Lines to determine if certain pricing changes might be made to encourage passengers to use Valdosta Regional Airport versus driving to an alternative airport and often choosing another airline. A conversation with Delta about different pricing for certain markets that are of strategic importance to this carrier would likely aid in stemming some of the passengers lost to alternative airports and airlines in Florida. Additional pricing actions would also ensure the success of the planned new departure scheduled to be added in 2020 (if it becomes a reality after the COVID-19 pandemic ends). Attracting an LCC or ULCC to the Valdosta market is unlikely since these airlines typically fly larger aircraft and look for larger O&D markets or markets that have a more leisure orientation than Valdosta.

3.8 Middle Georgia Regional Airport

The Middle Georgia Regional Airport is a county-owned airport situated in the central portion of the state, 10 miles south of Macon, in Bibb County, Georgia. As stated previously, the study airport is a nonhub airport that receives limited commercial air service from Contour Airlines. Current service is supported with operating subsidies from the United States Department of Transportation's (USDOT's) Essential Air Service (EAS) program.[29] For a portion of 2014, the study airport had EAS subsidized service to Orlando International and Atlanta. This service was provided by Silver Airways; however, service ceased the same year when Silver Airways requested to be released from their contract early, citing low passenger demand and pilot shortages as their reason for discontinuing operations.[30] The Middle Georgia Regional Airport had no commercial air service again until August 2017, when service was reinstated through Contour.

As **Table 3-37** indicates, the airport currently has an average of two daily departures to Baltimore-Washington International Thurgood Marshall Airport. There are currently no agreements (such as a codeshare or interline agreement) between Contour Airlines and another airline to provide connecting service between Macon and other markets via Baltimore; therefore, passengers have no seamless connecting options through the Contour Airlines service. In addition to its regularly scheduled flights to Baltimore, Contour Airlines briefly offered a seasonal flight to and from Tampa, Florida between December 2018 and February 2019.[31]

Table 3-37: Air Service at Middle Georgia Regional Airport

Airport	Carrier	Average Daily Departures	Average Daily Outbound Seats
Baltimore-Washington International Thurgood Marshall Airport (BWI)	Contour Airlines	2	51

Source: Airline Data, Inc., Airline schedule data.

3.8.1 Market Potential Analysis – Middle Georgia Regional Airport

As part of the Statewide Air Service Study, GDOT prepared a leakage report for five of its nonhub airports with scheduled commercial service. A similar, smaller scale "estimate of potential market size" analysis was completed for the Middle Georgia Regional Airport, as it offers limited commercial air service which is federally subsidized.

[29] Rachel Gambill, "Macon-Bibb County and Contour Airlines announce nonstop service to Washington D.C. Area," MaconBibb News, Macon-Bibb County, posted July 14, 2017, http://www.maconbibb.us/contourairlines/.
[30] Jim Gaines, "Silver Airways seeks to leave Macon service," The Telegraph, posted August 18, 2014, https://www.macon.com/news/local/article30138135.html.
[31] Stanley Dunlap, "Airline announces new flights to a tourist destination from the Macon Airport," The Telegraph, posted October 3, 2018, https://www.macon.com/news/local/article219371070.html.

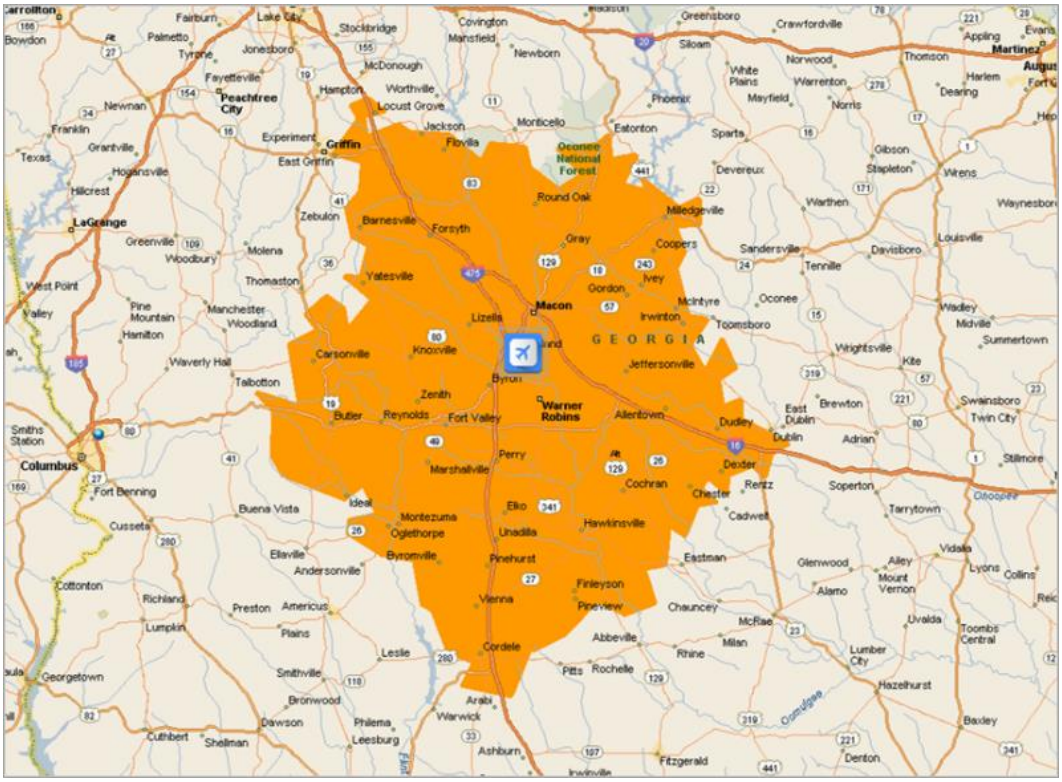
60-Mile Catchment Area: Passenger Analysis

The primary catchment area for the Middle Georgia Regional Airport (**Figure 3-33**) encompasses a population of over 660,000.[32] For this analysis, the catchment area is composed of zip codes falling within a 60-mile radius of, or roughly a 60-minute drive from, the study airport.

In the 12-month period ending March 2019, there were 9,495 O&D passengers from the catchment area who used the Middle Georgia Regional Airport.[33] As stated previously, O&D figures include both enplaned and deplaned passengers. For nonhub airports, there is little-to-no connecting traffic; therefore, half the number of O&D passengers is roughly the number of enplaned passengers.

An analysis of Airport Catchment Analytics data from Airline Data, Inc., shows that 873,775 O&D passengers (enplaned and deplaned) within the catchment area purchased airline tickets in the same 12-month period. This means that the Middle Georgia Regional Airport currently captures 9,495 or 1.1 percent of the potential 873,775 air traveler trips in its catchment area; the majority of the remaining 98.9 percent originate from Hartsfield-Jackson Atlanta International Airport.

Figure 3-33: Middle Georgia Regional Airport 60-Mile Catchment Area



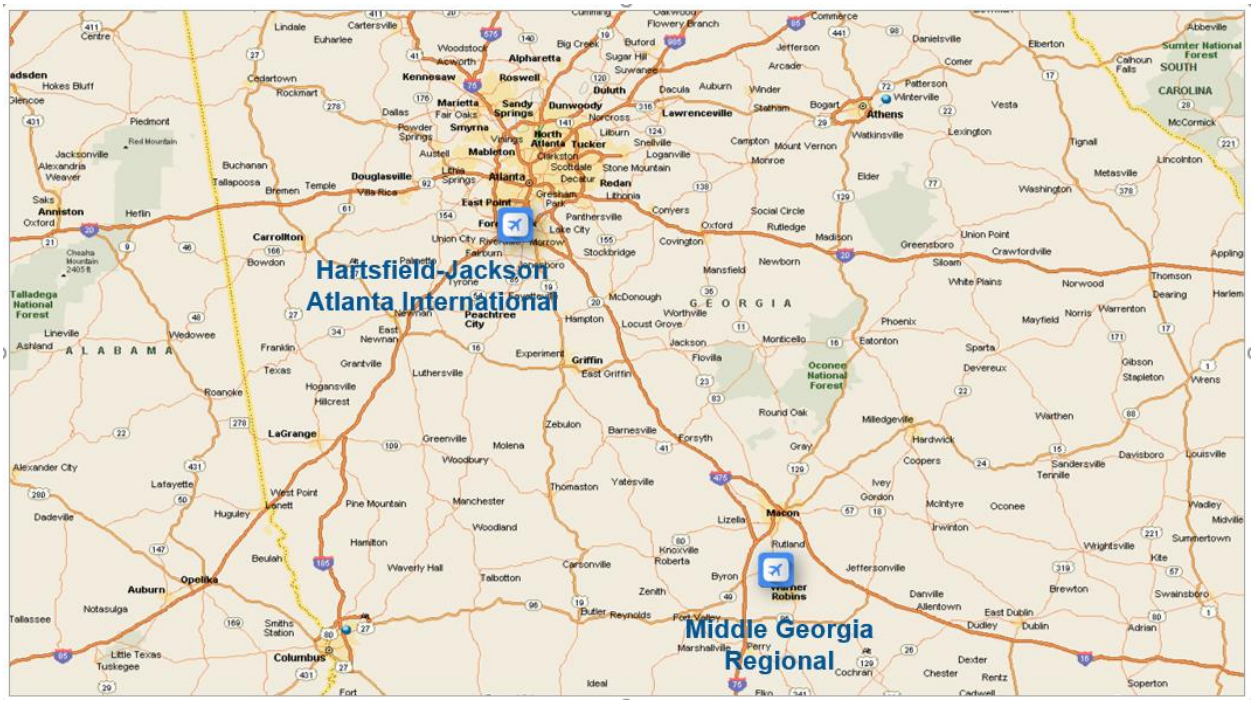
Source: Microsoft MapPoint.

Hartsfield-Jackson Atlanta International Airport is 92 miles from the study airport (**Figure 3-34**). This major hub has significantly more daily departures and destinations than the Middle Georgia Regional Airport (**Table 3-38**). Highways are typically the first access point to the air transportation grid for travelers, and interstate access

[32] 2010 Census, United States Census Bureau. Data has been adjusted using population growth rates from Woods & Poole Economics, Inc.
[33] U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airport Catchment Analytics database.

from the Middle Georgia Regional Airport market to Hartsfield-Jackson Atlanta International Airport is excellent. Furthermore, travelers are able to avoid significant levels of urban highway traffic because Macon and Hartsfield-Jackson Atlanta Airport are both situated to the south of Atlanta. With so many passengers willing to drive longer distances to an airport with more service, Hartsfield-Jackson Atlanta International Airport is attracting most of the passengers from the Middle Georgia Regional Airport market area. Of the potential passengers within the Middle Georgia Regional Airport catchment area, 97.3 percent flew out of Hartsfield-Jackson Atlanta International Airport (**Table 3-38**).

Figure 3-34: Middle Georgia Regional Airport Proximity to Hartsfield-Jackson Atlanta International Airport



Source: Microsoft MapPoint.

Table 3-38: Passenger Traffic to Alternative Airport, YE 1Q19

Nearby Airport	Miles Away	Drive Time	% of Total Catchment Area Traffic	Avg. Daily Domestic Departures	Avg. Daily Domestic Outbound Seats
Hartsfield-Jackson Atlanta International (ATL)	92	1:48	97.3%	1,090	153,309
Middle Georgia Regional (MCN)	**-**	**-**	**1.1%**	**2**	**51**

Sources: Airport Data, Inc., Airport Catchment Analytics database; Bing Maps (mileage and drive time).

60-Mile Catchment Area: Passenger Destinations

When considering demand levels within the Middle Georgia Regional Airport's market area, it is also important to understand the ultimate destination of its lost passengers, or passengers that choose another airport for their departure. This type of data is particularly important for an airport to be able to quantify for airline route planners.

The top five largest markets for passengers from the Middle Georgia Regional Airport's catchment area using Hartsfield-Jackson Atlanta International Airport are New York, Orlando, Boston, Fort Lauderdale, and Chicago (**Table 3-39**). One of the biggest reasons for passenger leakage to Hartsfield Jackson Atlanta International Airport is due to the fact that service from the Middle Georgia Regional Airport to Baltimore-Washington

International Thurgood Marshall Airport on Contour Airlines has no seamless connecting service opportunities to other destinations.

Table 3-39: Top Five Markets in Middle Georgia Regional Airport Catchment Area Using Alternative Airports, YE 1Q19

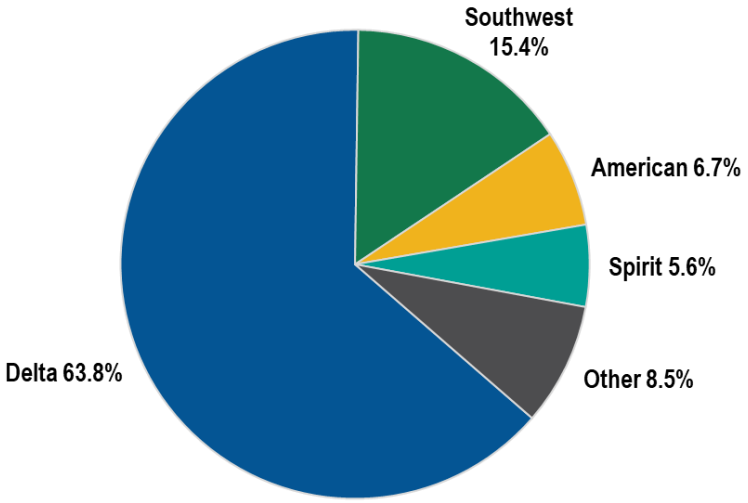
Rank	Airport	Middle GA Regional Reported O&D Passengers	Middle GA Regional Capture Rate	Catchment Area O&D Passengers	Lost Passengers	% of Total Lost Passengers
1	New York LaGuardia (LGA)	-	-	44,022	44,022	5.09%
2	Orlando (MCO)	-	-	31,925	31,925	3.69%
3	Boston (BOS)	-	-	29,727	29,727	3.44%
4	Fort Lauderdale (FLL)	-	-	29,068	29,068	3.36%
5	Chicago O'Hare (ORD)	-	-	28,151	28,151	3.26%

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

60-Mile Catchment Area: Air Carrier Competition

Analyzing airline usage provides insight into which carriers are competing for passengers associated with the Middle Georgia Regional Airport's catchment area. Delta Air Lines captures over 60 percent of the study airport's passengers. Southwest Airlines is the next largest carrier and captures over 15 percent. The next two largest carriers are American Airlines and Spirit Airlines, who capture 6.7 percent and 5.6 percent of the catchment area passengers, respectively (**Figure 3-35**).

Figure 3-35: Middle Georgia Regional Airport Catchment Area – Capture by Air Carrier

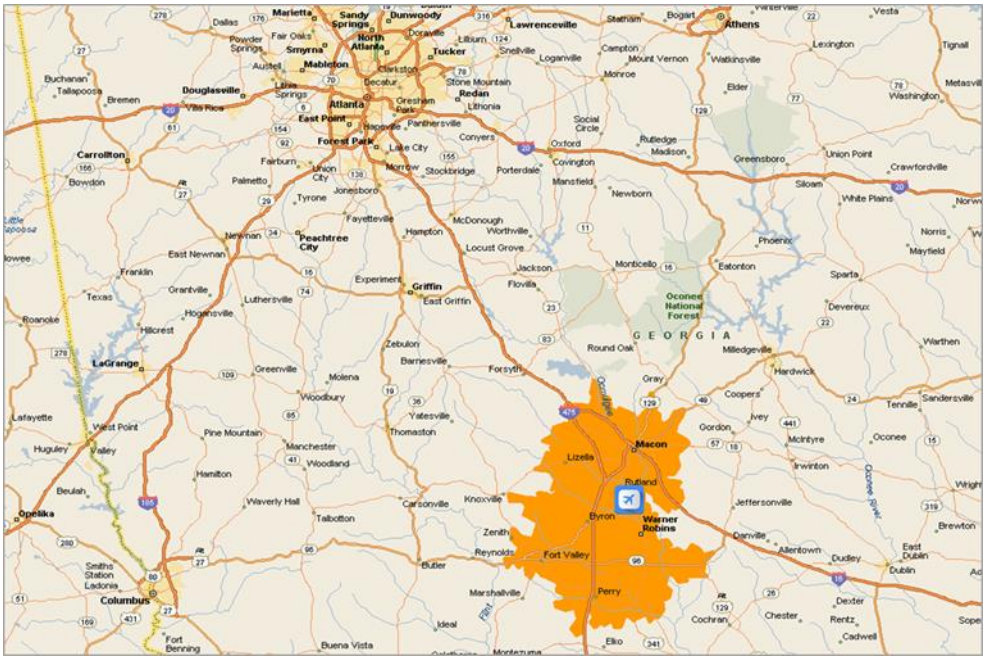


Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B);
Airport Data, Inc., Airport Catchment Analytics database.

30-Mile Catchment Area: Passenger Analysis

Because of Middle Georgia Regional Airport's proximity to Hartsfield-Jackson Atlanta International Airport, this study also provides an additional analysis using a 30-mile radius catchment area (**Figure 3-36**). A 30-mile catchment area for the Middle Georgia Regional Airport encompasses a population of over 358,000.[34]

Figure 3-36: Middle Georgia Regional Airport 30-Mile Catchment Area



Source: Microsoft MapPoint.

In the 12-month period ending March 2019 (YE 1Q19), there were 487,555 O&D passengers (enplaned and deplaned) within the Middle Georgia Regional Airport 30-mile catchment area who purchased airline tickets.[35] Middle Georgia Regional Airport captured 1.9 percent of the 487,555 O&D passengers. Similar to the breakdown of potential passengers within the 60-mile catchment area, almost 97 percent flew out of Hartsfield-Jackson Atlanta International Airport.[36]

30-Mile Catchment Area: Passenger Destinations

The top five markets for travelers associated with the Middle Georgia Regional Airport's 30-mile catchment area using Hartsfield-Jackson Atlanta International Airport were identical to the 60-mile catchment area: New York, Orlando, Boston, Fort Lauderdale, and Chicago (**Table 3-40**).

[34] 2010 Census, United States Census Bureau. Data has been adjusted using population growth rates from Woods & Poole Economics, Inc.
[35] U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airport Catchment Analytics database.
[36] Airline Data, Inc., Airport Catchment Analytics database.

Table 3-40: Top Five Markets in Middle Georgia Regional Airport 30-Mile Catchment Area Using Alternative Airports, YE 1Q19

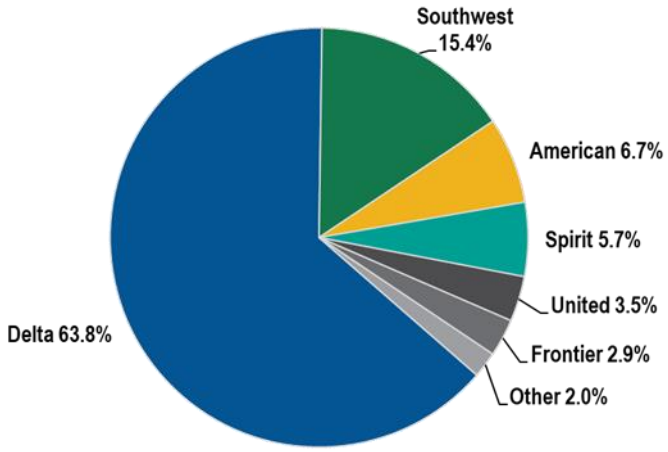
Rank	Airport	Middle GA Regional Reported O&D Passengers	Middle GA Regional Capture Rate	Catchment Area O&D Passengers	Lost Passengers	% of Total Lost Passengers
1	New York LaGuardia (LGA)	-	-	24,141	24,141	5.05%
2	Orlando (MCO)	-	-	17,337	17,337	3.63%
3	Boston (BOS)	-	-	16,709	16,709	3.50%
4	Fort Lauderdale (FLL)	-	-	15,905	15,905	3.33%
5	Chicago O'Hare (ORD)	-	-	15,884	15,884	3.32%

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

30-Mile Catchment Area: Air Carrier Competition

Delta Air Lines captures almost 64 percent of the study airport's market within the 30-mile catchment area. Southwest Airlines captures a little more than 15 percent (**Figure 3-37**).

Figure 3-37: Middle Georgia Regional Airport 30-Mile Catchment Area – Capture by Air Carrier



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

3.8.2 Benchmarking Analysis – Middle Georgia Regional Airport

As another element of the Statewide Air Service Study, a benchmarking study was prepared for select commercial service airports in Georgia. The purpose of a benchmarking study is to compare the performance of one airport to another similarly situated airport. For the purposes of this analysis, "similarly situated" refers to the proximity of the study airports to a large hub airport, which is a larger airport that typically offers significantly more variation in service and frequency of departures than smaller airports.

Six airports were selected for comparison as peer airports for the Middle Georgia Regional Airport following the process described above. These peer airports include:

- Central Illinois Regional Airport (BMI), Bloomington, IL
- Easterwood Airport (CLL), College Station, TX
- Lynchburg Regional Airport (LYH), Lynchburg, VA
- Newport News/Williamsburg International Airport (PHF), Newport News, VA
- Range Regional Airport (HIB), Hibbing, MN
- St. Cloud Regional Airport (STC), St. Cloud, MN

Study Airport and Peer Group Comparison – Economic and Demographic Indicators

The Middle Georgia Regional Airport was compared to the six peer airports using four economic and demographic indicators: population, employment, GRP, and income per capita. These indicators create a collective story about the study airport's market and can be used to highlight its strengths, as well as identify potential weaknesses that may need further explanation to airlines considering new service.

Demographic and economic data was sourced from the 2010 U.S. Census and then extrapolated using forecast rates generated by Woods and Poole Economics, Inc. Data used in the analysis was for the city or county where the airport is located.

The seven airports were ranked in order from one (high score) to seven (low score) based on the economic and demographic indicators. For the purposes of the ranking exercise, each of the metrics was weighted equally (meaning, each was considered as important as another). As **Table 3-41** indicates, the Middle Georgia Regional Airport market has the most favorable ranking (three or better) in 2019 Population. Although the study airport lags most peer airports in three of four metrics, one of the major employers in its market is Robins Air Force Base. U.S. Department of Defense and military demand for travel to Macon is one of the reasons the service to Baltimore-Washington International Thurgood Marshall Airport has been successful.

Table 3-41: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators

Base Airport	2019 Population	2019 Gross Regional Product	2019 Employment	2019 Income per Capita
Middle Georgia Regional Airport (MCN)	**3**	**6**	**4**	**5**
Central Illinois Regional Airport (BMI)	7	2	7	1
Easterwood Airport (CLL)	2	4	1	7
Lynchburg Regional Airport (LYH)	1	7	3	6
Newport News/Williamsburg Int'l Airport (PHF)	6	1	5	4
Range Regional Airport (HIB)	5	5	6	2
St. Cloud Regional Airport (STC)	4	3	2	3
	1 = High Score; 7 = Low Score			

Source Data: Woods & Poole Economics, Inc., 2019

Study Airport and Peer Group Comparison – Key Demand, Key Supply, and Key Market Output and Connectivity Indicators

After the peer airports and the study airport were compared by demographic and economic indicators, they were then measured by key performance indicators related to air service.

Key Demand Performance Indicators

Key Demand Performance Indicators are important criteria for airlines and are associated with passenger demand at a particular airport and the profitability of its routes.

- *Average O&D Passenger Traffic per Outbound Seat:* This is the total number of O&D trips (arrivals and departures) divided by the number of outbound seats available. While the number of passenger enplanements is an important metric for airports, airlines look at the number of O&D passengers as a measure of local demand. Unlike enplaned/deplaned passenger counts, which include both local and connecting traffic, O&D figures are based on passenger itineraries which list true origins and destinations, whether the passenger flies nonstop or connects to complete the journey.
- *Average O&D Passenger Revenue per Aircraft Departure:* This indicator measures the revenue associated with an aircraft departure. It is calculated by multiplying the number of O&D passengers with the average one-way fare in each respective city-pair (origin and destination city).

Key Supply Performance Indicators

Key Supply Performance Indicators are associated with airline management of passenger seat capacity at a particular airport and the market's response in turn.

- *Average Number of Outbound Seats per Aircraft Departure:* Increases in the number of outbound seats typically indicate a trend toward the use of larger aircraft in a market.
- *Average Passenger Load Factor:* Load factor, defined by the FAA as the percentage of available seats that are filled with passengers, is a measure of passenger utilization. It is an important data point for airlines when deciding whether to increase the size of aircraft, add new service, or even reduce service.

Key Market Output and Connectivity Indicators

Key Market Output and Connectivity indicators relate to the passengers associated with the airport's market utilizing the local airport.

- *Average O&D Passenger Traffic per Capita*: Also known as "propensity to fly," Average O&D Passenger Traffic per Capita is the average number of trips taken by those who live in the airport's immediate market or metropolitan area (O&D passenger traffic divided by the population within the market). Airlines often use this metric to determine the level of future demand for travel. Propensity to fly can also inform decision-makers about what kind of service to pursue, or what other hubs in the system might better satisfy the local market's demand for different destinations.
- *Total Market Connectivity*: Total Market Connectivity describes an airport's connectivity (number of flights) to other larger airports in the system. It is often the critical variable in explaining a passenger's decision to use the local airport versus selecting an alternative airport. Connectivity for nonhub airports is particularly important since access to larger airports can provide passengers with a variety of destination choices.

Middle Georgia Regional Airport's Ranking by Key Performance Indicators

After analyzing each indicator separately, the Middle Georgia Regional Airport's standing as compared to the six peer airports is summarized in **Table 3-42**. Rankings range from first (1) to seventh (7), with seven being the lowest ranking score.

Table 3-42: Middle Georgia Regional Airport's Ranking by Key Performance Indicators

	Performance Metric	2014	2019
Key Demand	Average Origin & Destination Passenger Traffic per Outbound Seat	7	7
	Average Origin & Destination Passenger Revenue per Aircraft Departure	7	7
Key Supply	Average Number of Outbound Seats per Aircraft Departure	7	7
	Average Passenger Load Factor	7	6
Key Market	Average Origin & Destination Traffic per Capita/Propensity to Fly	7	7
	Total Market Connectivity/Airport Connectivity Quality Index (ACQI)	7	7
	Aggregate Rank	**7**	**6.8**

Source: Delta Airport Consultants, Inc., Analysis.

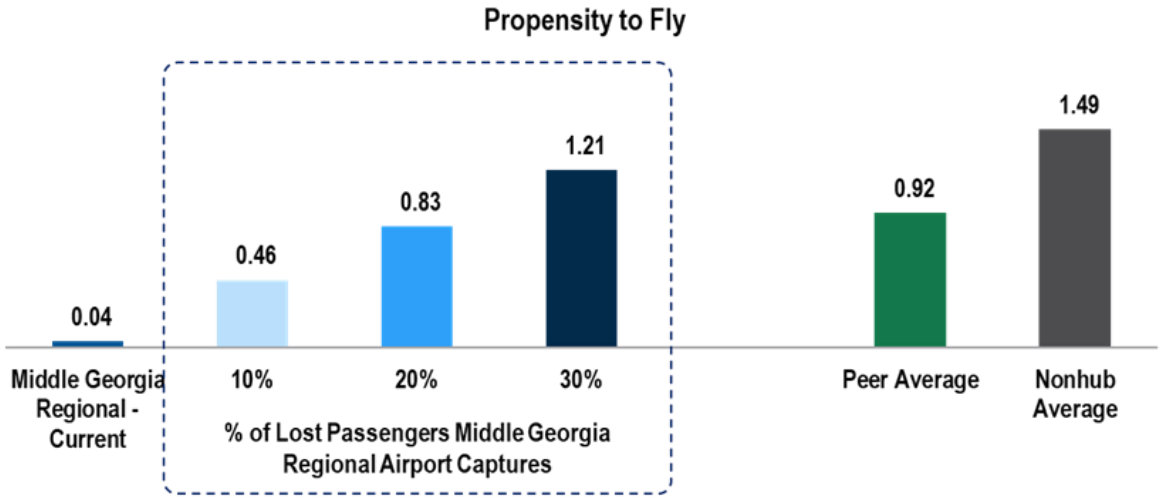
Among the seven airports, the Middle Georgia Regional Airport's average ranking is 6.8, which is a slight improvement over its 2014 ranking. The improvement in load factor particularly reflects that the Middle Georgia Regional Airport market will use air service if the service is to the right destination. A service that provides true connectivity would improve each of the Middle Georgia Regional Airport's respective metrics.

3.8.3 Sensitivity Analysis – Middle Georgia Regional Airport

Figure 3-38 depicts the outcome of a sensitivity analysis that considers both the benchmarking results, as well as findings from the Middle Georgia Regional Airport Market Potential Report. The Market Potential Report determined the study airport is capturing approximately 1.1 percent of the potential O&D passenger demand within its catchment area, while the annual demand is 873,775 passenger trips.

The sensitivity analysis considers a market's propensity to fly and presents several possible scenarios in which the airport might capture a percentage of its current passenger leakage through improved service. As shown, Middle Georgia Regional Airport would need to capture 30 percent of its lost passenger traffic to surpass the average of its peer airports.

Figure 3-38: Middle Georgia Regional Airport – Sensitivity Analysis



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airline schedule data; Woods & Poole Economics, Inc., 2019.

3.8.4 Summary of Market Potential and Benchmarking Findings for Middle Georgia Regional Airport

Middle Georgia Regional Airport's biggest challenges are its lack of service options (both in terms of the number of carriers that provide service and in its number of daily departures) and its proximity to Hartsfield-Jackson Atlanta International Airport. Despite the airport's proximity to Atlanta, there has been positive momentum in the usage of the airport's Baltimore service since its inception in 2017. To build on that momentum, Middle Georgia Regional Airport must continue to work with Contour Airlines to find ways to promote its existing service.

Middle Georgia Regional Airport management reports that since Contour Airlines initiated service in 2017, they have maintained a reliability factor in the 90th percentile. For many nonhub markets, service reliability is a major factor causing passengers to utilize an alternative airport. With limited daily departures such as Middle Georgia Regional Airport has, a displaced passenger is not easily re-accommodated. If air service is not dependable, particularly for a business traveler, that passenger will seek an airport with multiple services in the event of a flight cancellation. The Middle Georgia Regional Airport management should continue to work with Contour Airlines to find ways to ensure the reliability of the existing service.

In January 2020 prior to the COVID-19 impact, Middle Georgia Regional Airport management launched a successful social media and online marketing campaign to increase load factors during the slower travel season. Macon leaders should continue using marketing efforts such as this one to educate the community on the value of flying local. Additionally, it should heavily promote the cost competitive flight options to Baltimore that Contour Airlines offers. Existing service should be marketed to highlight its ability to provide travelers with access to the greater Washington, D.C. area. It may also be beneficial to expand marketing campaigns beyond the airport's immediate catchment area. There may be passengers in neighboring markets who would find the affordable service at the study airport an attractive alternative to reach the Baltimore/Greater Washington area.

Proximity of Middle Georgia Regional Airport to Hartsfield-Jackson Atlanta International Airport makes it difficult to attract service from one of the three network carriers (American Airlines, Delta Air Lines, and United Airlines). However, the market has the economic and demographic attributes to support more robust service. Interstate access from the Middle Georgia Regional Airport market to Atlanta is excellent, and travelers can avoid significant levels of urban traffic because Macon and Hartsfield-Jackson Atlanta Airport are situated to the south of Atlanta. Carriers considering Middle Georgia Regional Airport need to market route(s) in demand, and they need to match or improve on fare levels offered at Atlanta.

Finally, as marketing efforts mature and the industry recovers from the impacts of COVID-19, it may be beneficial to work with Contour Airlines again to explore options for a Florida-bound service, even if less than daily, or seasonal flights to other markets in high demand for passengers in the Middle Georgia Regional Airport catchment area. As previously shown, both Orlando and Fort Lauderdale are top destinations for travelers in the airport's 60-mile and 30-mile catchment areas.

3.9 Athens-Ben Epps Airport

The Athens-Ben Epps Airport is a county-owned airport situated in the northeastern portion of the state, four miles east of Athens, in Clarke County, Georgia. As stated previously, the study airport had limited commercial air service subsidized through USDOT's Essential Air Service (EAS) program in the past.

A brief recent history of Athens' air service and air service efforts follows:

- Georgia Skies was awarded the EAS contract in June 2008 and operated twice-daily service to Atlanta until the summer of 2012 (Cessna 208 Caravan, 9-seat aircraft).
- Seaport Airlines was awarded the EAS contract and provided twice-daily service to Nashville, 2012-2014 (Cessna 208 Caravan, 9-seat aircraft).

- The Athens-Ben Epps Airport became ineligible in 2014 for EAS when its average passenger level declined below the EAS-required level of at least 10 passengers per service day. Consequently, its service to Nashville, Tennessee by SeaPort Airlines ceased.[37]
- After the loss of EAS, the Athens-Ben Epps Airport completed a series of large capital improvement projects. Enhancements included the construction of a new terminal building completed in 2017 and an extension of its main runway completed in 2016.[38]
- On February 24, 2020, USDOT issued a Small Community Air Service Development Program (SCASDP) grant in the amount of $750,000 to the Athens-Ben Epps Airport. The grant will augment local funding raised by community leaders to focus on attracting new service to Charlotte Douglas International Airport from the Athens-Ben Epps Airport. The service would be provided by American Airlines. The SCASDP grant will be used for a revenue guarantee and marketing.[39]

It is important to note that some of the data for the Athens-Ben Epps Airport included in this report may be limited because the study airport has had no scheduled airline service since 2014. As a result, data in some cases may be insufficient to draw adequate comparison and should be interpreted with caution.

3.9.1 Market Potential Analysis – Athens-Ben Epps Airport

For this analysis, the primary catchment area is composed of zip codes falling within an approximate 60-mile radius of, or roughly a 60-minute drive from, the study airport. The primary catchment area for Athens-Ben Epps Airport (**Figure 3-39**) has considerable overlap with the Hartsfield-Jackson Atlanta International Airport catchment area and encompasses a population of over 1,622,000.[40] Several communities within the Athens-Ben Epps Airport catchment area are suburbs located east and northeast of Atlanta.

Airlines consider the number of O&D passengers as a measurement of local demand. O&D passenger traffic is different from the number of passenger enplanements, which is an important metric for airports. Enplaned passenger counts include both local and connecting traffic, as applicable for an airport. O&D passenger counts, however, are based on the true origin and destination of enplaned and deplaned passengers, whether they fly nonstop or connect to complete a journey.

In the 12-month period ending March 2019 (YE 1Q19), there were 5,453,509 O&D passengers (enplaned and deplaned) within the Athens-Ben Epps Airport catchment area who purchased airline tickets, and of those passengers, 2.5 percent originated from the city of the Athens, Georgia.[41]

[37] Jacqueline GaNun, "Athens airport receives $750,000 federal grant to recruit commercial airline," The Red & Black, posted February 25, 2020, https://www.redandblack.com/athensnews/athens-airport-receives-federal-grant-to-recruit-commercial-airline/article_0c9a9f8e-578d-11ea-9aff-87f3434aa94b.html.

[38] Roscoe Odom, "Dreaming of departures: Athens-Ben Epps Airport hopes to land airline to restore commercial passenger air service," The Red & Black, https://www.redandblack.com/athensnews/dreaming-of-departures-athens-ben-epps-airport-hopes-to-land/article_07667520-8556-11e8-9bcb-dfc9f6c00fba.html.

[39] United States Department of Transportation Office of the Secretary, *Small Community Air Service Development Program: Order Awarding Grants* (Docket DOT-OST-2019-0071/Order 2020-2-13), Department of Transportation, Served February 24, 2020, https://www.transportation.gov/sites/dot.gov/files/2020-02/FY2018%20SCASDP%20Selection%20Order%202020-2-13.pdf.

[40] 2010 Census, United States Census Bureau. Data has been adjusted using population growth rates from Woods & Poole Economics, Inc.

[41] Airline Data, Inc., Airport Catchment Analytics database.

Figure 3-39: Athens-Ben Epps Airport Catchment Area

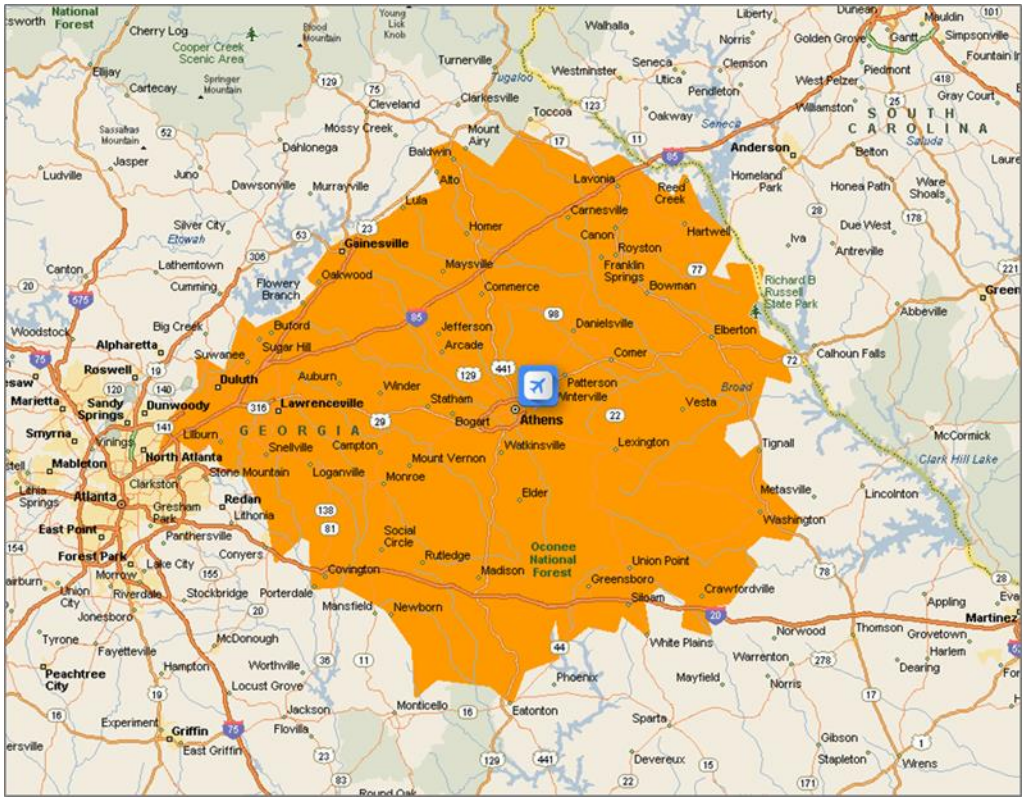
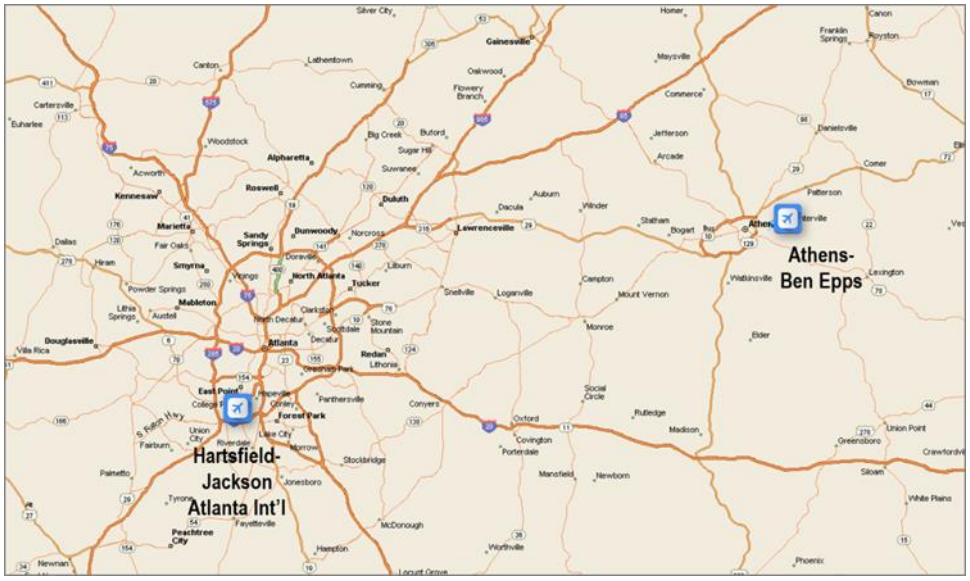

Athens
Gainesville
Anderson
Atlanta
Alpharetta
Roswell
Duluth
Lawrenceville
Marietta
Dunwoody
Sandy Springs
Smyrna
Mableton
North Atlanta
East Point
Forest Park
Peachtree City
Griffin
Jonesboro
Conyers
Covington
Madison
Oconee National Forest
Greensboro
Union Point
Crawfordville
Washington
Lexington
Watkinsville
Bogart
Winder
Auburn
Buford
Jefferson
Commerce
Maysville
Oakwood
Flowery Branch
Cumming
Lavonia
Carnesville
Hartwell
Royston
Franklin Springs
Bowman
Elberton
Danielsville
Comer
Calhoun Falls
Abbeville
Clark Hill Lake
Lincolnton
Metasville
Tignall
Vesta
Patterson
Winterville
Elder
Social Circle
Rutledge
Monroe
Loganville
Mount Vernon
Snellville
Stone Mountain
Clarkston
Redan
Lithonia
Panthersville
Stockbridge
Porterdale
Mansfield
Newborn
Monticello
Eatonton
Sparta
Devereux
Gibson
Stapleton
Wrens
Thomson
Norwood
White Plains
Warrenton
Mayfield
Phoenix
Norris
Dearing
Harlem
Grovetown
Appling
Martinez
Tyrone
Fayetteville
McDonough
Hampton
Locust Grove
Jackson
Flovilla
East Griffin
Experiment
Riverdale
Union City
Morrow
Lake City
Hapeville
Gresham Park
Lula
Alto
Baldwin
Mount Airy
Toccoa
Clarkesville
Cleveland
Mossy Creek
Dahlonega
Murrayville
Dawsonville
Juno
Jasper
Ludville
Cartecay
Ellijay
Cherry Log
Cooper Creek Scenic Area
Blue Ridge
Turnerville
Tugaloo
Westminster
Seneca
Utica
Pendleton
Clemson
Oakway
Williamston
Piedmont
West Pelzer
Gray Court
Honea Path
Belton
Homeland Park
Iva
Antreville
Due West
Ware Shoals
Richard B Russell State Park
Liberty
Norris
Golden Grove
Gantt
Simpsonville
Mauldin
Woodstock
Canton
Lathemtown
Silver City
Etowah
Big Creek
Suwanee
Sugar Hill
Auburn
Statham
Arcade
Carnesville
Reed Creek
Canon
Homer

Figure 3-40: Athens-Ben Epps Airport Proximity to Hartsfield-Jackson Atlanta International Airport



Source: Microsoft MapPoint.

Table 3-43: Passenger Traffic to Alternative Airport, YE 1Q19

Nearby Airport	Miles Away	Drive Time	% of Total Catchment Area Traffic	Avg. Daily Domestic Departures	Avg. Daily Domestic Outbound Seats
Hartsfield-Jackson Atlanta International (ATL)	84	1:58	96.7%	1,090	153,309

Sources: Airport Data, Inc., Airport Catchment Analytics database; Bing Maps (mileage and drive time).

60-Mile Catchment Area: Passenger Destinations

When considering demand levels within the Athens-Ben Epps Airport's market, it is also important to understand the ultimate destination of the airport's passengers. This type of data is particularly important for an airport to be able to quantify for airline route planners. The top five largest markets for travelers associated with the Athens-Ben Epps Airport's catchment area that now are using Hartsfield-Jackson Atlanta International Airport are New York, Orlando, Boston, Fort Lauderdale, and Chicago (**Table 3-44**).

Table 3-44: Top Five Markets in Athens-Ben Epps Airport Catchment Area **Using Alternative Airports, YE 1Q19**

Rank	Airport	Catchment Area O&D Passengers
1	New York LaGuardia (LGA)	262,755
2	Orlando (MCO)	207,292
3	Boston (BOS)	177,568
4	Fort Lauderdale (FLL)	174,742
5	Chicago O'Hare (ORD)	169,156

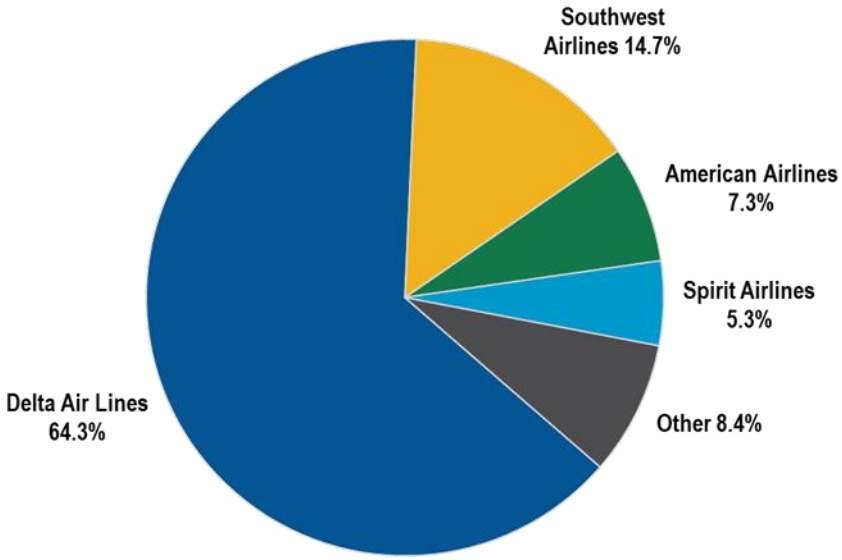
Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

60-Mile Catchment Area: Air Carrier Competition

Analyzing airline usage provides insight into which carriers are competing for passengers within the Athens-Ben Epps Airport's 60-mile catchment area. Delta Air Lines captures over 64 percent of the study airport's

market. Southwest Airlines captures the next largest percent, almost 15 percent. The next two largest carriers are American Airlines and Spirit Airlines, who capture 7.3 percent and 5.3 percent of the catchment area passengers, respectively (**Figure 3-41**).

Figure 3-41: Athens-Ben Epps Airport Catchment Area – Capture by Air Carrier



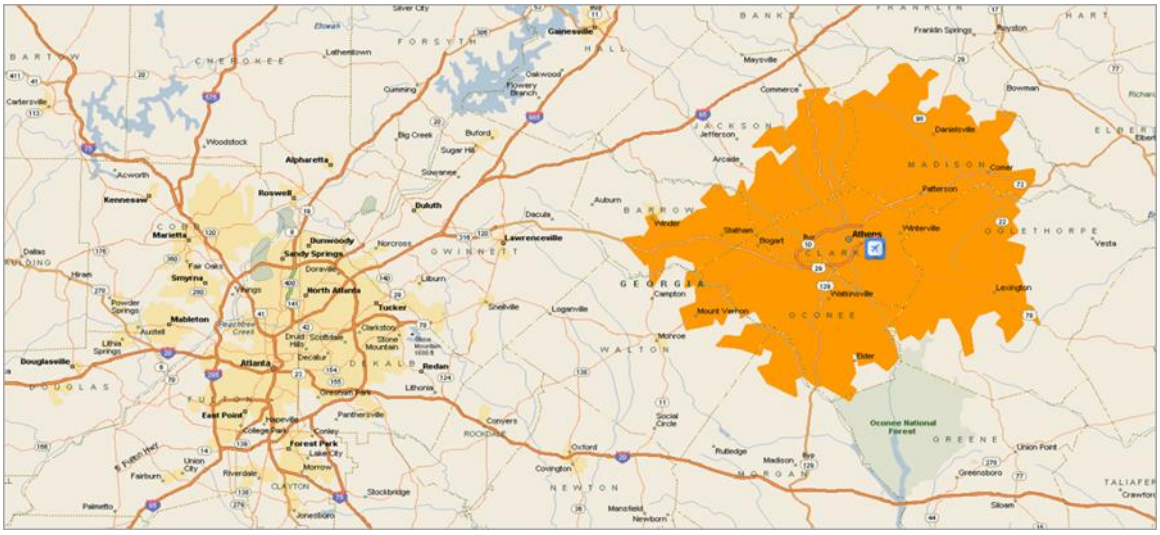
Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

30-Mile Catchment Area: Passenger Analysis

Because of Athens-Ben Epps Airport's proximity to Hartsfield-Jackson Atlanta International Airport, this study also provides an additional analysis using a 30-mile catchment area (**Figure 3-42**). A 30-mile catchment area for the Athens-Ben Epps Airport encompasses a population of over 196,000.[42]

[42] 2010 Census, United States Census Bureau. Data has been adjusted using population growth rates from Woods & Poole Economics, Inc.

Figure 3-42: Athens-Ben Epps Airport 30-Mile Catchment Area



Source: Microsoft MapPoint.

In the 12-month period ending March 2019 (YE 1Q19), there were 497,682 O&D passengers (enplaned and deplaned) within the Athens-Ben Epps Airport 30-mile catchment area who purchased airline tickets, and of those passengers, 27.36 percent originated from the city of Athens.

Similar to the breakdown of potential passengers within the 60-mile catchment area, 96.7 percent flew out of Hartsfield-Jackson Atlanta International Airport. Greenville-Spartanburg International Airport (1.2 percent), Charlotte Douglas International Airport (0.9 percent), Augusta Regional Airport (0.3 percent), and Asheville Regional Airport (0.2 percent) also served smaller percentages of the potential passengers.

30-Mile Catchment Area: Passenger Destinations

The top five destinations for travelers associated with the Athens-Ben Epps Airport's 30-mile catchment area using Hartsfield-Jackson Atlanta International Airport were identical to the 60-mile catchment area: New York, Orlando, Boston, Fort Lauderdale, and Chicago (**Table 3-45**).

Table 3-45: Top Five Markets in Athens-Ben Epps Airport 30-Mile Catchment Area Using Alternative Airports, YE 1Q19

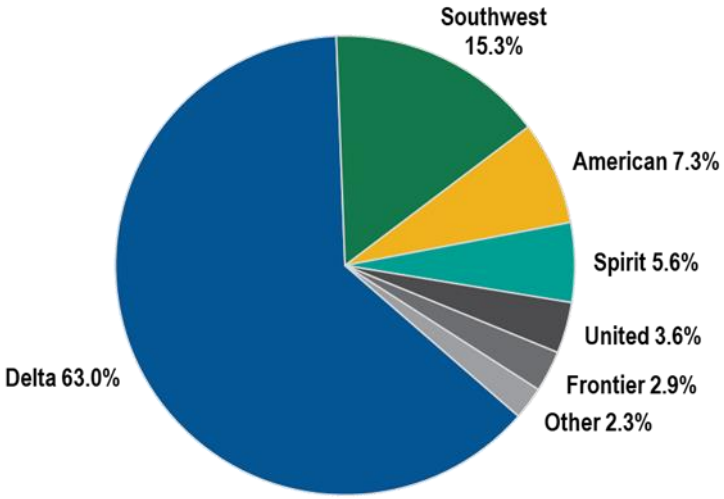
Rank	Airport	Catchment Area O&D Passengers
1	New York LaGuardia (LGA)	25,130
2	Orlando (MCO)	19,711
3	Boston (BOS)	17,040
4	Fort Lauderdale (FLL)	16,662
5	Chicago O'Hare (ORD)	16,246

Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

30-Mile Catchment Area: Air Carrier Competition

Delta Air Lines captured 63 percent of the study airport's potential passengers within the 30-mile catchment area. Southwest Airlines captures a little more than 15 percent (**Figure 3-43**).

Figure 3-43: Athens-Ben Epps Airport 30-Mile Catchment Area – Capture by Air Carrier



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

3.9.2 Benchmarking Analysis – Athens-Ben Epps Airport

As another element of the Statewide Air Service Study, a benchmarking study was prepared for select commercial service airports in Georgia. The purpose of a benchmarking study is to compare the performance of one airport to another similarly situated airport. For the purposes of this analysis, "similarly situated" refers to the proximity of the study airports to a large hub airport, which is a larger airport that typically offers significantly more variation of service and frequency of departures than smaller airports can offer.

Six airports were selected for comparison as peer airports for the Athens-Ben Epps Airport following the process described above. These peer airports include:

- Chippewa Valley Regional Airport (EAU), Eau Claire, WI
- Concord-Padgett Regional Airport (USA), Concord, NC
- Florence Regional Airport (FLO), Florence, SC
- Merced Regional Airport (MCE), Merced, CA
- Newport News/Williamsburg International Airport (PHF), Newport News, VA
- University Park Airport (SCE), State College, PA

Study Airport and Peer Group Comparison – Economic and Demographic Indicators

The Athens-Ben Epps Airport was compared to the six peer airports using four economic and demographic indicators: population, employment, gross regional product (GRP), and income per capita. These indicators create a collective story about the study airport's market and can be used to highlight its strengths as well as to identify potential weaknesses that may need further explanation to airlines considering new service.

Demographic and economic data was sourced from the 2010 U.S. Census and then extrapolated using forecast rates generated by Woods and Poole Economics, Inc. Data used in the analysis was for the city or county where the airport is located.

The seven airports were ranked in order from one (high score) to seven (low score) based on the economic and demographic indicators. For the purposes of the ranking exercise, each of the metrics was weighted equally (meaning, each was considered as important as another). As **Table 3-46** indicates, the Athens-Ben Epps Airport's market compares favorably (three or better) to its peers for all but one category.

Table 3-46: Study Airport Versus Peer Group – Ranking by Economic and Demographic Indicators

Base Airport	2019 Population	2019 Gross Regional Product	2019 Employment	2019 Income per Capita
Athens-Ben Epps Airport (AHN)	**3**	**2**	**1**	**7**
Chippewa Valley Regional Airport (EAU)	6	6	5	1
Concord-Padgett Regional Airport (USA)	2	5	6	3
Florence Regional Airport (FLO)	4	7	4	5
Merced Regional Airport (MCE)	1	4	7	6
Newport News/Williamsburg Int'l Airport (PHF)	5	1	2	4
University Park Airport (SCE)	7	3	3	2
	1 = High Score; 7 = Low Score			

Source Data: Woods & Poole Economics, Inc., 2019.

Study Airport and Peer Group Comparison – Key Demand, Key Supply, and Key Market Output and Connectivity Indicators

After the peer airports and the study airport were compared by demographic and economic indicators, they were then measured by key performance indicators related to air service. Since the airport currently has no scheduled airline service, the airport scored a seven, the lowest possible ranking for each of the factors.

Key Demand Performance Indicators

Key Demand Performance Indicators are important criteria for airlines and are associated with passenger demand at a particular airport and the profitability of its routes.

- *Average O&D Passenger Traffic per Outbound Seat:* This is the total number of O&D trips (arrivals and departures) divided by the number of outbound seats available. While the number of passenger enplanements is an important metric for airports, airlines look at the number of O&D passengers as a measure of local demand. Unlike enplaned/deplaned passenger counts, which include both local and connecting traffic, O&D figures are based on passenger itineraries which list true origins and destinations, whether the passenger flies nonstop or connects to complete the journey.
- *Average O&D Passenger Revenue per Aircraft Departure:* This indicator measures the revenue associated with an aircraft departure. It is calculated by multiplying the number of O&D passengers with the average one-way fare in each respective city-pair (origin, and destination city).

Key Supply Performance Indicators

Key Supply Performance Indicators are associated with airline management of passenger seat capacity at a particular airport and the market's response in turn.

- *Average Number of Outbound Seats per Aircraft Departure:* Increases in the number of outbound seats typically indicate a trend toward the use of larger aircraft in a market.
- *Average Passenger Load Factor:* Load factor, defined by the FAA as the percentage of available seats that are filled with passengers, is a measure of passenger utilization. It is an important data

point for airlines when deciding whether to increase the size of aircraft, add new service, or even reduce service.

Key Market Output and Connectivity Indicators

Key Market Output and Connectivity indicators relate to the passengers associated with the airport's market utilizing the local airport.

- *Average O&D Passenger Traffic per Capita*: Also known as "propensity to fly," Average O&D Passenger Traffic per Capita is the average number of trips taken by those who live in the airport's immediate market or metropolitan area (O&D passenger traffic divided by the population within the market). Airlines often use this metric to determine the level of future demand for travel. Propensity to fly can also inform decision-makers about what kind of service to pursue, or what other hubs in the system might better satisfy the local market's demand for different destinations.
- *Total Market Connectivity*: Total Market Connectivity describes an airport's connectivity (number of flights) to other larger airports in the system. It is often the critical variable in explaining a passenger's decision to use the local airport versus selecting an alternative airport. Connectivity for nonhub airports is particularly important since access to larger airports can provide passengers with a variety of destination choices.

After analyzing each indicator separately, the Athens-Ben Epps Airport's standing as compared to the six peer airports is summarized in **Table 3-47**. Rankings range from first (1) to seventh (7), with seven being the lowest ranking score.

Table 3-47: Athens-Ben Epps Airport's Ranking by Key Performance Indicators

	Performance Metric	2014	2019
Key Demand	Average Origin & Destination Passenger Traffic per Outbound Seat	2	7
	Average Origin & Destination Passenger Revenue per Aircraft Departure	7	7
Key Supply	Average Number of Outbound Seats per Aircraft Departure	7	7
	Average Passenger Load Factor	6	7
Key Market	Average Origin & Destination Traffic per Capita/Propensity to Fly	7	7
	Total Market Connectivity/Airport Connectivity Quality Index (ACQI)	6	7
	Aggregate Rank	**5.8**	**7.0**

Source: Delta Airport Consultants, Inc., Analysis.

Among the airports, the Athens-Ben Epps Airport's average ranking is 7.0. These low rankings are the result of the Athens-Ben Epps Airport having no commercial air service options currently. A service with connectivity such as the type American Airlines may be able to offer via Charlotte Douglas International Airport would significantly improve each of Athens-Ben Epps Airport's respective metrics.

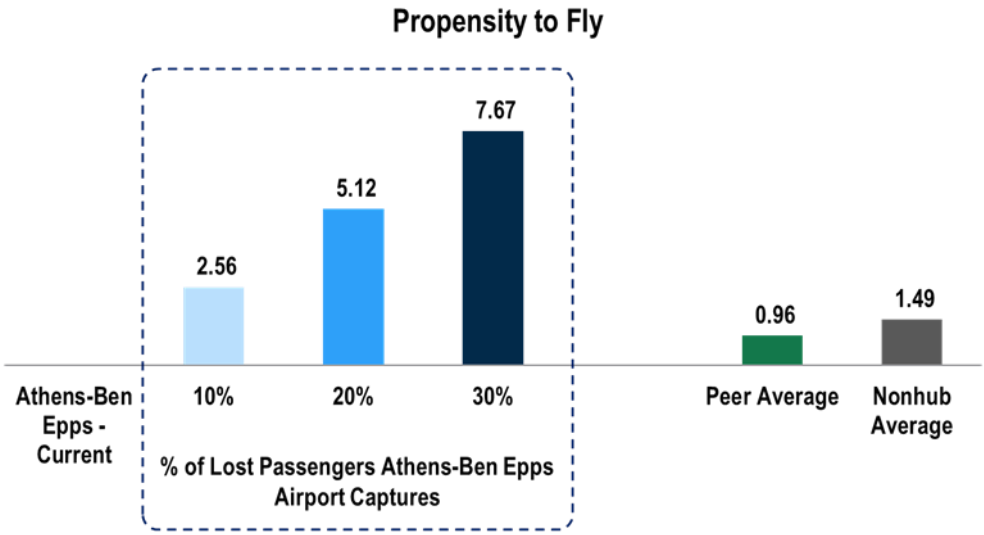
3.9.3 Sensitivity Analysis – Athens-Ben Epps Airport

Figure 3-44 depicts the outcome of a sensitivity analysis that considers both the benchmarking results as well as findings from the Athens-Ben Epps Airport Market Potential Report. It determined there were 5,453,509 O&D passengers (enplaned and deplaned) within the Athens-Ben Epps Airport 60-mile catchment area who purchased airline tickets in the 12-month period ending March 2019 (YE 1Q19).[43] This catchment area includes several of the Atlanta suburbs located just west of Athens.

[43] Airline Data, Inc., Airport Catchment Analytics database.

The sensitivity analysis considers a market's propensity to fly and presents several possible scenarios in which the airport might capture a percentage of its current passenger leakage through improved service. As shown, if the Athens-Ben Epps Airport were to capture ten percent of its lost passengers, its propensity to fly rating would well exceed the peer group average and the U.S. nonhub average.

Figure 3-44: Athens-Ben Epps Airport – Sensitivity Analysis



Sources: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airline Data, Inc., Airline schedule data; Woods & Poole Economics, Inc., 2019.

3.9.4 Summary of Market Potential and Benchmarking Findings for Athens-Ben Epps Airport

Among key economic and demographic Indicators, the Athens-Ben Eps Airport compared favorably to its peers in almost every category when Athens had service in 2014. Its income per capita falls below peer and nonhub averages; yet despite this, the Athens-Ben Epps Airport has all the economic and demographic attributes necessary to support commercial air service from a network carrier (American Airlines, Delta Air Lines, and United Airlines).

Its biggest weakness, however, is its proximity to Hartsfield-Jackson Atlanta International Airport and the amount of catchment area overlap between the two airports. A large portion of the communities within the Athens-Ben Epps Airport catchment area are suburbs located east and northeast of Atlanta.

Any eventual commercial air service at the Athens-Ben Epps Airport will need to be supported heavily by the local community. Fortunately, the capital improvement projects to replace the nearly 70-year-old terminal building and extend the main runway demonstrate a strong commitment by the Athens-Ben Epps Airport to attract new commercial air service. The fact that the Athens-Ben Epps Airport community has raised considerable funding on its own to attract new service – enough to garner additional aid through a recent Small Community Air Service Development Program (SCASDP) grant – is also a testament to the community's dedication to resuming commercial airline service.

In the event the Athens-Ben Epps Airport is able to successfully use the SCASDP grant to help initiate service to Charlotte Douglas International Airport by American Airlines, it will be imperative for the community leadership to launch a robust marketing campaign to educate potential passengers on the value and benefits of choosing to fly local. Using the marketing funding available through the SCASDP grant, consideration could also be given to extending promotion of any new service to the suburbs located on the east and northeast of Atlanta as a

convenient, “low-stress” alternative to Hartsfield-Jackson Atlanta International Airport (ATL). Due to driving proximity to ATL, promotion of a competitive American Airline connection through Charlotte appears feasible.

4. Summary of Benchmarking and Leakage Analysis for Georgia Nonhub Airports

4.1 Georgia’s Nonhub Airports and Passenger Attraction

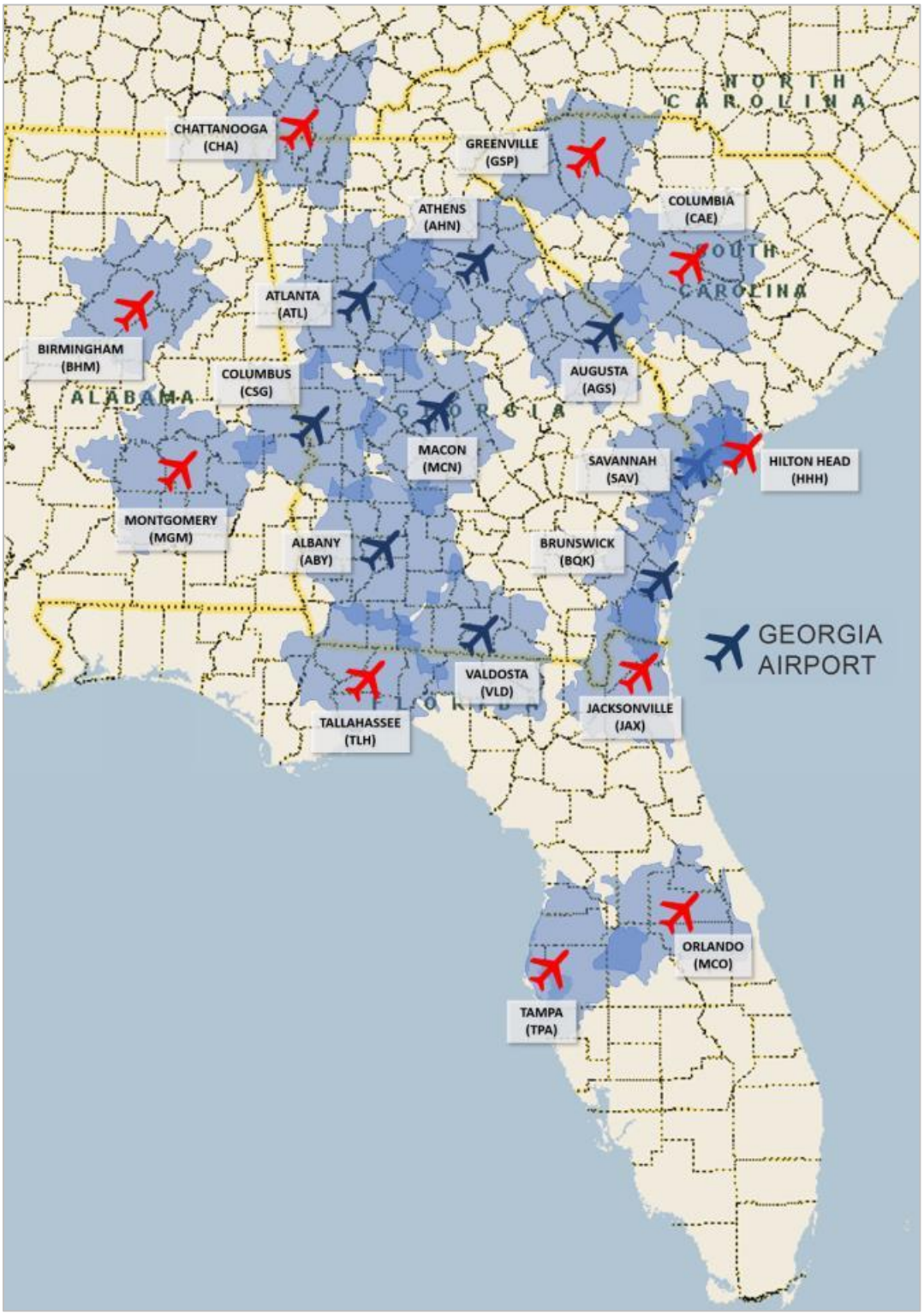
Individual airport catchment areas were presented in **Section 3** of this report. **Figure 4-1** illustrates the catchment areas of the commercial service airports in Georgia, as well as those of select, adjacent commercial service airports.

As discussed in **Section 3**, while travelers are often willing to drive longer distances to an airport that offers more service, lower fares, and a higher number of departures, an airport’s catchment area was defined as being within a 60-mile radius of, or roughly a 60-minute drive from, the study airport for the purposes of this Statewide Air Service Study.

In markets where multiple airports are situated close to one another, individual catchment areas may overlap. Overlaps exist today across Georgia’s system of commercial air service airports, and across the catchment areas of airports in adjacent states (**Figure 4-1**). When this occurs, common areas are sometimes referred to as “battlegrounds,” where nonhub airports may feel the competition the most. In many instances, larger airports may win the contested passengers thanks to their multiple service offerings to various destinations, often at more competitive fares.

As shown in **Figure 4-1**, three of Georgia’s nonhub airports are less than 100 miles from Hartsfield-Jackson Atlanta International Airport (ATL). The Middle Georgia Regional Airport (MCN) in Macon is no longer served by Delta Air Lines. Therefore, customers in this catchment area are very likely to drive to Hartsfield-Jackson Atlanta International Airport, where they can find nonstop flights and where fares are generally lower due to the degree of competition at this large hub airport. Due in part to its proximity to Atlanta and to the higher number of flight options this large hub offers, the Columbus Airport (CSG) is currently losing 90.4 percent of the passengers within its catchment area to Hartsfield-Jackson Atlanta International Airport (**Table 3-20**). The Athens-Ben Epps Airport (AHN) does not currently offer commercial air service. As noted in **Section 3**, of the potential passengers within that airport’s catchment area, 96.7 percent flew out of Hartsfield-Jackson Atlanta International Airport (**Table 3-43**).

Figure 4-1: Catchment Areas of Georgia's Commercial Service and Surrounding Airports



Source: Delta Airport Consultants, Inc., Microsoft MapPoint.

In some cases, passengers are willing to drive 200 miles or more to access an alternative airport which offers more airline selections, more frequent departures, and lower fares. For example, the Southwest Georgia Regional Airport (ABY) in Albany loses passenger traffic to Jacksonville International Airport (JAX), Orlando International Airport (MCO), Tampa International Airport (TPA), and Tallahassee International Airport (TLH); three of these Florida airports are over 200 miles from the Southwest Georgia Regional Airport (**Figure 4-1**). As mentioned in **Section 3.7**, the Valdosta Regional Airport (VLD) also loses significant levels of passenger traffic to Florida airports.

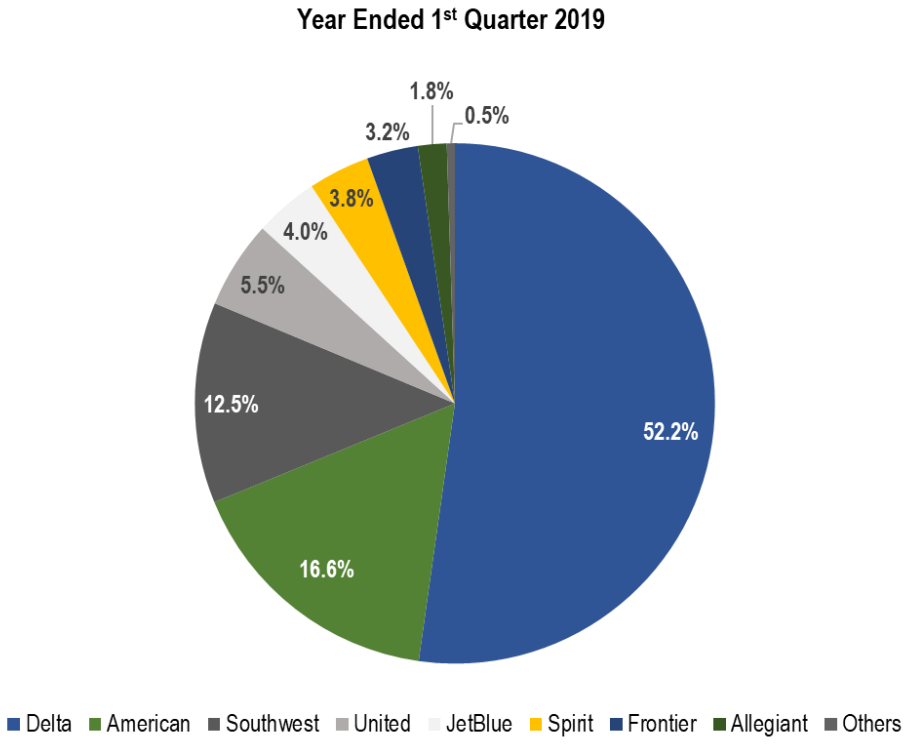
The Brunswick Golden Isles Airport (BQK) is less than 75 miles from both Jacksonville International Airport and Savannah/Hilton Head International Airport (SAV). Passengers within the Brunswick Golden Isles Airport catchment area who desire the higher level of service and lower fares that larger airports can offer often choose to leave the local market area.

Delta Air Lines and American Airlines capture the majority of passenger traffic associated with Georgia's nonhub airports in two ways: when the passenger's local airport offers nonstop service to Hartsfield-Jackson Atlanta International Airport or when the passenger chooses to use an alternative airport which is served by these two airlines. For example, Delta Air Lines captures all of the passenger traffic flying from one of the four nonhub airports that it serves exclusively when those passengers within the catchment areas use their local airport (Southwest Georgia Regional Airport, Brunswick Golden Isles Airport, Columbus Airport, and Valdosta Regional Airport). Delta also captures some share of those catchment area passengers who choose to drive to Hartsfield-Jackson Atlanta International Airport, versus flying out of their local nonhub airport.

Of all passenger traffic originating within the catchment areas of the five nonhub airports included in this analysis, Delta Air Lines captures over 52 percent (**Figure 4-2**). This share has remained relatively constant since 2016. American Airlines, the other carrier offering nonstop service from one of the nonhub airports, Augusta Regional Airport, has over 16 percent of the market. Note that American Airlines' additional service from Augusta Regional Airport was not added until early 2020 and is therefore not reflected in the data presented in **Figure 4-2**.

Of note is the seven percent combined market share of two ULCCs, Spirit Airlines and Frontier Airlines, which have offered service in Georgia since 2014. Another notable item is the total market share captured by United Airlines and Spirit Airlines (5.5 percent and 3.8 percent, respectively). Since these four carriers do not serve any of Georgia's nonhub airports, this means they are capturing passengers that have leaked (are driving) from the nonhub airports' catchment area to alternative airports, often airports in Florida.

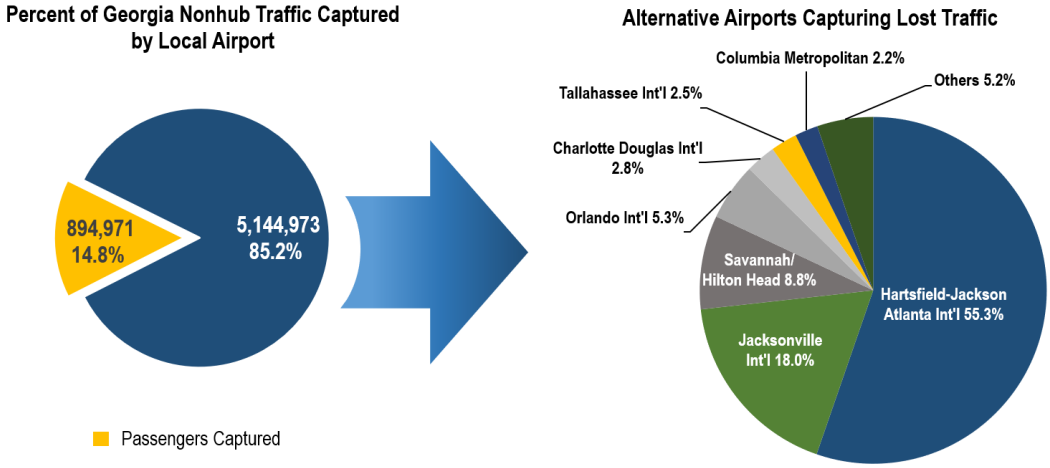
Figure 4-2: Capture of Georgia Nonhub Airport Traffic by Airline, 2019



Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics Database

The combined average passenger traffic retention rate for the five Georgia nonhub airports on a network carrier is almost 15 percent (**Figure 4-3**). This means that 85.2 percent of passengers within the catchment areas of the five nonhub airports are choosing alternative airports.

Figure 4-3: Passenger Traffic Within Georgia's Nonhub Airport Catchment Areas Which Uses an Alternative Airport

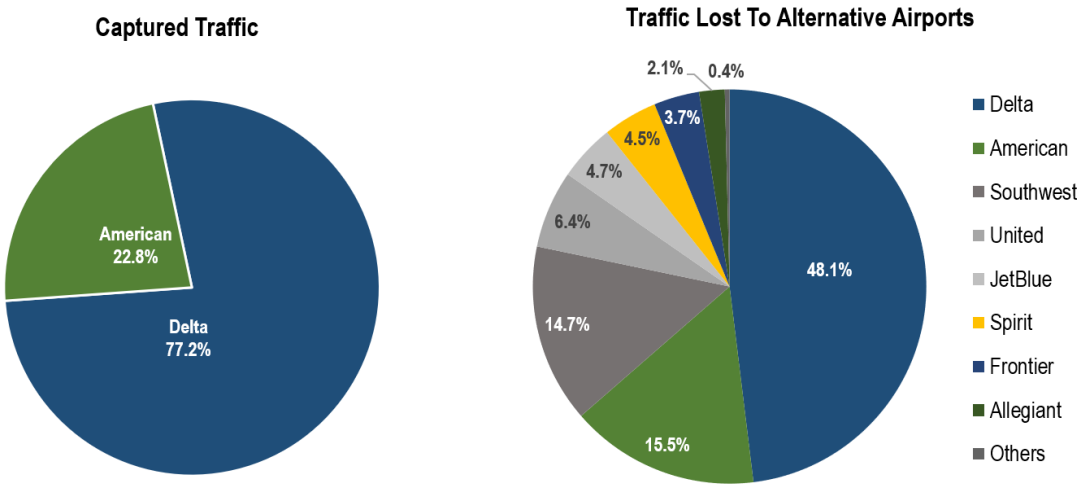


Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

Of the approximately 15 percent of estimated total passenger traffic departing from one of the five Georgia nonhub airports with network carrier service, Delta Air Lines captures nearly 77 percent of the passenger traffic, and American Airlines captures the remaining, almost 23 percent (**Figure 4-4**). This is understandable, given the fact that Delta Air Lines serves four of these airports exclusively, with Augusta Regional Airport also being served by American Airlines.

However, of the *potential* passenger traffic within the catchment areas for the five nonhub airports (of the 85.2 percent of passengers who have been lost to other airports), Delta Air Lines and American Airlines capture 48.1 percent and 15.5 percent, respectively. The remaining 36.4 percent of passenger traffic within Georgia's nonhub airports' catchment areas that is being lost to alternative airports, selects a carrier other than Delta Air Lines or American Airlines.

Figure 4-4: Percent of Georgia Nonhub Traffic Captured and Lost by Delta Air Lines and American Airlines



Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B), Analysis of ACA Data.

As illustrated in **Figure 4-3**, Hartsfield-Jackson Atlanta International Airport captures over 55 percent of the passengers from a nonhub airport catchment areas choosing an alternative airport, and Savannah/Hilton Head International Airport captures nearly 9 percent. Of note in the remaining 66 percent is the number of passengers within Georgia's nonhub airport catchment areas that are being lost to Florida airports. As **Figure 4-3** illustrates, over 25 percent choose a Florida airport for their departures.

One of the purposes of analyzing airport leakage is to identify the *potential* number of passengers within a specific catchment area. This potential represents the number of unconstrained passengers within each airport catchment area. The passenger number reported by each airport to the United States Department of Transportation (USDOT) is the number of passengers actually using the local airport to travel to their destination. Nonhub airports, with limited air service, typically do not attract a high percentage of the potential passengers in their respective catchment areas. This finding is supported by the leakage discussions for Georgia's nonhub airports presented in **Section 3**. By focusing on the number of potential passengers within a specific catchment area, airports can market themselves to airlines by demonstrating the upside of possible demand associated with each of their respective markets.

As **Table 4-1** indicates, over 25,000 passengers flying from the five Georgia nonhub airports use the local airport to reach New York's LaGuardia Airport. However, there are over 247,000 potential passengers within the five airport catchment areas with this intended destination. Therefore, while only 10.23 percent of the passengers within the Georgia nonhub airport catchment areas who are bound for New York's LaGuardia Airport (LGA) fly

out of their local airport, the state (or individual airports) can point out the "potential" for travel to that specific New York airport, based on the number of potential travelers within the collective (or individual) airport catchment areas.

Notably, three of the top 10 airports in **Table 4-1** are New York airports, demonstrating that New York is a desired destination by those travelers within Georgia's nonhub airport catchment areas. **Table 4-1** shows potential travel demand by location when all "leaked" passengers from all catchment areas for Georgia's nonhub airports are summed. This table also shows, collectively, current demand by destination for passengers being served by the local airports.

Table 4-1: Adjusted Total Passenger Traffic from Georgia's Combined – Nonhub Airport Catchment Areas

Rank	Airport	Reported O&D Passengers	Capture Rate	Estimated True Market Demand	Rank	Airport	Reported O&D Passengers	Capture Rate	Estimated True Market Demand
1	New York LaGuardia (LGA)	25,296	10.23%	247,170	**16**	Orlando (MCO)	11,130	10.10%	110,220
2	Boston (BOS)	17,090	8.21%	208,098	**17**	Minneapolis/St. Paul (MSP)	14,103	13.60%	103,698
3	Chicago O'Hare (ORD)	19,454	9.80%	198,609	**18**	Houston Bush (IAH)	12,580	13.31%	94,493
4	New York Newark (EWR)	14,941	7.96%	187,718	**19**	Chicago Midway (MDW)	5,857	6.71%	87,341
5	Los Angeles (LAX)	17,836	10.21%	174,761	**20**	San Francisco (SFO)	11,055	12.67%	87,232
6	Washington National (DCA)	30,908	17.17%	179,992	**21**	Phoenix (PHX)	14,010	16.15%	86,728
7	Philadelphia (PHL)	18,663	11.16%	167,267	**22**	Seattle (SEA)	14,368	16.83%	85,346
8	New York Kennedy (JFK)	8,313	5.32%	156,161	**23**	San Juan, PR (SJU)	2,407	3.74%	64,371
9	Dallas/Fort Worth (DFW)	22,287	13.21%	168,677	**24**	Austin (AUS)	11,799	16.00%	73,747
10	Denver (DEN)	17,834	10.89%	163,734	**25**	Cleveland (CLE)	9,090	12.90%	70,443
11	Fort Lauderdale (FLL)	12,192	8.32%	146,566	**26**	Pittsburgh (PIT)	12,879	17.83%	72,236
12	Baltimore (BWI)	37,274	22.28%	167,275	**27**	St. Louis (STL)	12,767	17.79%	71,756
13	Las Vegas (LAS)	19,125	13.48%	141,892	**28**	Tampa (TPA)	11,906	16.82%	70,785
14	Detroit (DTW)	18,962	13.83%	137,069	**29**	Nashville (BNA)	12,353	17.60%	70,190
15	Miami (MIA)	9,531	8.66%	110,014	**30**	Washington Dulles (IAD)	9,862	14.94%	66,018

Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

4.2 Georgia Nonhub Airports and Passenger Leakage

This section discusses the top "alternative" airports that are serving travelers associated with the catchment area for Georgia's nonhub airports. These are passengers who choose not to use their local airport. Overall,

the catchment areas for Georgia nonhub airports include 6.9 million O&D passengers. Only 14.8 percent of these were captured by the local nonhub airports in 2019. The other passengers used alternative airports.

4.2.1 Leakage to Hartsfield-Jackson Atlanta International Airport

Due to the proximity of several of Georgia's nonhub airports to this large hub, it is no surprise that Hartsfield-Jackson Atlanta International Airport is the airport of choice for over 55 percent of Georgia passengers not using their local airport. LaGuardia Airport, Los Angeles International Airport (LAX), and General Edward Lawrence Logan International Airport (Boston-(BOS)) are the top destinations sought by Georgia passengers who use Hartsfield-Jackson Atlanta International Airport as their alternative airport. Fort Lauderdale/Hollywood International Airport (FLL) and Chicago O'Hare International Airport (ORD) are the fourth and fifth top destinations for passengers using Hartsfield-Jackson Atlanta International Airport for their departures (**Table 4-2**).

This data is helpful to share with airlines to document the destinations of "leaked" passengers from the airport's catchment area. This information can inform an airline's business or marketing decisions. For example, perhaps Delta Air Lines could lower fares from nonhub airports to these five destinations in an attempt to retain passengers within each airport's catchment area.

Table 4-2: Georgia Nonhub Passengers Choosing Hartsfield-Jackson Atlanta International Airport Over Their Local Airport

Rank	Airport	Passengers Lost	Rank	Airport	Passengers Lost
1	New York LaGuardia (LGA)	148,538	**16**	Chicago Midway (MDW)	58,247
2	Los Angeles (LAX)	110,128	**17**	Tampa (TPA)	53,106
3	Boston (BOS)	100,465	**18**	Houston Bush (IAH)	50,708
4	Fort Lauderdale (FLL)	98,565	**19**	Minneapolis/St. Paul (MSP)	48,061
5	Chicago O'Hare (ORD)	97,745	**20**	San Francisco (SFO)	46,989
6	Orlando (MCO)	90,808	**21**	Phoenix (PHX)	45,503
7	Dallas/Fort Worth (DFW)	88,122	**22**	Dallas Love (DAL)	42,988
8	Denver (DEN)	85,330	**23**	Houston Hobby (HOU)	42,839
9	Las Vegas (LAS)	80,561	**24**	Seattle (SEA)	41,543
10	Washington National (DCA)	74,575	**25**	New York Kennedy (JFK)	39,520
11	Baltimore (BWI)	73,865	**26**	New Orleans (MSY)	39,043
12	Philadelphia (PHL)	73,560	**27**	Austin (AUS)	38,718
13	Detroit (DTW)	69,700	**28**	Cleveland (CLE)	34,563
14	New York Newark (EWR)	69,136	**29**	St. Louis (STL)	33,879
15	Miami (MIA)	65,192	**30**	Kansas City (MCI)	32,923

Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

4.2.2 Leakage to Jacksonville International Airport

As **Figure 4-3** indicates, Jacksonville International Airport is the airport of choice for 18 percent of Georgia's nonhub airport catchment area passengers who start their travel at an alternative airport instead of their local airport. This is significant as passengers lost to surrounding states reduce potential revenue for Georgia airports. The top five destinations for the Georgia passengers who originate at Jacksonville International are John F. Kennedy International Airport (JFK), General Edward Lawrence Logan International Airport (Boston), Chicago O'Hare International Airport, Ronald Reagan Washington National Airport (DCA), and Hartsfield-Jackson Atlanta International Airport (**Table 4-3**). Georgians who live in the southeastern part of the state are likely the ones flying to Atlanta from Jacksonville. Moreover, there is LCC service from Jacksonville International Airport to Hartsfield-Jackson Atlanta International Airport, which may make flying to Atlanta more cost effective than using a local Georgia airport.

Table 4-3: Georgia Nonhub Passengers Choosing Jacksonville International Airport Over Their Local Airport

Rank	Airport	Passengers Lost	Rank	Airport	Passengers Lost
1	New York Kennedy (JFK)	47,341	**16**	Las Vegas (LAS)	16,432
2	Boston (BOS)	40,380	**17**	Los Angeles (LAX)	15,227
3	Chicago O'Hare (ORD)	38,329	**18**	Cincinnati (CVG)	15,099
4	Washington National (DCA)	36,748	**19**	Miami (MIA)	14,439
5	New York Newark (EWR)	32,696	**20**	Pittsburgh (PIT)	13,357
6	Atlanta (ATL)	32,668	**21**	Washington Dulles (IAD)	12,711
7	Philadelphia (PHL)	32,479	**22**	Indianapolis (IND)	12,561
8	Baltimore (BWI)	28,988	**23**	Houston Bush (IAH)	12,363
9	Denver (DEN)	28,000	**24**	St. Louis (STL)	11,951
10	Fort Lauderdale (FLL)	26,394	**25**	San Diego (SAN)	11,204
11	Dallas/Fort Worth (DFW)	24,887	**26**	Chicago Midway (MDW)	10,934
12	Nashville (BNA)	23,121	**27**	Seattle (SEA)	10,933
13	New York LaGuardia (LGA)	22,119	**28**	Austin (AUS)	10,303
14	Detroit (DTW)	20,159	**29**	Phoenix (PHX)	10,281
15	Minneapolis/St. Paul (MSP)	18,017	**30**	Kansas City (MCI)	9,771

Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B); Airport Data, Inc., Airport Catchment Analytics database.

4.2.3 Leakage to Savannah/Hilton Head International Airport

Savannah/Hilton Head International Airport is the third-largest alternative airport capturing traffic from the nonhub airport catchment areas in Georgia. As **Figure 4-3** shows, Savannah/Hilton Head International Airport captures nearly nine percent of the leaked passengers. Three of the four top destinations from Savannah/Hilton Head International Airport are New York airports. Rounding out the top five markets are General Edward Lawrence Logan International Airport (Boston) and Chicago O'Hare International Airport (**Table 4-4**).

Table 4-4: Georgia Nonhub Passengers Choosing Savannah/Hilton Head International Airport Over Their Local Airport

Rank	Airport	Passengers Lost	Rank	Airport	Passengers Lost
1	New York Kennedy (JFK)	37,857	**16**	Los Angeles (LAX)	8,586
2	New York Newark (EWR)	29,877	**17**	Minneapolis/St. Paul (MSP)	7,560
3	Boston (BOS)	22,545	**18**	Washington Dulles (IAD)	6,823

Rank	Airport	Passengers Lost	Rank	Airport	Passengers Lost
4	New York LaGuardia (LGA)	16,563	19	Las Vegas (LAS)	6,772
5	Chicago O'Hare (ORD)	16,271	20	Nashville (BNA)	6,752
6	Philadelphia (PHL)	13,640	21	Houston Bush (IAH)	6,736
7	Dallas/Fort Worth (DFW)	11,230	22	Indianapolis (IND)	5,914
8	Atlanta (ATL)	11,114	23	San Francisco (SFO)	5,288
9	Cincinnati (CVG)	9,923	24	Charlotte (CLT)	5,283
10	Denver (DEN)	9,794	25	Miami (MIA)	5,253
11	Baltimore (BWI)	9,564	26	Seattle (SEA)	5,209
12	Washington National (DCA)	9,461	27	Louisville (SDF)	4,915
13	Cleveland (CLE)	8,925	28	San Diego (SAN)	4,818
14	Detroit (DTW)	8,874	29	Phoenix (PHX)	4,510
15	Pittsburgh (PIT)	8,628	30	Hartford (BDL)	4,467

Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B), Airport Data, Inc., Airport Catchment Analytics database.

4.2.4 Leakage to Orlando International Airport

Even though Orlando International Airport is 200 to 300 miles from the Southwest Georgia Regional Airport, Brunswick Golden Isles Airport, and Valdosta Regional Airport, it manages to capture over five percent of Georgia's nonhub catchment area passengers not using a local Georgia airport. Given the variety of LCC and ULCC which serve Orlando International Airport, it appears that value-oriented passengers are willing to drive a significant distance to reach an airport with lower fares (**Table 4-5**).

Table 4-5: Georgia Nonhub Passengers Choosing Orlando International Airport Over Their Local Airport

Rank	Airport	Passengers Lost	Rank	Airport	Passengers Lost
1	San Juan, PR (SJU)	34,136	16	Minneapolis/St. Paul (MSP)	5,349
2	New York Newark (EWR)	16,527	17	Baltimore (BWI)	5,248
3	Long Island Islip (ISP)	11,794	18	Buffalo (BUF)	5,044
4	Los Angeles (LAX)	11,163	19	Chicago Midway (MDW)	4,882
5	Philadelphia (PHL)	10,641	20	Las Vegas (LAS)	4,755
6	Providence (PVD)	8,788	21	San Francisco (SFO)	3,560
7	Detroit (DTW)	7,533	22	Dallas/Fort Worth (DFW)	3,430
8	Hartford (BDL)	7,046	23	Seattle (SEA)	3,408
9	Aguadilla (BQN)	6,873	24	Salt Lake City (SLC)	3,375
10	New York Kennedy (JFK)	6,814	25	Milwaukee (MKE)	3,319
11	Boston (BOS)	6,090	26	Albany, NY (ALB)	3,079
12	Atlantic City (ACY)	5,616	27	Houston Bush (IAH)	2,907
13	New York LaGuardia (LGA)	5,522	28	Washington National (DCA)	2,898
14	Denver (DEN)	5,412	29	Phoenix (PHX)	2,886
15	Chicago O'Hare (ORD)	5,361	30	Columbus, OH (CMH)	2,884

Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B), Airport Data, Inc., Airport Catchment Analytics database.

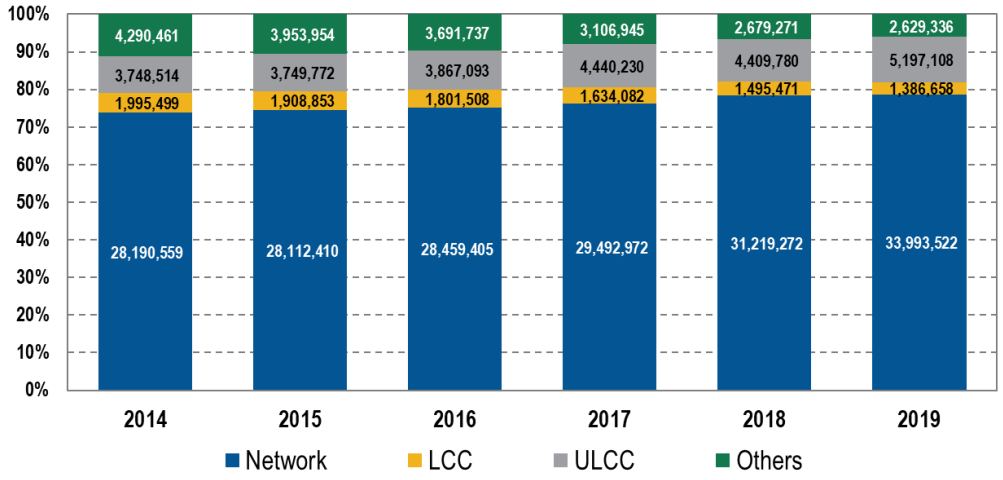
4.3 Performance Comparison of Georgia Nonhub Airports to All U.S. Nonhub Airports

4.3.1 Performance of Nonhub Airports Nationwide

As previously noted, one factor critical to the success of nonhub airports in the U.S. is connectivity to the greater commercial air transportation system. Connectivity (connecting flights) via large or medium hub airports enhances the strength of nonhub airports because travelers are able to access more service and departure options via connecting flights.

Nonhub airports are reliant on network carriers such as American Airlines, Delta Air Lines, and United Airlines for most of their scheduled commercial air service. Connecting service for nonhub airports is common because the demand that the nonhub market generates at the city-pair (point-to-point) level is typically not sufficient to economically support a nonstop flight. **Figure 4-5** illustrates the dependence on network carriers by nonhub airports in the U.S. This dependency is represented by the number of outbound seats by carrier type. As shown, network carriers provide 70-80 percent of all outbound seats at nonhub airports on a national basis.

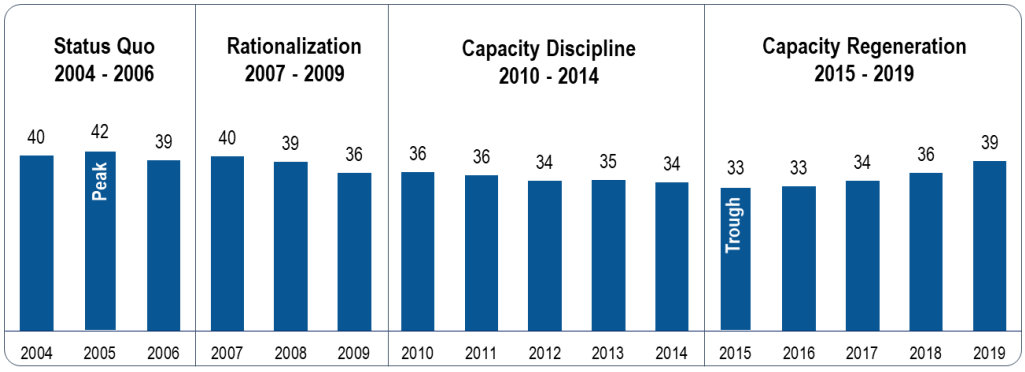
Figure 4-5: Total Outbound Seats at Nonhub Airports by Carrier Type



Note: "Network" includes American Airlines, Delta Air Lines, United Airlines, Alaska Airlines/Virgin America, and Hawaiian Airlines. "LCC" or the Low-Cost Carriers group include Southwest Airlines and JetBlue. "ULCC" or the Ultra Low-Cost Carriers group includes Frontier, Spirit, and Allegiant. "Others" includes all other carriers providing service.
Source: Airline Data, Inc., Airline schedule data.

The number of outbound domestic seats at nonhub airports declined from its peak in 2005 at 42 million seats to its lowest level in 2015 of 33 million seats (**Figure 4-6**). Since 2015, outbound domestic seats at nonhub airports have rebounded by more than 18%.

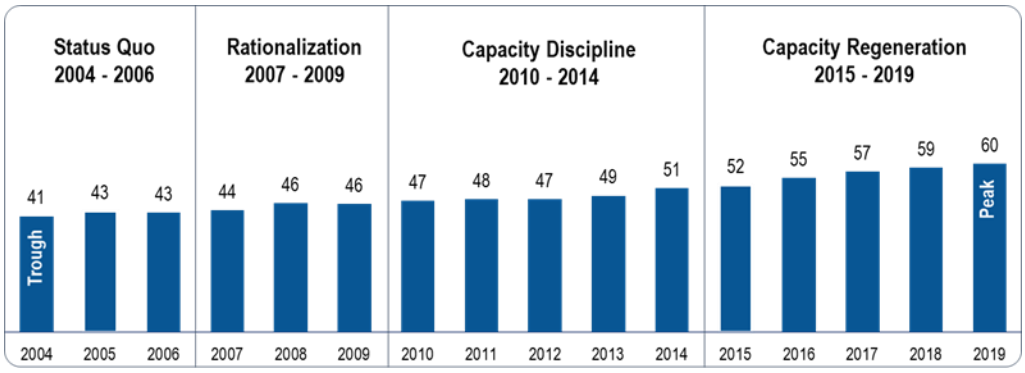
Figure 4-6: Number of Outbound Domestic Seats (in Millions) at Nonhub Airports, 2004 – 2019



Source: Airline Data, Inc., Airline schedule data, U.S. contiguous states only.

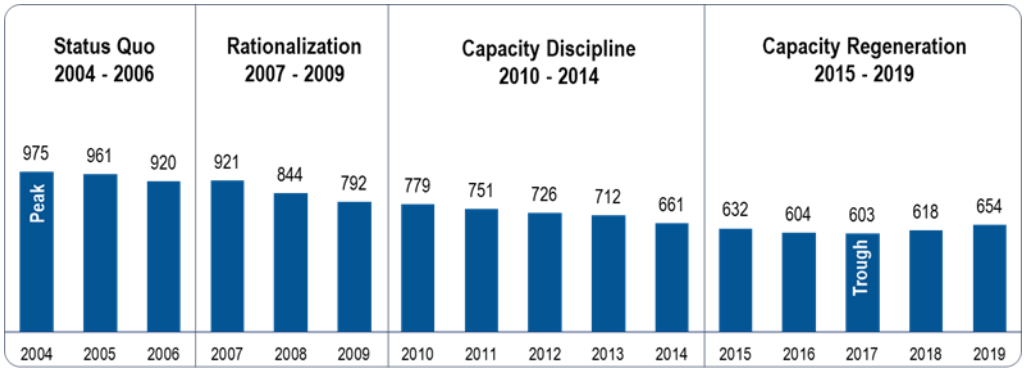
The growth in outbound seats from 2015 to the present is partially attributable to the increase in the average aircraft seating capacity. This is demonstrated in **Figure 4-7**, which shows a steady increase in average domestic seats per departure between 2015 and the present, despite a decline in departures that began in 2004 (**Figure 4-8**).

Figure 4-7: Average Domestic Seats per Departure at Nonhub Airports, 2004 – 2019



Source: Airline Data, Inc., Airline schedule data, U.S. contiguous states only.

Figure 4-8: Number of Departures (Thousands) at Nonhub Airports, 2004 – 2019



Source: Airline Data, Inc., Airline schedule data, U.S. contiguous states only.

Departure frequency is significant to nonhub airports because a reduction in available flights throughout the day makes it challenging to re-accommodate passengers in the event of a service disruption. An airport with a lower number of departures is generally less attractive to a traveler than an airport with more departure options.

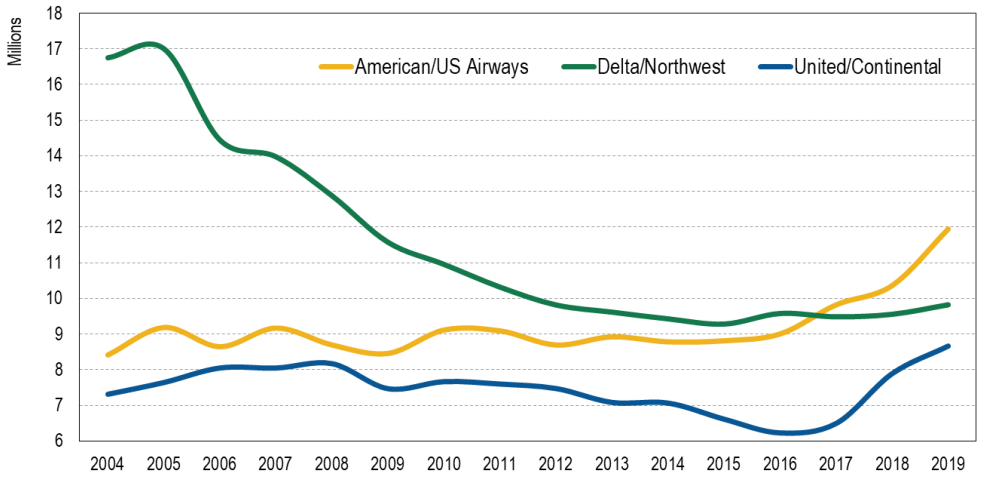
Nationwide, the number of departures at nonhub airports has declined steadily for almost a decade and a half. Peaking in 2004 at nearly one million, the number of departures at nonhub airports bottomed in 2017 to just over 600,000 (**Figure 4-7**). In 2018 the number of departures began to rebound, with 2019 marking the first year-over-year increase in departures since 2004.

This trend in increased departures suggests improving service opportunities for nonhub airports, as airlines add capacity in both the number of seats and departing flights.

4.3.2 Performance Comparison of Georgia's Nonhub Airports to U.S. Nonhub Airports

As previously noted, four of the five nonhub airports in Georgia have service from a single airline, Delta Air Lines. Today, Delta serves 57 nonhub airports from its "mega-hub" at Hartsfield-Jackson Atlanta International Airport. Fifty-one of those markets also have service from at least one other carrier. Following national trends over the past five years, Delta has had a network strategy to fly to larger markets with larger equipment. Therefore, it has been removing small regional jets from its fleet at a greater rate than American Airlines and United Airlines, whose domestic capacity (in terms of passenger seats) has increased significantly since 2016 (**Figure 4-9**). This trend is important because smaller regional jets have historically been the aircraft used to serve the nation's smaller nonhub airports. Nonhub airports having three frequencies with 50-seat aircraft are thought to be better than two frequencies with 76-seat aircraft. Giving passengers more choice of departure times is generally accepted as a better schedule product.

Figure 4-9: Domestic Capacity (Passenger Seats) by Network Carrier, 2004 – 2019



Source: Airline Data, Inc., Airline schedule data.

Further compounding issues for Georgia's nonhub airports that depend on Delta Air Lines is the fact that Delta has been focused on a strategy to build a presence in large markets like Seattle, San Jose, Raleigh-Durham, Boston, and Miami. This focus has the potential to distract the airline from nurturing its existing small markets in Georgia.

Similar to the U.S. as a whole, the nonhub airports in Georgia depend on network carriers for their connectivity. Service between Augusta Regional Airport, Southwest Georgia Regional Airport, Brunswick Golden Isles Airport, Columbus Airport, Valdosta Regional Airport, and Hartsfield-Jackson Atlanta International Airport

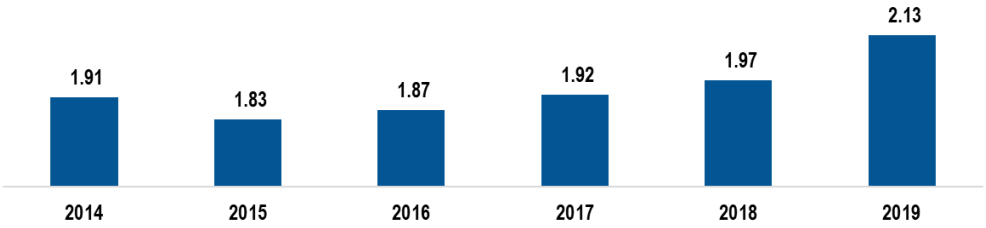
would not be possible without the connections to the myriad domestic and international airports that are available from Delta's Atlanta hub. In terms of points served, Atlanta offers the second greatest number of destinations among all connecting hubs in the U.S. This is critically important for nonhub airports that rely on connectivity to sustain their service.

As mentioned previously, Delta announced that Southwest Georgia Regional Airport, Brunswick Golden Isles Airport, Columbus Airport, and Valdosta Regional Airport will soon have additional service to Hartsfield-Jackson Atlanta International Airport (announced for late spring/early summer 2020). Augusta Regional Airport as of March 2020 has a second American Airlines daily route to Dallas/Fort Worth International Airport and one frequency per day to Ronald Reagan Washington National Airport as of January 2020. These additional services may be in jeopardy due to COVID-19 virus impacts on the aviation system.

While Middle Georgia Regional Airport's service to Baltimore-Washington Thurgood Marshall International Airport (BWI) technically does not connect to a hub, landing at BWI provides travelers from Middle Georgia Regional Airport access to many flights offered by Southwest Airlines, Spirit Airlines, and other low-cost carriers.

Connectivity is a key measurement in assessing a community's access to the commercial air transportation system. The average number of points served (large/medium airports) for all nonhub airports in the U.S. in 2019 is greater than two (**Figure 4-10**). When nonhub airports have flights to two or more larger/connecting airports, this often results in competition. Most Georgia nonhub airports have flights to only one airport, which is below the national average for other nonhub airports (**Table 4-6**).

Figure 4-10: Average Access to Large Hub Airport from U.S. Nonhub Airports



Note: Averages include limited, seasonal service to large hub airports.
Source: Airline Data, Inc., Airline schedule data.

Even though average access to large hub airports from Georgia's nonhub airports is lower than national averages, given the scope and scale of flights available at the Hartsfield-Jackson Atlanta International Airport, connectivity for Georgia's nonhub airports is very good.

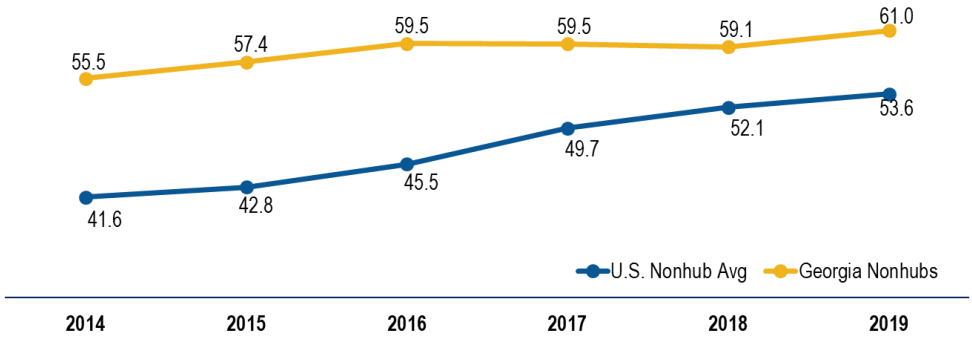
Table 4-6: Large Hub Access from Georgia's Nonhub Airports

Georgia Airport	2014	2015	2016	2017	2018	2019
Southwest Georgia Regional (ABY)	1	1	1	1	1	1
Augusta Regional Airport (AGS)	5	5	7	7	2	4
Brunswick Golden Isles Airport (BQK)	1	1	1	1	1	1
Columbus Airport (CSG)	1	1	1	1	1	1
Middle Georgia Regional Airport (MCN)	2	0	0	1	2	2
Valdosta Regional Airport (VLD)	1	1	1	1	1	1

Note: Counts include limited, seasonal service. In 2018 and 2019, Middle Georgia Regional Airport had seasonal service to Tampa International Airport.
Source: Airline Data, Inc., Airline schedule data.

Georgia's nonhub airports also compare favorably with the U.S. nonhub average for seats per commercial aircraft departure. In 2019, Georgia's nonhub airports were served by aircraft averaging 61 seats per departure, compared to an average of almost 54 for all U.S. nonhub airports (**Figure 4-11**). The ability of Georgia's nonhub airports to support larger aircraft signals that demand is strong for Georgia's nonhub markets.

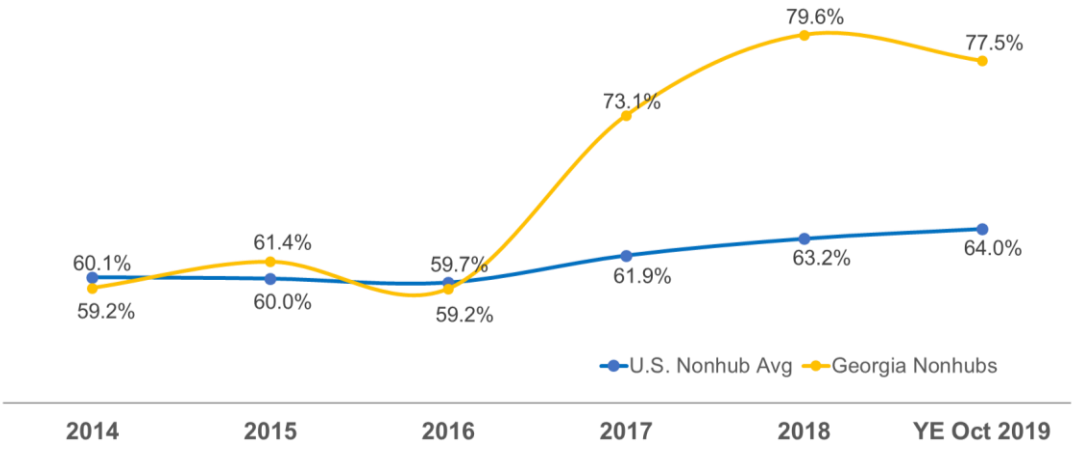
Figure 4-11: Average Seats per Departure – Georgia Nonhub Airports Versus U.S. Nonhub Airports, 2014 – 2019



Source: Airline Data, Inc., Airline schedule data.

Also relevant from an airline perspective is the fact that passenger load factors have been higher for Georgia's nonhub airports than the U.S. nonhub average in 2017, 2018, and 2019 (**Figure 4-12**). Load factor is defined by the Federal Aviation Administration (FAA) as the percentage of available seats that are filled with passengers. Load factor is an important data point for airlines when deciding whether to increase the size of aircraft, add new service, or even reduce service. The fact that Georgia's nonhub airports are able to maintain strong load factors, even when additional departing seats are added, reflects the strength of the air service demand for these airports.

Figure 4-12: Average Load Factor – Georgia Nonhub Airports Versus U.S. Nonhub Airports, 2014 – 2019



Note: YE = Year End
Source: U.S. Department of Transportation, Air Carrier Statistics Database (T-100).

The number of passenger enplanements is an important metric for airports; however, airlines look at the number of origin and destination (O&D) passengers as a measure of local demand. Enplaned or deplaned

passenger counts include both local and connecting traffic. O&D passenger counts, however, are based on the true origin and destination of enplaned and deplaned passengers, whether they fly nonstop or connect to complete a journey. Impressively, since 2014, O&D passengers at all six of Georgia's nonhub markets have grown more than 20 percent (**Table 4-7**).

Passenger growth of 10 percent or more is generally accepted by the airline industry as a good indicator of demand. Growth in passenger demand at Georgia's nonhub airports underscores strong demand trends across the state. The growth at Middle Georgia Regional Airport can be explained by the fact that the airport was without commercial airline service until the addition of Essential Air Service (EAS) by Contour Airlines in 2017. This was the first, regularly scheduled commercial service at the airport since 2014.

Table 4-7: Passenger Traffic Growth by Georgia Nonhub Airports, 2014 – 2019

Georgia Airport	2014 to Year End Third Quarter 2019 (YE 3Q19) O&D Passenger Change
Southwest Georgia Regional (ABY)	30.00%
Augusta Regional Airport (AGS)	23.20%
Brunswick Golden Isles Airport (BQK)	23.10%
Columbus Airport (CSG)	30.90%
Middle Georgia Regional Airport (MCN)	1119.70%
Valdosta Regional Airport (VLD)	25.60%

Source: U.S. Department of Transportation, Air Carrier Statistics Database (T-100).

Despite passenger growth at Georgia's nonhub airports, outbound seat capacity has not grown commensurately with other nonhub airports, other than at Augusta Regional Airport and Middle Georgia Regional Airport (**Table 4-8**). However, as discussed earlier, the average seats per departure for Georgia nonhub airports exceeds the national nonhub average. Georgia nonhub airport load factors also exceed the national nonhub average. The increase in load factor is the result of organic growth, or strong economies creating new demand.

Table 4-8: Outbound Seat Capacity of Georgia Nonhub Airports, 2014 – 2019

Georgia Airport	2014 to 2019 Outbound Seat Capacity Change
Southwest Georgia Regional (ABY)	0.90%
Augusta Regional Airport (AGS)	20.10%
Brunswick Golden Isles Airport (BQK)	2.30%
Columbus Airport (CSG)	-4.20%
Middle Georgia Regional Airport (MCN)	14.50%
Valdosta Regional Airport (VLD)	1.20%

Source: Airline Data, Inc., Airline schedule data.

4.4 Statewide Findings from Leakage and Benchmarking Analyses for Nonhub Airports

Section 3 presented the results of Benchmarking and Leakage/Market Potential analyses for individual airports in Georgia; this section discusses statewide average performance measures for the nonhub airports in Georgia based on data presented in **Section 3** and in the individual airport Leakage/Market Potential and Benchmarking Reports.

Georgia's six nonhub airports have a total of 626,874 annual departing seats – a 12 percent increase over the past five years. This metric is determined by the number of seats on departing aircraft and the number of flights

per day. The increase is largely due to added flights at Augusta Regional Airport. This metric will significantly increase further if the planned additional departures announced by Delta Air Lines for Albany, Brunswick, Columbus and Valdosta become a reality after the COVID-19 pandemic ends. These additional departures would add an estimated total of 200 daily departing seats, or over 73,000 annual seats, for Georgia's nonhubs.

Fares from Georgia's nonhub airports exceed those from alternative airports with service to top markets such as New York, Boston, and Los Angeles by an average of 49 percent. As examples, the Georgia nonhub average one-way fares versus the fares from an alternative airport in 2019 (e.g. Atlanta, Savannah, Jacksonville) were New York $229/$153, Boston $226/$142, Chicago $225/$159, Los Angeles $320/$233, and Washington, D.C. $253/$147. This difference can be significant (approximately $600) for a family of four flying roundtrip to these destinations.

Georgia's nonhubs generally compare favorably with the U.S. nonhub average with respect to economic and demographic metrics. However, the average income per capita for Georgia nonhub communities ($37,418) is significantly less than the U.S. average for nonhub airport markets ($45,036). This indicates there is less discretionary income in Georgia nonhub communities and may be one reason passengers drive to alternative airports to seek less expensive fares.

The average O&D passenger traffic per outbound seat for the five Georgia nonhubs with network carrier service is 1.60 and exceeds the U.S. nonhub average of 1.31. When including Middle Georgia Regional Airport with its minimal small regional jet service, Georgia's average drops to 1.41, but still exceeds the national average. This indicates a strong demand for the service that is provided at Georgia nonhub airports.

The average number of outbound seats per aircraft departure for Georgia's nonhub airports is 61 and similar to the U.S. nonhub average of almost 54. (While the four Georgia nonhub airports served exclusively by Delta Air Lines with service to Atlanta have 50-seat aircraft, those aircraft serving Augusta Regional Airport are larger, which is why the average number of outbound seats exceeds 50.)

Passenger load factors have been higher for Georgia's nonhub airports than the U.S. nonhub average in 2017, 2018, and 2019 (**Figure 4-12**), which reflects the strength of the air service demand in the nonhub markets.

The average O&D passengers per capita metric, also known as "propensity to fly," for Georgia nonhubs (0.49) is considerably lower than the U.S. nonhub average (1.49). This reflects significant passenger leakage to other, competing airports, largely from the strong draw of Hartsfield-Jackson Atlanta International Airport.

4.5 Loss of Service Scenarios

As mentioned previously, most of the nonhub, commercial service airports in Georgia rely on a single service by Delta Air Lines to Hartsfield-Jackson Atlanta International Airport. In the event of a carrier loss, two scenarios were analyzed: the replacement of air service by an existing airline (should Delta Air Lines no longer wish to serve Georgia's nonhub airports) to another airport hub and potential service from a new entrant to the market.

4.5.1 New Service from Existing Airline

The following discussion assumes that Delta Air Lines discontinues service to one or all five of the nonhub Georgia airports currently served. It also assumes that replacement service requires access to a connecting hub. Replacement air service is further assumed to be provided by American Airlines, United Airlines, or both airlines because they have connecting hubs. American Airlines is the carrier with a connecting hub operation that has the maximum amount of connectivity that can be created for nonhub passengers flying on American services.

American Airlines' hubs considered included:

- Charlotte Douglas International Airport (CLT)
- Chicago O'Hare International Airport (ORD)
- Dallas/Fort Worth International Airport (DFW)
- Philadelphia International Airport (PHL)

United Airlines' hubs considered included:

- Chicago O'Hare International Airport (ORD)
- George Bush Intercontinental Airport (IAH) in Houston
- Newark Liberty International Airport (EWR)
- Washington Dulles International Airport (IAD)

Each potential hub listed above was reviewed for its ability to re-accommodate passenger traffic, relative to the passenger traffic that flows through Hartsfield-Jackson Atlanta International Airport today. Mileage was considered to account for each potential hub's geography and its strategy for deploying regional aircraft. Alternative hub recommendations also considered the results of separate leakage and benchmarking analyses performed for Georgia's nonhub airports that are part of the overall Georgia Statewide Air Service Study (**Section 3**).

The most probable replacement hubs for lost Atlanta service from Delta for Southwest Georgia Regional Airport, Brunswick Golden Isles Airport, Columbus Airport, and Valdosta Regional Airport would be: (1) Charlotte Douglas International Airport and (2) Dallas/Ft. Worth International Airport. Both hubs are served by American Airlines. Given the relatively low level of reported passenger traffic for each of these four Georgia nonhub markets, Dallas/Ft. Worth might be a stretch for American given the mileage to this hub versus starting service to Charlotte as a replacement. Long mileage equates to more airplane time. The distance to Charlotte versus Dallas/Ft. Worth is much less, and therefore more frequency of air service would be likely.

Augusta Regional Airport currently has service to Dallas/Ft. Worth and Charlotte. Dallas/Ft. Worth would likely be the first choice to replace Atlanta based on the match of the Dallas/Ft. Worth hub to the passenger traffic patterns that exist today at Augusta and explains why American is adding frequency in the market. The next logical hub for Augusta after Dallas/Ft Worth and Charlotte would be United or American to Chicago O'Hare.

4.5.2 New Service from New Airlines

Georgia airports with leisure-oriented markets may be able to support a niche airline offering point-to-point service. As mentioned in **Section 2.2.4**, two proposed, leisure-oriented airlines have recently been announced. Breeze Airways will initially operate Embraer 195 (118-seat) aircraft and will then begin taking delivery of sixty Airbus A220 aircraft in 2021. Two airports in Georgia, Savannah/Hilton-Head International Airport and Brunswick Golden Isles Airport, could accommodate this type of service. Both are established, leisure-oriented destinations (Brunswick Golden Isles Airport is associated with St. Simon's Island). Allegiant Air has already made the Golden Isles a secondary leisure destination on its network by serving Savannah. Therefore, it is unlikely that the airline would duplicate that service by adding Brunswick. Further, Spirit and Frontier fly very large aircraft. If they were to serve the market, it would be on a less-than-daily service that may not be attractive to clientele accessing St. Simon's Island.

The new, low-fare airline proposed in 2020 by the former CFO of United Airlines would offer nonstop service from secondary markets such as midsize and larger cities to vacation spots in Florida and Las Vegas. This airline would employ Airbus 737-800 aircraft, with 175 seats. These larger aircraft may be appropriate for the existing

market served by Savannah/Hilton-Head International Airport. Georgia's nonhub airport markets are not likely candidates for this new airline.

These plans suggest that the respective airline heads believe that there is room for an upstart carrier that could exploit holes in the established, hub-and-spoke market structure by providing point-to-point service to leisure destinations and large markets.

5. Delta Air Lines' Scheduled Commercial Service and Hartsfield-Jackson Atlanta International Airport

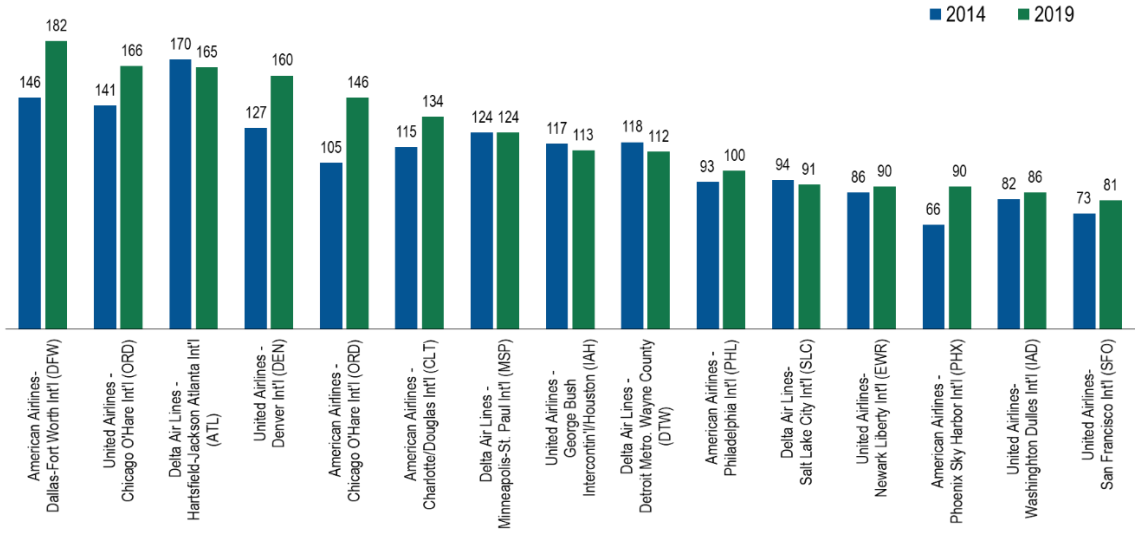
5.1 Delta Air Lines' Performance in Other Nonhub Markets

Delta Air Lines acts as the backbone of commercial air service for nonhub airports in Georgia. As mentioned previously, Delta Air Lines serves all five of Georgia's nonhub airports with scheduled commercial service by a mainline carrier and serves four of these exclusively, with service to Hartsfield-Jackson Atlanta International Airport.

Since its merger with Northwest Airlines in 2009, Delta Air Lines' operation at Hartsfield-Jackson Atlanta International Airport has provided an example to other network carriers in the U.S. who aspire to build large hubs, for its scope (number of other airports or "points" served) and scale (number of departures and/or seats). Delta Air Lines' hub at Hartsfield-Jackson Atlanta International Airport serves 165 points. For comparison, American Airlines' hub at Charlotte Douglas International Airport serves 134 points and United Airlines' hub at Washington-Dulles International Airport serves 86 points. American Airlines' hub at Charlotte Douglas International Airport is offered for comparison because it competes with Delta's hub at Hartsfield-Jackson Atlanta International Airport for much of the same passenger traffic. United Airlines' hub at Washington-Dulles International Airport is offered for comparison as it is one of the closest, comparable hubs in the southeast U.S.

In recent years, other carrier hubs have increased in scope and scale. In fact, as **Figure 5-1** indicates, while Delta Air Lines' Hartsfield-Jackson Atlanta International Airport hub served more points (170) than other comparable hubs in 2014, by 2019, American Airlines' Dallas/Fort Worth International Airport hub had surpassed it in terms of points served, with United Airlines' Denver International Airport hub not far behind. In general, the more points served, the higher the connectivity for those nonhub airports with service to the hub.

Figure 5-1: Number of Domestic Points Served Nonstop by Airline, 2014 Versus 2019

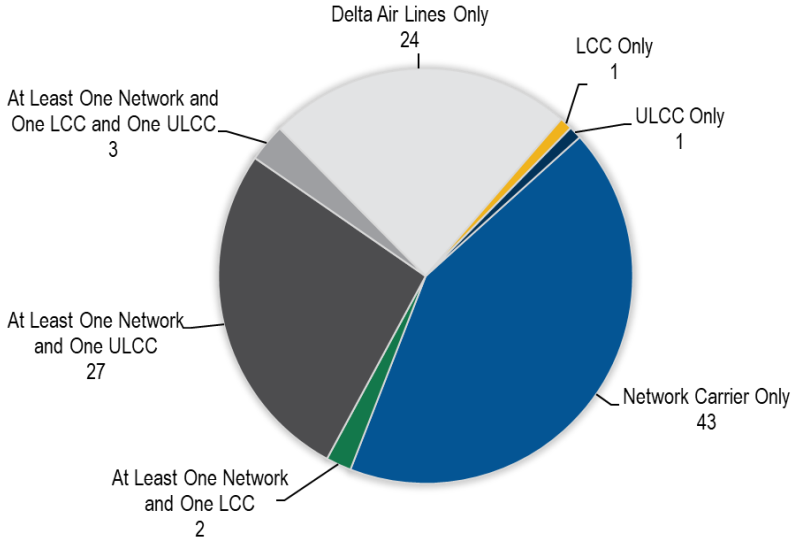


Source: Airline Data, Inc., Airline schedule data

An industry metric often used to assess competition in markets is a threshold of five percent market share. Of all points served throughout the U.S., Delta Air Lines has at least a five percent "seat share" of passenger traffic at 101 nonhub markets across its network (**Figure 5-2**). In 43 of those markets, Delta Air Lines competes with at least one other network carrier (either American Airlines or United Airlines). In three of the markets, Delta Air Lines competes with at least one LCC such as JetBlue Airlines or Southwest Airlines and one ULCC, such as Allegiant Airlines, Frontier Airlines, and Spirit Airlines. The presence of a low-cost carrier presents pressure for network carriers to drive down prices to compete.

Importantly, as **Figure 5-2** depicts, Delta Air Lines serves 24 nonhub airports in the U.S. with no competition, including four nonhub airports in Georgia (Southwest Georgia Regional Airport, Brunswick Golden Isles Airport, Columbus Airport, and Valdosta Regional Airport).

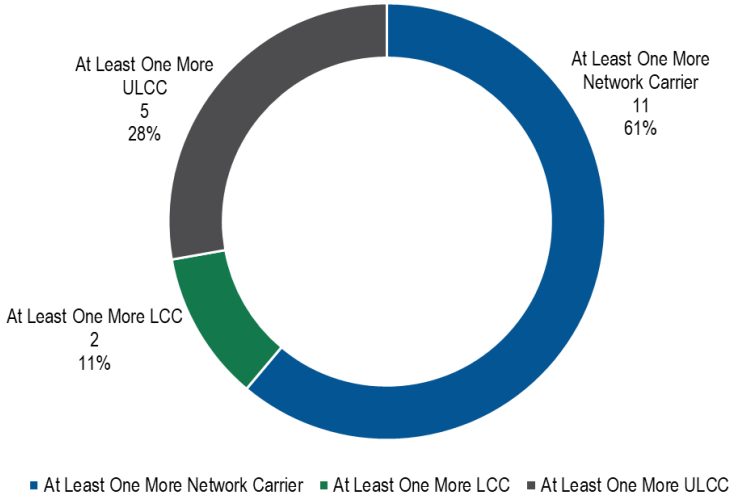
Figure 5-2: U.S. Nonhub Airports Where Delta Air Lines Has a Seat Share of 5% or More, 2019



Source: Airline Data, Inc., Airline schedule data

Of these 101 nonhub airport markets served by Delta Air Lines, 18 have experienced the addition of air service since 2014, increasing competition in those markets (**Figure 5-3**). Specific to Georgia airports, American Airlines' addition of service to Augusta Regional Airport, which was once a Delta Air Lines-exclusive airport, establishes that there is room for two carriers in some markets.

Figure 5-3: Increased Competition Since 2014 at 18 Nonhub Airports Served by Delta Air Lines



Source: Airline Data, Inc., Airline schedule data

Network carriers tend to compete with other network carriers to connect nonhub airports to their respective hubs. In the 43 U.S. nonhub markets where Delta Air Lines faces competition from another network carrier, the overall level of passenger *traffic* increased in 31 markets (72 percent) and Delta Air Lines' share of the passenger traffic decreased in 26 of the 43 markets (60 percent)(**Figure 5-4**). Despite the drop in passenger traffic share, Delta Air Lines' *absolute* level of traffic increased in 60 percent of the markets (26 of the 43 markets). In other words, Delta Air Lines is enjoying a smaller share of a bigger pie, ultimately increasing its absolute level of passenger traffic.

Figure 5-4: Delta Air Lines' Passenger Traffic Performance by Market and Competitive Makeup, 2014 Versus 2019

	Absolute Level		Delta Share		Delta Absolute	
Competition	Increase	Decrease	Increase	Decrease	Increase	Decrease
Delta Air Lines Only	21	3	NM*	NM*	NM*	NM*
Network Only	31	12	17	26	26	17
Network + LCC + ULCC	1	2	1	2	0	3
Network + LCC	2	0	1	1	2	0
Network + ULCC	18	9	8	19	16	11
LCC Only	0	1	0	1	0	1
ULCC Only	0	1	1	0	1	0

NM = Not Meaningful
Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B)

Between 2014 and 2019, Delta Air Lines' share of passenger *revenue* decreased at 25 of 43 nonhub airports; this was a 58 percent decrease. However, between 2014 and 2019, Delta Air Lines saw an *absolute* increase in *revenue performance* in 32 of these 43 markets because the overall level of revenue in 32 of the 43 (74 percent) nonhub markets increased (**Figure 5-5**).

Figure 5-5: Delta Air Lines' Revenue Performance by Market and Competitive Makeup, 2014 Versus 2019

	Absolute Level		Delta Share		Delta Absolute	
Competition	Increase	Decrease	Increase	Decrease	Increase	Decrease
Delta Air Lines Only	18	6	NM*	NM*	NM*	NM*
Network Only	32	11	18	25	30	13
Network + LCC + ULCC	0	3	2	1	0	3
Network + LCC	2	0	1	1	2	0
Network + ULCC	19	8	11	16	16	11
LCC Only	1	0	0	1	0	1
ULCC Only	0	1	1	0	1	0

NM = Not Meaningful
Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B)

These analyses demonstrate that Delta Air Lines has withstood additional competition in U.S. nonhub markets around the country.

In Georgia, the results of analyses and associated conclusions are similar. **Figure 5-6** illustrates Delta Air Lines' passenger performance at Georgia's nonhub airports between 2014 and 2019. While it is not a nonhub market, Savannah/Hilton Head International Airport (SAV) is included in this analysis because of its recent growth in capacity/airline service. This includes significant levels of new service over the past three years provided by a variety of network carriers, LCC, and ULCC which serve the airport. Additional service and carriers have helped to diminish Delta Air Lines' market share at SAV since 2014. As **Figure 5-6** shows, despite the competition it faces at Savannah/Hilton Head International Airport (SAV) and Augusta Regional Airport (AGS), Delta Air Lines' absolute number of passengers carried increased. This absolute increase at SAV took place despite a decrease in passenger share at this airport.

Figure 5-6: Delta Air Lines' Passenger Traffic Performance at Small Airports in Georgia, 2014 Versus 2019

			Absolute Level		Delta Share		Delta Absolute	
Airport	Airport Hub Size	Competition Makeup	Increase	Decrease	Increase	Decrease	Increase	Decrease
SAV	Small Hub	Network + LCC + ULCC	✓			✓	✓	
AGS	Nonhub	Network Only	✓		✓		✓	
ABY	Nonhub	DL Only	✓					
BQK	Nonhub	DL Only	✓					
CSG	Nonhub	DL Only	✓					
VLD	Nonhub	DL Only	✓					

Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B)

In terms of revenue, which is arguably a more important indicator for airlines, the results are similar to those for passenger performance. Delta Air Lines' share of revenue decreased at Savannah/Hilton Head International Airport between 2014 and 2019; however, its absolute level of revenue earned increased at both Augusta and Savannah where Delta faces competition from other airlines. At the nonhub airports in Georgia, including at Augusta Regional Airport, Delta Air Lines' share of passenger revenue and its absolute level of passenger revenue increased between 2014 and 2019 (**Figure 5-7**).

This analysis shows that, despite competition from other airlines, including LCCs and ULCCs, Delta Air Lines has enjoyed an increase in both absolute passenger share and absolute revenues nationally and in Georgia. This is encouraging for those nonhub airports in Georgia which rely on Delta Air Lines for their air service.

Figure 5-7: Delta Air Lines' Revenue Performance at Small Airports in Georgia, 2014 Versus 2019

			Absolute Level		Delta Share		Delta Absolute	
Airport	Airport Hub Size	Competition Makeup	Increase	Decrease	Increase	Decrease	Increase	Decrease
SAV	Small Hub	Network + LCC + ULCC	✓			✓	✓	
AGS	Nonhub	Network Only	✓		✓		✓	
ABY	Nonhub	DL Only	✓					
BQK	Nonhub	DL Only	✓					
CSG	Nonhub	DL Only	✓					
VLD	Nonhub	DL Only	✓					

Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B)

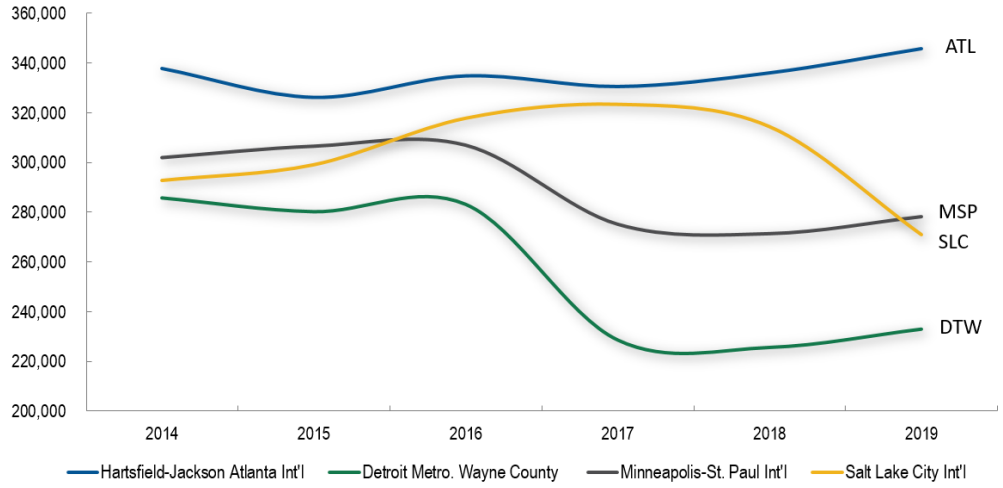
5.2 Delta Air Lines Hub Comparisons – Georgia Airports versus Peer Markets

To understand the dependence on Delta Air Lines by the nonhub airports in Georgia, an analysis was conducted to compare Georgia airports to other nonhub U.S. markets that are also exclusively served by Delta Air Lines. The comparison markets include hubs for Delta Air Lines at Detroit Metropolitan Wayne County Airport, Minneapolis-St. Paul International Airport, and Salt Lake City International Airport.

5.2.1 Seat Capacity

As is shown in **Figure 5-8**, as compared to these three other hubs for Delta Air Lines, the nonhub airports in Georgia, which are exclusively served by Delta Air Lines to Hartsfield-Jackson Atlanta International Airport, have maintained between approximately 340,000 and 350,000 outbound seats between 2014 and 2019, while the other three Delta hub airports have experienced an overall net decline in outbound seats. At the time this report was prepared (early 2020), Salt Lake City International Airport was experiencing a decline in outbound seats provided by Delta Air Lines. Minneapolis-St. Paul International Airport and Detroit Metropolitan Wayne County Airport experienced a dip in outbound seats between 2016 and 2017. At the same time, Georgia's nonhub airports experienced a slight increase in seats. When an airline reduces service at an airport, it is generally a reaction to poor performance of its routes. Since the nonhub Georgia airports have not experienced a decline, it might be concluded that their performance is at least adequate.

Figure 5-8: Annual Outbound Seats to Delta Air Lines-Exclusive Nonhub Markets from Hubs, 2014 – 2019

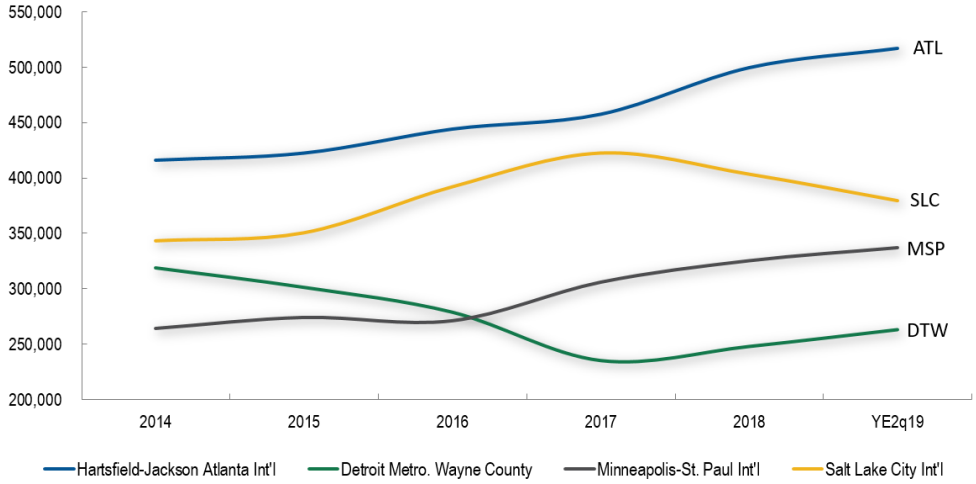


Source: Airline Data, Inc., Airline schedule data

5.2.2 Passenger Traffic

The nonhub airports in Georgia served exclusively by Delta Air Lines have performed very well compared to other nonhub markets served exclusively by Delta Air Lines. Despite modest numbers of new seats added in three of the four markets by Delta Air Lines, passenger traffic has grown at a higher rate for the Georgia nonhub airports than for the peer markets. The passenger performance at similarly situated nonhub airports served from Delta Air Lines' other connecting hubs shows mixed results. This was likely because the number of seats was reduced at the other Delta connecting hubs since 2014 (**Figure 5-9**). The nonhub airports exclusively served by Delta Air Lines to Detroit Metropolitan Wayne County Airport have less passenger traffic today than in 2014, which is likely associated with the sharp decrease in service by Delta Air Lines to the Detroit hub during 2016 and 2017 as illustrated in **Figure 5-8**.

Figure 5-9: Sum of Nonhub Airport Passenger Traffic Served Exclusively by Delta Air Lines from Its Hubs, 2014 – YE2019

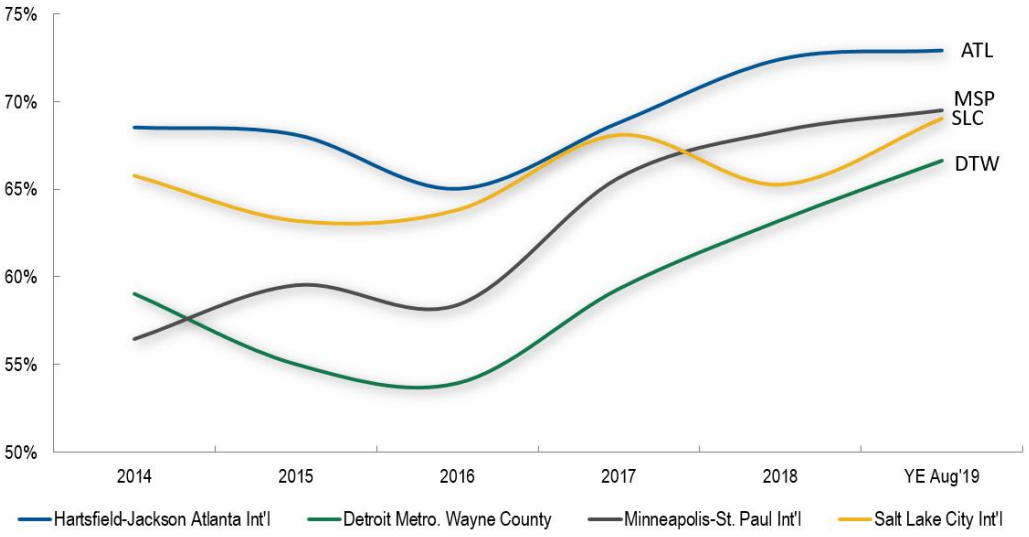


Source: U.S. Department of Transportation, Airline Origin and Destination Survey (DB1B)

5.2.3 Load Factor

Load factor is defined by the FAA as the percentage of available seats that are filled with passengers. It is an important data point for airlines when deciding whether to increase the size of aircraft, add new service, or even reduce service to a particular airport. Passenger load factors at Georgia's nonhub airports served only by Delta Air Lines are higher when compared to the three similarly situated markets served exclusively by Delta Air Lines to the other three connecting hubs (**Figure 5-10**). The fact that load factors remain high despite the additional seat capacity being added to the Georgia market underscores the strength of demand at Georgia's nonhub airports. The increases in load factor at Detroit Metropolitan Wayne County Airport and Minneapolis-St. Paul International Airport are more likely related to Delta Air Lines' reduced capacity at the airports than to increased demand.

Figure 5-10: Average Load Factor in Nonhub Airports Served Exclusively by Delta Air Lines, 2014 – YE2019



Source: U.S. Department of Transportation, Air Carrier Statistics Database (T-100)

5.2.4 Conclusion and Findings

The purpose of comparing Georgia's nonhub airports which are served exclusively by Delta Air Lines to Hartsfield-Jackson Atlanta International Airport to nonhub airports in other parts of the country which are also exclusively served by Delta Air Lines is to gauge the performance of Georgia's nonhub airports against other comparable nonhub markets. The analysis shows that Georgia airports compare favorably to the three other Delta hubs where it serves nonhub airports exclusively. This further signifies the strength of demand in Georgia's nonhub markets, as Delta Air Lines has maintained its level of capacity.

- The nonhub airports in Georgia have maintained their levels of outbound seats between 2014 and 2019, while the other three Delta hub airports have experienced an overall net decline in outbound seats.
- The nonhub airports in Georgia have enjoyed a higher rate of growth in passenger traffic than those in the three peer markets.
- The nonhub airports in Georgia report higher load factors than the three similarly situated markets.

6. The Future of Georgia's Commercial Air Service

In general, the analyses contained in this report conclude that the commercial service airports in Georgia are performing well.

As documented in **Section 3**, Hartsfield-Jackson Atlanta International Airport remains one of the busiest airports in the U.S., enplaning 53.1 million passengers in 2019. The increase in service by LCCs and ULCCs such as Southwest Airlines, Frontier Airlines, and Spirit Airlines has increased competition at the airport. Despite the competition, Delta Air Lines has maintained its relatively consistent share (approximately 60 percent) of all passengers. Following national trends, aircraft serving Hartsfield-Jackson Atlanta International Airport are getting larger; low-cost airlines especially use large airplanes as they strive to maximize revenue.

Savannah/Hilton Head International Airport has seen significant growth in the past several years, thanks in part to its importance as a leisure destination. While Delta Air Lines continues to capture a large share of the airport's passengers (34 percent in 2019), JetBlue Airlines (an LCC) and Allegiant Air (a ULCC) captured almost 20 percent of the market's passengers in 2019. This underscores the airport's importance as a leisure destination; leisure travelers are typically more fare sensitive. Savannah/Hilton Head International Airport has been very successful in attracting new airline service.

As **Section 3** also documents, existing conditions in Georgia demonstrate that, in general, its nonhub airports have also enjoyed strong performance in recent years and are able to support their existing and newly proposed service by Delta Air Lines at four nonhub airports (Southwest Georgia Regional Airport, Brunswick Golden Isles Airport, Columbus Airport, and Valdosta Regional Airport) and by American Airlines at Augusta Regional Airport.

Section 5 discussed Delta Air Lines, which provides the bulk of commercial air service to Georgia's small airports, including the fact that the airline has withstood competition in U.S. nonhub airports across the country as well as in Georgia with increases in both absolute passenger traffic performance and absolute revenues.

There are other factors which could impact Georgia's commercial air service system in the short and long term discussed in the following sections.

6.1 The COVID-19 Pandemic

It is unknown what long-term economic impacts the COVID-19 pandemic will have on Georgia's commercial airports and their air service offerings. The CARES Act, passed by the federal government in March 2020, provides $25 billion in loan guarantees to U.S. airline passenger carriers with an additional $4 billion allocated to cargo carriers.

The subsequent USDOT Order 2020-3-10, Continuation of Certain Air Service, requires that airlines who accept financial assistance from the CARES Act maintain a minimum level of air service at least through September 30, 2020. For points (geographic areas, not necessarily airports) served at least five days weekly based on airline schedules prior to March 1, 2020, airlines must continue offering at least one flight per day, five days per week. For points served fewer than five days weekly, carriers must maintain at least one scheduled weekly flight.

In April 2020, it was announced that several major airlines, including Delta Air Lines and American Airlines, had accepted federal financial assistance.[44] If the airlines agree to the terms of the financial package, then the nonhub airports in Georgia would maintain a minimum level of service, at least through September 2020.

[44] https://www.nytimes.com/reuters/2020/04/13/business/13reuters-health-coronavirus-usa-airlines.html?auth=login-email&login=email

Airport executives' focus will likely shift from a strategy to attract additional air service and to implement the new and recently announced air service (such as at Augusta Regional Airport) to retaining current levels of service.

If economic conditions after September 2020 result in an airport's total loss of air service, it is anticipated that the demand for ground shuttle service to Hartsfield-Jackson Atlanta International Airport – similar to what currently exists for Columbus Airport, Middle Georgia Regional Airport, Athens-Ben Epps Airport, and Augusta Regional Airport – will increase and broaden to other airports. Some airports may also seek to point-to-point service options through a low-cost/ultra-low-cost carrier or seek to improve air charter service capabilities for their communities.

6.2 The Presence of Hartsfield-Jackson Atlanta International Airport

The proximity of a smaller nonhub airport to a legacy network hub, especially a hub served by low-cost airlines, is a significant challenge for nonhub airports that often cannot compete with larger hubs on service or price. As noted in **Figure 4-3**, half of all passengers within Georgia nonhub airport catchment areas choose to fly out of Hartsfield-Jackson Atlanta International Airport instead of their local airport. In this respect, the proximity of this large hub to Georgia's nonhub airports impacts their vitality by capturing passengers associated with their local catchment areas.

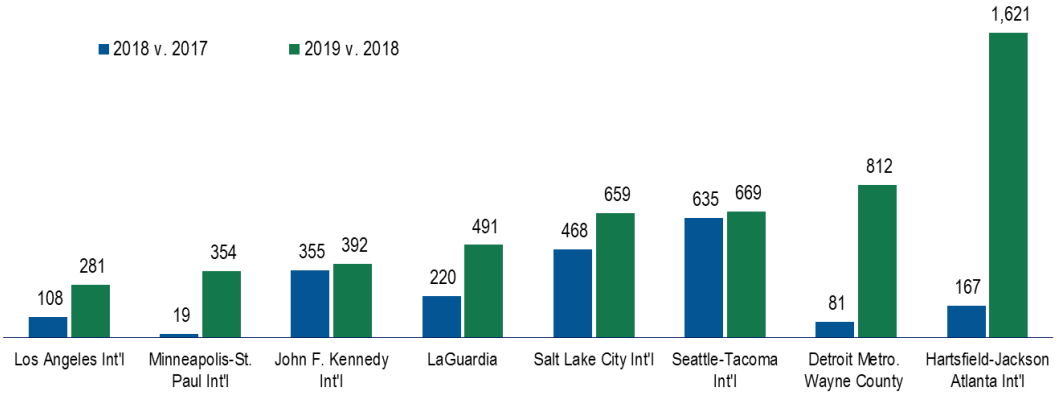
However, the presence of Hartsfield-Jackson Atlanta International Airport is also an asset to those same nonhub airports because it connects them to the larger domestic and international commercial aviation systems.

6.3 Increased Seat Capacity

Between 2018 and 2019, Delta Air Lines added over 1.6 million seats at Hartsfield-Jackson Atlanta International Airport (**Figure 6-1**) in the form of larger aircraft, mimicking the nationwide trend of moving from smaller regional aircraft to larger aircraft with higher seating capacities. A higher number of available seats allows an airline to maximize revenues while offering lower fares, and larger aircraft can fly more passengers with fewer departures, economizing on fuel and labor costs.

On one hand, the additional capacity at Hartsfield-Jackson Atlanta International is an asset to Georgia's nonhub airports. However, on the other hand, the additional capacity and associated lower fares at the larger hub also increases the desirability of departing directly from Hartsfield-Jackson Atlanta International Airport. This could exacerbate passenger leakage from nonhub airport catchment areas.

Figure 6-1: Annual Change in Delta Air Lines' Seat Capacity (in Thousands)



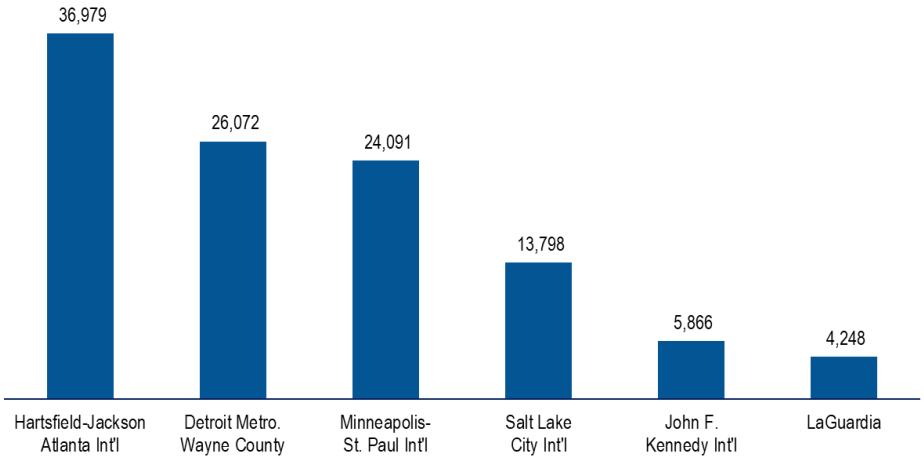
Source: Airline Data, Inc., Airline schedule data

6.4 Fleet Size Reconfiguration

The industry-wide trend of replacing small regional jets with larger aircraft is a threat to small airports such as Georgia's nonhub airports. Smaller nonhub airports are typically served by small regional aircraft. Small community air service is dependent on the small jet, as it is "right-sized" for most nonhub markets.

Delta Air Lines, which provides the bulk of commercial air service to Georgia's nonhub airports, was the first of the network carriers to begin replacing the small jet with larger aircraft beginning in the early 2010s. However, compared to other Delta Air Lines hubs in the U.S., Hartsfield-Jackson Atlanta International Airport still has the most departures by small regional jets (**Figure 6-2**). This is good news for Georgia's nonhub airports that rely on those aircraft for their commercial air service.

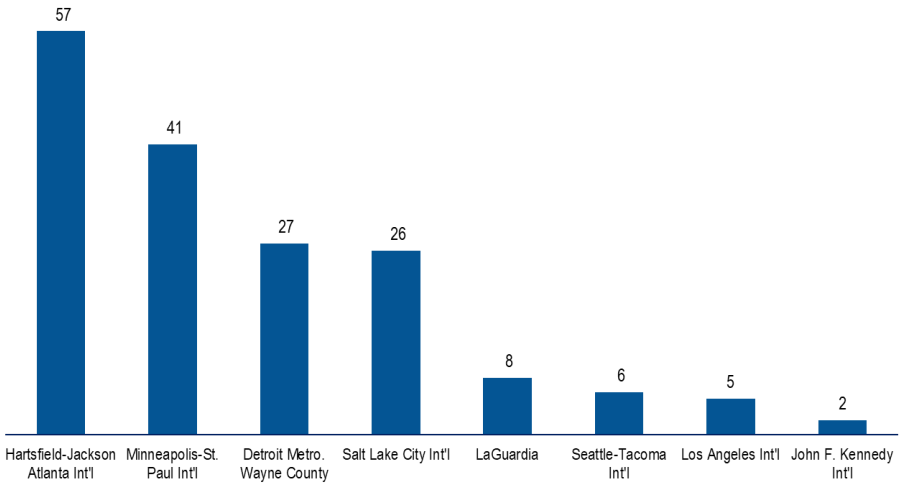
Figure 6-2: Delta Air Lines' Annual Small Regional Jet Departures at Its Hubs in 2019



Source: Airline Data, Inc., Airline schedule data

In addition to having the most departures by small regional jets, Delta Air Lines' Hartsfield-Jackson Atlanta International Airport hub connects with more nonhub airports than any other connecting hub in the airline's network. Delta Air Lines serves 57 nonhubs from Hartsfield-Jackson Atlanta International Airport, compared to 41 nonhubs served from Minneapolis-St. Paul International Airport and 27 and 26 nonhubs served from Detroit Metropolitan Wayne County Airport and Salt Lake City International Airport respectively (**Figure 6-3).** The number of nonhub airports served is associated with use of the small regional jets. If Delta Air Lines continues to eliminate this aircraft from its fleet, then frequency of service to nonhub airports, such as those in Georgia, could be impacted.

Figure 6-3: Number of Nonhub Airports Served from Each of Delta Air Lines' Eight Hubs



Source: Airline Data, Inc., Airline schedule data

Columbus Airport, Valdosta Regional Airport, Southwest Georgia Regional Airport, and Brunswick Golden Isles Airport received 100 percent of their service on small regional jets during the study period. Each of these airports only received service an average of three times per day. These airports are four of the five smallest nonhub markets that Delta Air Lines serves from Hartsfield-Jackson Atlanta International Airport in terms of enplanements (**Table 6-1**). Between their relatively high fares and limited service, Georgia's nonhub markets are challenged to stem passenger leakage.

Table 6-1: The 57 Nonhub Airports Served at Hartsfield-Jackson Atlanta International Airport – Ranked by Enplanements

Rank	Airport/City Name	Total Enplanements YE 2019	Rank	Airport/City Name	Total Enplanements YE 2019	Rank	Airport/City Name	Total Enplanements YE 2019
1	St. Thomas Island	535,553	**20**	Green Bay	322,931	**39**	Rochester, MN	187,485
2	Key West	473,772	**21**	Rapid City	317,121	**40**	Montgomery	186,523
3	Fargo	447,269	**22**	Augusta, GA	316,310	**41**	Vail	178,311
4	Missoula	446,288	**23**	Mobile	312,061	**42**	Lincoln	159,265
5	Akron	429,646	**24**	Kalispell	311,020	**43**	Jacksonville, NC	155,673
6	Jackson, WY	407,541	**25**	Shreveport	310,114	**44**	Elmira/Corning	150,219
7	Tallahassee	400,963	**26**	Aspen	293,085	**45**	Montrose	144,770
8	South Bend	399,828	**27**	Wilkes-Barre	282,566	**46**	Alexandria, LA	124,781
9	Allentown	399,565	**28**	Traverse City	252,824	**47**	New Bern	113,536
10	Baton Rouge	391,333	**29**	Gainesville	250,934	**48**	Monroe	111,663
11	Fort Wayne	382,405	**30**	Melbourne, FL	248,168	**49**	Hayden	105,221
12	Appleton	372,463	**31**	Lafayette	242,191	**50**	Fort Smith	88,568

Rank	Airport/City Name	Total Enplanements YE 2019	Rank	Airport/City Name	Total Enplanements YE 2019	Rank	Airport/City Name	Total Enplanements YE 2019
13	Charlottesville	368,184	32	Evansville	236,263	51	Hilton Head Island	58,254
14	Daytona Beach	365,326	33	Fayetteville, NC	233,189	52	Dothan	56,493
15	Gulfport/Biloxi	361,965	34	St. Croix Island	224,347	53	Columbus, GA	50,832
16	Moline	358,697	35	Charleston, WV	221,841	54	Columbus, MS	46,894
17	Roanoke	344,143	36	Tri-Cities	208,001	55	Valdosta, GA	44,216
18	Peoria	335,233	37	Newport News	196,834	56	Albany, GA	40,721
19	Flint	325,088	38	Bloomington	193,637	57	Brunswick, GA	40,013

Source: Airline Data, Inc., Airline schedule data; USDOT T-100 database.

6.5 Fare Desirability

Among the 57 nonhub airports served by Delta Air Lines from Hartsfield-Jackson Atlanta International Airport, only four have higher average one-way fares than four of the five Georgia nonhub airports highlighted in **Table 6-2**. Augusta Regional Airport, however, has average one-way fares that are significantly lower than those available at the other nonhub airports in the state. This finding helps to establish the link between the number of seats provided and competition from other airlines (in the case of Augusta Regional Airport, American Airlines) to lower fares.

The ability of a nonhub airport to make the case to an airline to implement additional service is crucial to maintaining customers and attracting new ones. Increased competition at an airport can attract travelers by offering more choices in terms of destinations, convenience, and lower fares.

Table 6-2: The 57 Nonhub Airports Served by Delta Air Lines – Ranked by Average One-Way Fare

Rank	Airport Code	Airport City	Adjusted Average Fare YE1Q19	Rank	Airport Code	Airport City	Adjusted Average Fare YE1Q19	Rank	Airport Code	Airport City	Adjusted Average Fare YE1Q19
1	DHN	Dothan	$285	21	SHV	Shreveport	$231	41	FCA	Kalispell	$192
2	EGE	Vail	$279	22	HDN	Hayden	$230	42	RST	Rochester, MN	$190
3	ASE	Aspen	$276	23	GRB	Green Bay	$230	43	ATW	Appleton	$188
4	GTR	Columbus, MS	$275	24	LFT	Lafayette	$226	44	MLB	Melbourne, FL	$182
5	CSG	Columbus, GA	$266	25	TRI	Tri-Cities	$225	45	DAB	Daytona Beach	$182
6	ABY	Albany, GA	$263	26	LNK	Lincoln	$220	46	SBN	South Bend	$181
7	VLD	Valdosta	$262	27	ROA	Roanoke	$218	47	STT	St. Thomas Island	$181
8	BQK	Brunswick	$253	28	EVV	Evansville	$212	48	MLI	Moline	$179

Rank	Airport Code	Airport City	Adjusted Average Fare YE1Q19	Rank	Airport Code	Airport City	Adjusted Average Fare YE1Q19	Rank	Airport Code	Airport City	Adjusted Average Fare YE1Q19
9	AEX	Alexandria, LA	$251	**29**	RAP	Rapid City	$211	**49**	STX	St. Croix Island	$179
10	MGM	Mont-gomery	$248	**30**	GNV	Gainesville	$210	**50**	AVP	Wilkes-Barre	$178
11	JAC	Jackson, WY	$246	**31**	GPT	Gulfport/ Biloxi	$209	**51**	ELM	Elmira/Corning	$172
12	FSM	Fort Smith	$246	**32**	AGS	Augusta, GA	$208	**52**	CAK	Akron	$172
13	MLU	Monroe	$240	**33**	HHH	Hilton Head Island	$208	**53**	MSO	Missoula	$171
14	TLH	Tallahassee	$240	**34**	FAY	Fayetteville NC	$207	**54**	BMI	Bloomington	$164
15	MTJ	Montrose	$239	**35**	PHF	Newport News	$201	**55**	PIA	Peoria	$158
16	CRW	Charleston, WV	$236	**36**	EWN	New Bern	$195	**56**	ABE	Allentown	$152
17	EYW	Key West	$236	**37**	FAR	Fargo	$195	**57**	FNT	Flint	$152
18	TVC	Traverse City	$235	**38**	FWA	Fort Wayne	$195				
19	BTR	Baton Rouge	$234	**39**	CHO	Charlottes-ville	$194				
20	MOB	Mobile	$232	**40**	OAJ	Jacksonville NC	$194				

Source: Airline Data, Inc., Airline schedule data; USDOT T-100 database.

6.6 Loss of Passengers to Competing Airports

As noted in **Section 3**, service and price are two significant economic factors which impact a consumers' choice of air travel. In many instances, larger airports are able to attract passengers from other airports' catchment areas.

This study has quantified the significant number of passengers who choose an alternative airport to begin their journey rather than use the local nonhub airport. Hartsfield-Jackson Atlanta International Airport remains a formidable competitor to nonhub airports in the state, each of which lose a significant number of passengers to this "mega-hub."

Cases of fragmentation of the local passenger base were also identified during the study. For example, there are a large number of passengers from the northeast (especially New York) who travel to the Savannah-Brunswick region for leisure purposes. However, the analysis demonstrates that most of those passengers are using Savannah/Hilton Head International Airport and Jacksonville International Airport in Florida to access the region instead of the local airport, Brunswick Golden Isles.

The pull of potential Georgia passengers to Florida's commercial service airports (Jacksonville International Airport, Tallahassee International Airport, Orlando International Airport, and Tampa International Airport) is another significant data point identified during this study. In fact, the study found that passengers within the catchment areas of southern Georgia airports drive as far as Orlando International Airport to begin their journey. Given the presence of LCCs throughout Florida, price is likely the factor that is attracting Georgia's nonhub passengers to Florida airports that offer lower fares.

Among the five nonhub commercial airports in Georgia, only one, Augusta Regional Airport, has service from more than one carrier, allowing it to offer lower average fares than the four nonhub airports that are only served by one carrier.

While Georgia's nonhub airports perform competitively with their peers in other economic and demographic indicators, their catchment areas all tend to have a lower per capita income, which can translate to fewer discretionary dollars to spend on air travel. This is a likely explanation for the loss of potential passenger traffic to larger airports in Georgia and Florida.

To maintain their existing service and to attract new service, Georgia's nonhub airports must convince their communities of the importance of local air service, implementing "Fly Local" campaigns and other informational strategies to encourage the community to use the existing air service, or risk losing it.

7. Efforts to Promote Air Service

7.1 Federal, State, and Local Air Service Programs

Before discussing statewide air service development programs, it is appropriate to first provide an overview of the federal programs that are available to airports as they relate to commercial air service. These include the United States Department of Transportation (USDOT) Essential Air Service (EAS) program and Small Community Air Service Development Program (SCASDP). Some airports also have locally funded air service incentive programs that are based on the policies outlined in Federal Aviation Administration (FAA) guidance on air carrier incentive programs.

7.1.1 Essential Air Service (EAS) Program

The United States (U.S.) Congress established the EAS program as part of the 1978 deregulation of the U.S. commercial airline industry. Through the EAS, the USDOT provides subsidies to airlines to make commercial air service available to communities that airlines would not otherwise serve. Statutory changes since 2010 have reduced the number of communities eligible for subsidized service through the EAS. No new communities may enter the EAS program should they lose their unsubsidized service. Per 49 U.S. Code 41731, a community receiving an EAS subsidy will remain eligible if:

- It is located more than 70 miles from the nearest large or medium hub airport;
- It requires a rate of subsidy per passenger of $200 or less, unless the community is more than 210 miles from the nearest large or medium hub airport;
- The average rate of subsidy per passenger was less than $1,000 during the most recent fiscal year at the end of each EAS contract, regardless of the distance from a hub airport; and
- It had an average of 10 or more enplanements per service day during the most recent fiscal year, unless it is more than 175 driving miles from the nearest large or medium hub airport, or unless the USDOT is satisfied that any decline below 10 enplanements is temporary.

USDOT issues requests for proposals to all scheduled carriers to provide service to an eligible community and uses the following criteria by law when selecting a carrier to provide subsidized service to EAS communities:

- Service reliability;
- Contractual and marketing arrangements with a larger carrier at a hub airport;
- Interline arrangements with a larger carrier at the hub; and
- Community views.

Middle Georgia Regional Airport (MCN) in Macon is the only Georgia airport eligible to receive EAS funding. Macon currently has subsidized service to Baltimore-Washington Thurgood Marshall International Airport (BWI) provided by Contour Airlines. Macon is 79 miles from Hartsfield-Jackson Atlanta International Airport (ATL), a large hub. The USDOT reports that Macon received $4,775,918, or $184 per passenger, in subsidies in fiscal year 2018. Macon participates in the EAS under the Alternate EAS program wherein grant funds are issued directly to the airport owner instead of the air carrier. This allows the community to recruit air service that would not otherwise meet the EAS guidelines, such as more frequent service with smaller aircraft, less than daily service, or flights to differing destinations at different times of the year or week.

Athens-Ben Epps Airport (AHN) in Athens, Georgia had EAS service but lost it in 2014 because the average passenger level declined below the EAS minimum requirement of 10 passengers per service day.

U.S. airports that received EAS funding as of 2018 are shown in **Figure 7-1.**

Figure 7-1: Airports Receiving Essential Air Service Funding as of 2018

Source: GAO presentation of Department of Transportation data and Mapinfo (map). | GAO-20-74

7.1.2 Small Community Air Service Development Program (SCASDP)

The U.S. Congress established the SCASDP in 2000 to help small communities attract and retain commercial service. As authorized by 49 U.S. Code 41743, the USDOT may award grants to communities that seek to assist:

- An air carrier to subsidize service to and from an underserved airport for a period not to exceed three years;
- An underserved airport to obtain service to and from the underserved airport; or
- An underserved airport to implement measures to improve air service both in terms of the cost to consumers and the availability of service, including improving air service through marketing and promotion of air service and enhanced utilization of airport facilities.

The EAS and SCASDP programs are separate and unique. EAS is a direct subsidy to air carriers; it limits eligibility based on a community's air service prior to 1978 and on its proximity to larger commercial service airports. SCASDP eligibility criteria is broader and provides a grant applicant the opportunity to self-identify its air service deficiencies and propose an appropriate solution.

USDOT issues an annual call for SCASDP applications. When selecting applicants to participate in the program, USDOT is statutorily required to apply the following criteria for participation:

- The airport serving the community is not larger than a small hub;
- The airport has insufficient air carrier service or unreasonably high airfares;
- The airport presents characteristics, such as geographic diversity or unique circumstances, that demonstrate the need for, and feasibility of, the program;
- An applicant may not receive an additional grant to support the same project more than once in a 10-year period; and
- An applicant may not receive an additional grant prior to the completion of its previous grant.

SCASDP grants may include revenue guarantees/subsidies, financial assistance for marketing programs, airline start-up costs, and studies. The grants have different goals and the extent to which they have been successful has varied. Subsidies funded through SCASDP are time-limited, typically three years. Grants have helped airports promote air service and to attract a specific air carrier to serve a specific route.

SCASDP grants for Georgia airports are outlined in **Table 7-1**.

Table 7-1: Georgia – Small Community Air Service Development Program (SCASDP) Grants

Airport Location	Year	Amount	Description/*Goal*	Met Goal
Athens	2018*	$750,000	Revenue guarantee; marketing *New service to Charlotte (American Airlines)*	Uncertain; recent grant
Augusta	2017	$800,000	Revenue guarantee; marketing *New service to Washington, D.C. (American Airlines)*	Yes
Columbus	2014	$750,000	Revenue guarantee; marketing; start-up costs offsets *Second carrier and service to Charlotte or Washington, D.C.*	No
Savannah	2013	$500,000	Marketing support; ground handling costs *Low-fare carrier service to Boston (JetBlue)*	Yes
Brunswick	2006	$500,000	Assistance for a second destination *Service to a second destination*	No
Macon	2005	$507,691	Assistance for service to Atlanta *Service to Atlanta*	Yes (until 2014)
Albany	2004	$500,000	Assistance for a second carrier *A second carrier*	No
Savannah	2003	$523,495	Marketing; promote Hilton Head Island; stimulate more demand *Increased passenger usage*	Yes

Airport Location	Year	Amount	Description/*Goal*	Met Goal
Augusta	2002	$759,004	Marketing of new routes; promotion of services *New services*	No

**Announced by USDOT February 2020*
Source: USDOT Small Community Air Service Development Program

7.2 Airport Air Carrier Incentive Programs

The FAA provides guidance for airport-specific air carrier incentive programs in its 2010 publication, *Air Carrier Program Guidebook: A Reference for Airport Sponsors*. This is FAA's guidance to airport sponsors interested in offering promotional incentives to attract air carrier service at federally obligated airports. The guidance focuses on how airports need to comply with federal grant assurances and how they may or may not use airport revenues to support air service initiatives. Typical airline incentives employed by airports include marketing, fee waivers, and facility improvements. Airports may not use airport funds to issue revenue guarantees to an airline; however, revenue guarantees may be funded by local businesses, universities, and economic development agencies, or by grants through the SCASDP.

Hartsfield-Jackson Atlanta International Airport has an Air Service Incentive Program. The airport has offered incentives that waived parking and landing fees and provided marketing benefits to airlines that introduced cargo and passenger service to new international destinations.

7.3 State Survey and Review of Other State Programs

7.3.1 Survey of Statewide Programs

To help determine the extent and nature of statewide air service programs, a survey was sent through the National Association of State Aviation Officials (NASAO) to the Office of Aviation in each state. Of the 50 states contacted, 39 responded in writing and 11 responded verbally. The questions and collective responses follow:

1. *Does your state currently have a state-supported/administered air service program (i.e., subsidy program, grant program, marketing program, etc.)?*

Fourteen states indicate they have an air service development program. Of these 14, nine are statewide programs that include several commercial service airports. These nine states are:

- Iowa
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- New Mexico
- Virginia
- Wyoming

Two other states focus only on one airport: Maryland – Baltimore-Washington International Thurgood Marshall Airport and Rhode Island – Theodore Francis (T.F.) Green Memorial State Airport (PVD). The other three state programs are:

- Indiana - focuses on international routes
- Ohio - recently authorized and has no established guidelines
- Nevada - recently authorized but had not been provided funding at the time of the survey

Each of these state programs is summarized in **Table 7-2** and **Table 7-3** and will be reviewed in detail later in this section.

2. *If yes, what is the annual level of funding currently available to support air service initiatives or development?* (See **Table 7-2** for reported responses.)

3. *What is the source of funding for your state's air service program?* (See **Table 7-2** for reported responses.)

For those states with active air service development programs, the average program funding for eligible airports, excluding airline minimum revenue guarantees/operating subsidies, is $44,000. This average represents program features such as marketing, advertising, air service consulting, and public awareness activities.

Table 7-2: State Air Service Development Programs – Funding

State	Annual Amount	Funding Source	Agency	Remarks
Indiana (IN)	Varies	Toll Road Fees	Indiana Economic Development Corporation	International
Iowa (IA)	$480,000	State Aviation Fund	Office of Aviation	-
Maryland (MD)	Varies	Transportation Trust Fund	Maryland Aviation Administration-	Airport-specific
Michigan (MI)	$250,000	Transportation Trust Fund	Office of Aeronautics	-
Minnesota (MN)	$300,000	State Airport Fund	Department of Aviation	-
Mississippi (MS)	Varies	Air Service Development Fund	Development Authority	-
Missouri (MO)	$500,000 to $2 million	Aviation Trust Fund	Department of Transportation, Aviation Section	-
Montana (MT)	$100,000	Tourism Taxes	Department of Commerce	-
Nevada (NV)	To Be Determined	Air Service Development Fund	Air Service Development Commission	-
New Mexico (NM)	$1 million	State General Fund	Aviation Division	-
Ohio (OH)	$4 million	Liquor Taxes	JobsOhio	-
Rhode Island (RI)	$3.375 million	Air Service Development Fund	Rhode Island Commerce Corporation	Airport-specific
Virginia (VA)	$375,000	Aviation Special Fund	Department of Aviation	-
Wyoming (WY)	$3.5 million annual/ $15 million one-time	Federal Mineral Royalties/ Legislative Stabilization Reserve Account	Department of Transportation	Capacity Purchase

Source: Georgia Statewide Air Service Study Survey, Georgia Department of Transportation

4. *Please check all activities that are currently eligible for funding as part of your state's program.* (See **Table 7-3** for reported responses.)

Table 7-3: State Air Service Development Programs – Activities

Activity	IN	IA	MD	MI	MN	MS	MO	MT	NV	NM	OH	RI	VA	WY
Marketing (11)		✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓
Rate Abatement/Reduction (3)			✓			✓								✓
Minimum Revenue Guarantee/Operating Subsidy (3)	✓			✓										✓
Advertising (8)		✓	✓	✓	✓	✓	✓						✓	✓
Ticket Purchase (0)														
Ground Handling (3)		✓		✓										✓
Ground Equipment (4)		✓		✓	✓									✓
Infrastructure (1)				✓										
Other (5)	✓[1]	✓[2]		✓[3]					✓[4]		✓[4]			

[1]Incentives for number of passengers
[2]Studies, presentations, data
[3]Aircraft Rescue and Firefighting (ARFF) training
[4]Activities and guidelines to be determined
Source: Georgia Statewide Air Service Study Survey, Georgia Department of Transportation

5. *If your state does not have a current air service development/enhancement program, have you had one in the past? If yes, when did this program expire? What was the primary reason this program ended?*

The following states indicated they had a program in the past but do not currently have an active statewide air service development program:

- **Illinois** had an air service development program in the past, but the authorization ended in 2018 when state legislation eliminated several unused statewide programs. The state legislature created an I-FLY program in 2006 to promote air service in the state. The specific purpose of the program was for air carrier recruitment, air carrier retention, and planning grants for commercial service airports outside of Cook County. Funding was to be appropriated directly through the General Assembly, decisions made by a created Air Service Commission, and funds administered by the Illinois DOT. Funds have only been appropriated one time, in 2007, when I-FLY funds were used to subsidize Mesa Airlines to fly a Beechcraft 1900 (19-seater) from Marion, Quincy, and Decatur to Chicago Midway International Airport (MDW). The cost of flights was still too high for passengers and demand to fly locally was low. Therefore, the subsidies ended after only nine months. The program is no longer authorized.
- **Kansas** began the Kansas Affordable Airfares Program in 2001 with the purpose of enticing a low fare airline; the program provided a revenue guarantee to AirTran Airways (later Southwest Airlines). The focus was to reduce air fares and increase air service in Wichita. This program was managed by the Regional Economic Area Partnership which is a consortium of city and county governments in south central Kansas. Airfares dropped and enplanements increased. The program's eligibility briefly expanded to other airports but was not used. The program ended in 2015 because the benefits of continued state funding (approximately $5 million annual) were not apparent based on an independent review prepared for the Kansas Department of Commerce.
- **Maryland** had an in-state route incentive program which ended in 2002 due to a lack of passengers for specific routes. The state of Maryland, as the airport owner, currently provides incentives for new routes at Baltimore-Washington International Thurgood Marshall Airport.
- **Oklahoma** had an air service program in the early 2000s, but it ended because the available funds were not used.

- **South Carolina** had several previous state air service incentive programs. In approximately 1977, the state used funds to support a carrier that would provide only in-state air service. This service failed. In the late 1980s, the state Department of Commerce secured $50 million for a grant to a carrier that would start an airline connecting hub in Columbia. This was in response to hubs in Georgia and North Carolina, and South Carolina was trying to keep pace. The state issued a request for proposals for the service, but there were no responders. In 1994, the state's Department of Commerce, with backing from several private investors, secured $25 million to fund a Low Cost Carrier (Air South) that would be based at Columbia from 1994 to 1997. When funding ran out after three years, the airline went bankrupt and ceased operations.
- **South Dakota** subsidized an in-state airline from October 1990 to February 1991. The airline was discontinued because revenues did not cover the subsidized expenses.

7.3.2 Current Statewide Air Service Development Programs

Nine states have active, statewide air service development programs that include several commercial service airports in each state. This section summarizes these programs.

Iowa

Since 2009, the Iowa Air Service Development Program has helped commercial service airports maintain and enhance passenger air service. Targeted funding is used to promote air service based on the needs and circumstances of an airport's service and market.

The Iowa Transportation Commission approves project selection and the Iowa Department of Transportation, Office of Aviation, administers the program. The current annual funding is $480,000. These funds come from the State Aviation Fund, specifically revenues from aviation fuel taxes and aircraft registration fees.

Grants under Iowa's program are intended to sustain or improve service through marketing and education programs. Eligible airports can apply annually, and the maximum grant is $48,000 for airports with less than 250,000 annual enplaned passengers and $80,000 for those airports with over 250,000 enplanements. The local matching share is 20 percent.

Grants may include marketing, advertising, ground handling, ground equipment, studies, data collection, and the development of presentations to airlines. Marketing and advertising include activities such as radio, television, newspaper and movie ads, billboards, and social media. Iowa does not subsidize actual air service, nor is the annual program amount enough to do so.

Iowa does not have a direct way to measure the success of its Air Service Development Program; however, the Office of Aviation leadership indicates that the airport directors in the state value the program and enplanements have increased. One airport's passengers have increased to the point that the airport is no longer using EAS (Sioux City).

Michigan

The Michigan Air Service Program is one of the longest standing of such programs in the nation. The program was developed in 1987 to address the loss and decline of commercial service in Michigan communities. The program's current objectives are to:

- Assure the appropriate distribution of air service to support and promote economic development statewide

- Assure the appropriate distribution of air service to support the quality of life for Michigan residents and visitors by providing access to the national air transportation system
- Match a community's air service to the level which it can profitably support

The Michigan Department of Transportation, Office of Aeronautics, administers the program. This program receives an annual appropriation of $250,000 through the state's aviation fuel tax collection. The state funding share varies from 50 to 90 percent, depending upon the type of project and size of airport.

The program currently includes funding for airport-specific projects across four categories:

- **Air Carrier Recruitment and Retention:** The purpose of this category is to help establish, maintain, or increase air service levels at Michigan airports that meet the eligibility requirements. Funding is available for feasibility studies, the recruitment of a new carrier or expansion of existing service, and for other incentives to recruit or preserve services. These objectives may be achieved through strategies such as waiver of landing fees, provision of baggage handling equipment or other equipment, and support for operational needs of the airport. Projects under this category are not intended to provide long term continuing funding assistance to support actual airline service. To be eligible, airports must be in danger of losing service, be outside a service area of an existing air carrier airport, and have a tourism attraction, manufacturing plant, or business community within 20 miles. Non-air carrier airports with passenger potential for profitable service must have a commitment from a certificated air carrier to start service using a nine-passenger aircraft or larger to qualify for funding.
- **Aircraft Rescue and Firefighting Training:** The purpose of this category is to address the annual need for Part 139 certificated airports to provide training for aircraft rescue personnel. Each of the 18 certificated airports in the state receives $2,000 for training.
- **Airport Awareness:** The purpose of this category is to increase public awareness of community airports and available air passenger and air cargo services. The program focus involves increased concentration on educational activities and media relations. Grants are limited to $10,000.
- **Capital Improvement and Equipment:** The purpose of this category is to improve airport facilities for passenger acceptance, cargo handling, and airport operations to support air service and economic development. This program category allows Michigan airports another funding mechanism for projects currently not eligible under existing federal and state improvement programs.

Michigan does not have a direct way to measure the success of its Air Service Development Program; however, the Office of Aeronautics leadership indicates that the airport directors in the state value the program and that the general public is much more aware of air service opportunities in their communities. Nine of Michigan's 18 commercial service airports also receive EAS subsidies.

The Michigan Air Service Program Guidelines are available on the state's Office of Aeronautics website.

Minnesota

The state of Minnesota has had an airline marketing program since 1997 with a funding authority that has varied over the years. Funding has generally been biennial. In 2019, the state legislature approved the Air Service Marketing Program with a total of $300,000 for grants. The purpose of the program is to encourage the preservation and expansion of scheduled passenger air carrier service to airports in Minnesota.

The Commissioner of Transportation may make payments under a project agreement only to reimburse local costs already incurred. The Commissioner may also develop a statewide marketing program to increase the

visibility of and ridership at airports with scheduled air carrier service. The Minnesota Department of Transportation, Office of Aeronautics, manages the program. Grants are distributed by formula to eight commercial service airports, other than Minneapolis St. Paul International Airport, based on enplanements, and the annual grants range from $17,000 to $82,000.

Eligible expenses for reimbursement include:

- Air service advertising
- Public relations campaigns to inform the public of the value of an airport and its airline service
- Marketing studies
- Service improvement activities
- Route analysis

Expenses not eligible for reimbursement include:

- Promotion of an airport in the service area of another airport
- Promotions featuring a specific airline over another
- Payments to airlines as subsidies

The Minnesota Office of Aeronautics leadership advises they have no direct way to measure the success of their program, but several communities have ongoing robust advertisement programs, and airport directors indicate the program is helpful by making local citizens aware of the air service available to their community.

Mississippi

In 2014, the Mississippi Air Service Program Act created the Mississippi Air Service Development Fund. The fund's purpose is to provide grants to commercial service airports to help achieve the following goals:

- Adding air service to a new destination
- Adding frequencies to current services (more flights for existing routes)
- Lowering fares/introducing new competitive service
- Increasing the size of aircraft serving a community
- Adding a new FAA Part 121 commercial air carrier

The program is administered by the Mississippi Development Authority. Eligible projects include marketing and advertising of new service and routes, increased frequency of current service, and other risk abatement grants. These risk abatement grants are made directly to air carriers and include revenue guarantees, seat guarantees, or seat cost mitigation. The use of grant funds to purchase airline passenger seat capacity is prohibited.

Airline grant recipients are limited to scheduled air carriers that hold an FAA Part 121 Certificate and that provide scheduled air service at Mississippi airports that maintain an FAA Part 139 Certification. An airport grant recipient shall only utilize grant funds in accordance with FAA regulations.

The amount of a grant is based on a formula of $10.00 per seat per day calculation, not to exceed an annual total of $500,000 per grant, per FAA Part 139 certificated airport. The combination of grants to airlines or airports cannot exceed a total of $500,000 per year, per airport. The only grants issued to airlines to-date have been for revenue guarantees to Allegiant Air for service to Gulfport-Biloxi International Airport. Routes included service to Orlando Sanford International Airport and Nashville International Airport.

Grants for marketing and advertising are issued to any commercial service airport. Grants range from $30,000 to $100,000 and are based on the size of airport. Grants are funded at 60 percent by the state, requiring a 40 percent local match.

The Mississippi Development Authority leadership indicates they have no direct way to measure the success of marketing and advertising, but enplanements have generally increased, and airport directors believe the program successfully promotes local air service.

Missouri

The Missouri 2016 statutes provided for funding from the State Aviation Trust Fund for the following purposes:

- The study or promotion of expanded domestic or international scheduled commercial service
- The study or promotion of intrastate scheduled commercial service
- The promotion of aviation in the state
- Assistance to airport sponsors participating in a federally funded air service program, supporting intrastate scheduled commercial service

The Missouri funding varies from $500,000 to $2.0 million, depending upon the total amount of deposits into the State Aviation Trust Fund. The funding is administered by the Missouri DOT, Aviation Section. As indicated previously, funds are used primarily for marketing and advertising. The smaller airports receive grants as low as $25,000. The larger airports may use funds for air service consulting. All nine Missouri commercial service airports are eligible to receive grants. The state share is 90 percent, and a 10 percent local match is required.

Missouri's DOT leadership indicates they have no direct way to measure the success of marketing and advertising, but enplanements are generally increasing, and airport directors believe the program successfully promotes local air service. The annual request for grants for promotion funds exceeds funding that is available.

Montana

The Montana Department of Commerce is authorized to use up to $100,000 in tax funds for commercial service airports for the promotion of new flights in the state. This was approved as a pilot program in 2003 and implementation has been minimal. The Office of Tourism and Business Development administers these funds. Only two grants have been issued: Glacier County Cut Bank Airport in 2004 for $30,000 to conduct an air service feasibility study, and Missoula Airport in 2009 for $25,000 for a marketing plan. Funding is derived from 'bed taxes' imposed on hotel stays. Montana has not measured the success of marketing and advertising and their program has minimal use.

New Mexico

Since 1999, New Mexico has offered various air service assistance programs designed to provide new and/or improved regional air service between small communities and hub airports in the southwest U.S. The current program is the New Mexico Air Service Assistance Program. It began in 2017 and is funded at $1 million per year with revenues from the state's General Fund. The state legislature recently extended the program through 2031.

The Aviation Division of the New Mexico Department of Transportation administers the program and may issue grants to eligible recipients to market and promote the services of an airline to provide a minimum level of service. Grants are for marketing at 50 percent state share. The maximum amount of a grant to a recipient is $200,000 per year, and the grant award requires at least a fifty percent local match. All commercial service airports, other than Albuquerque International Sunport, are eligible to receive marketing grants.

The New Mexico Aviation Division leadership indicates they have no direct way to measure the success of marketing and advertising, but enplanements have generally increased, and airport directors believe the program successfully promotes local air service.

Virginia

Since the 1980s, Virginia's Aviation and Airport Promotion Program has helped stimulate aeronautical activity and promote aviation across the state. This has been accomplished by raising awareness in the business and public sectors about the programs and services provided by airports and the economic benefits generated by Virginia airports. The program provides funding to airport sponsors for the promotion of commercial aviation services and general aviation activities. The Virginia Department of Aviation administers the program. This program is funded from the state's Aviation Special Fund and revenues are obtained from aircraft fuel taxes and aircraft sales and use tax. The current annual amount of the program is $375,000.

Eligible items for Virginia commercial service airports include air service studies, consulting services, airline visits and presentations, air service data subscriptions, market research services, and flight information display systems. Marketing for new or improved air service is eligible for the first calendar year of service. Cash incentives to airlines are not eligible.

Airport sponsors can apply for grants in the amount of $35,000 to promote airline service. Multiple grants can be awarded in a fiscal year, but only one grant can be open at a time. The sponsor must provide a local share/match, which is based on the size of the airport. The state share ranges from 50 percent to 67 percent.

In addition to the Virginia Aviation and Airport Promotion Program, the Commonwealth's Opportunity Fund (formerly named Governor's Opportunity Fund) has been used to attract airline service to Washington Dulles International Airport. In 2016, the Governor approved $50 million over two years to help the Metropolitan Washington Airports Authority reduce its Dulles International Airport operating costs, and thus enable the Authority to reduce airline fees and successfully negotiate a new agreement with United Airlines.

The Virginia Department of Aviation leadership indicates they have no direct way to measure the success of marketing and advertising, but enplanements are generally increasing, and airport directors believe the program successfully promotes local air service.

Wyoming

The Wyoming state legislature enacted the Wyoming Air Service Enhancement Program (ASEP) in 2004 to address commercial air service deficiencies, build stability throughout the state, and to mitigate the risk of airports losing federal EAS funding. All nine commercial service airports in Wyoming have participated in the state's ASEP. A primary objective of the program is to help communities maintain or grow air service. The Wyoming Department of Transportation (DOT) indicates the ASEP has provided a safety net to several communities that would have likely lost service in recent years.

The Wyoming Aeronautics Commission administers the ASEP through a specific account that is managed by the Wyoming DOT. Funding levels have varied over the years from $3 million initially, to $1.3 million per year. Due to the ability to carry over unobligated funds, and due to supplemental budget requests, Wyoming assisted five communities with $3.5 million in 2018. Funding comes from the general fund, specifically from mineral royalties.

The ASEP has funded several aspects of an airport's air service challenges, including marketing, rate abatement/reduction, minimum revenue guarantee/operating subsidies, advertising, ground handling costs, and ground equipment purchases. The subsidy and grant aspects of the program specific to airline minimum

revenue guarantees require a minimum of a 40 percent local match, depending on the type of service. Grants for marketing are at a 50 percent local match.

As part of the 2016 Wyoming State Aviation System Plan, the Wyoming DOT Aeronautics completed an economic impact study that estimated the economic benefit for each flight subsidized through the state's ASEP. The analysis measured the direct impact of each ASEP-supported flight based on two categories: (1) off-airport visitor spending, and (2) on-airport related activities, such as businesses and organizations engaged in day-to-day airport operations and projects.

In addition to measuring direct impacts of each flight, estimates were also made of the impacts within the economy. These included indirect impacts (e.g., business expenses such a payroll equipment) and induced impacts (e.g., employees spending earnings on goods and services in the local economy). Wyoming's economic impact study found that their ASEP program has had a strong positive impact on the economies of the regions surrounding participating airports. Specifically, the analysis found that the $21 million invested in the 60 ASEP grant programs evaluated over a 12-year period have:

- Produced over 307,000 incremental visitors (above what would otherwise have been without the service) to the state with a total incremental visitor spending of over $370 million;
- Supported over 6,300 jobs on and off airport with a total payroll of over $237 million;
- Driven incremental state tax revenues of over $30.8 million ($8 million more than the state invested in the ASEP); and
- Produced a total economic impact of over $523 million for an average return of $24 of economic benefit for every $1 invested.

In summary, the state of Wyoming finds that the ASEP has generated economic benefits by increasing the volumes of traffic carried by improving air service connectivity. The program has resulted in a net increase in tax revenue generated from visitor spending. The flights subsidized through the ASEP resulted in economic benefits significantly larger than the investment made by the state.

The Wyoming Aeronautics Commission is particularly concerned about less-than-ideal conditions in the state's aviation system, such as:

- Wyoming's ticket prices being some of the highest in the nation
- Wyoming commercial airport communities typically do not have much say in local fares, routes, or schedules
- A shortage of pilots

In addition to the ASEP, the Wyoming legislature approved a one-time $15 million appropriation in 2018 from the Legislative Stabilization Reserve Account to fund a Wyoming Commercial Air Service Improvement Account. This account enables the state to enter into a public/private partnership between the state and an independent airline to purchase air service capacity (departing seats) for participating communities. The Capacity Purchase Agreements help to establish reliable daily service from small communities to a major hub. In 2019, the state contracted with SkyWest Airlines to provide twice-daily service from four remote Wyoming communities to Denver.

Detailed information about the ASEP and Wyoming's plan to improve commercial air service is in the *Wyoming DOT's Commercial Air Service Improvement Plan*, published in July 2018.

7.3.3 Other State Air Service Development Programs

The statewide air service development programs reviewed in **Sections 7.3.1 and 7.3.2** focus on air service for several airports within each state. The following state-sponsored air service development programs either have a more targeted focus, were only recently passed, have not yet been funded, or have not yet established program guidelines.

Indiana

The Governor of Indiana may use the state's General Fund to provide incentives to airlines for nonstop international flights to and from Indiana. These funds are administered by the Indiana Economic Development Corporation and derive from fees charged to heavy vehicles on the Indiana Toll Road across the northern part of the state.

Indiana has provided incentives to airlines in two forms: revenue guarantees that help protect an airline against lower-than-expected demand for a new route and per-passenger incentives that an airline earns as it sells tickets for a given route.

The Indiana Economic Development Corporation (IEDC) approves the use of these funds, develops leads, and handles negotiations with airlines. The Indiana Department of Transportation manages the program and distributes funding once agreements are reached. In 2017, $5 million was appropriated to help establish a Delta Air Lines' Indianapolis-Paris route. Another $20 million was appropriated in 2019 to support more potential international flights.

In February 2020, the IEDC offered Corporate Flight Management, Inc., dba Contour Airlines up to $1.5 million in the form of a minimum revenue guarantee, meaning the company only earns the amount if it does not meet its minimum revenue targets for its domestic routes. Additionally, the IEDC offered the company up to $550,000 in conditional tax credits based on the company's job creation plans associated with its new base of airline operations in Indianapolis.

Maryland

Maryland's current air service development efforts focus on incentives for new routes at Baltimore-Washington International Thurgood Marshall Airport (BWI). The state of Maryland owns and operates BWI. Incentives include marketing, advertising, rate abatement or reduction, minimum revenue guarantees, or operating subsidies. Maryland offers new entrants to BWI support by temporarily waiving landing fees, reducing terminal lease rates, and helping with marketing. For small carriers, the state as the airport owner does all the marketing; for larger carriers, the state participates on a 50/50 basis.

Several years ago, Maryland had a program to help subsidize air service with grants paid directly to airlines to support air service from airports in the western part of the state to BWI. This effort ended in 2002 after three years because the market did not support the need for the service. Maryland leadership indicates that the program may have worked better if the funds had been provided to the airports and communities instead of the airlines. The local communities would then have had more incentive to promote local use of the air service.

Rhode Island

Rhode Island's Air Service Development Council was formed in 2016. It has the authority to enter into agreements with scheduled air carriers and/or cargo carriers to provide direct financial incentives, revenue guarantees, and/or other support to incentivize air service to Theodore Francis (T.F.) Green Memorial State Airport in Providence, owned by the state of Rhode Island.

No funds are in the current budget; however, $3.375 million was awarded in 2017 to promote 16 new routes flying out of T.F. Green Memorial State Airport. These funds were awarded to four airlines to advertise and promote 16 new domestic and international routes. These funds were not used as guarantees for airline revenues.

The Rhode Island Commerce Corporation administers all air service development funds. Carriers adding new service to domestic markets are eligible for up to $200,000 in marketing, and new service to international markets is eligible for up to $750,000 in marketing funds. Funding is provided through the Rhode Island Commerce Corporation.

Nevada

The Nevada state legislature passed a bill in 2019 that created the Nevada Air Service Development Commission and the Nevada Air Service Development Fund. According to the published legislation (Assembly Bill No. 242), the purpose is to develop a state program to "encourage air carriers to resume, retain, or enhance the provision of commercial air service to and from small hub airports, nonhub airports, and large hub airports that serve rural communities in this state." The Commission is to include the Executive Director of the Office of Economic Development and members of the Commission on Tourism of the Department of Tourism and Cultural Affairs.

The Commission is authorized to accept monetary gifts, grants, and donations from any source for deposit into the fund. The Commission is authorized to award grants from the fund to air carriers that will serve or enhance service to small airports, nonhub airports, or large hub airports in Nevada for the purpose of recruiting, retaining, stabilizing, and expanding regional air service in the state.

Proponents of this legislation indicate the genesis of the bill was an air service study and the desire for the reinstatement of Reno-Elko nonstop service.

No funds have been appropriated to the Nevada Air Service Development Fund, nor have any grants been issued to-date.

Ohio

JobsOhio is a private, nonprofit corporation designed to drive job creation and new capital investment in Ohio through business attraction, retention, and expansion efforts. In recognition of the link between economic development and air service, JobsOhio has set aside $4 million in 2020 to help Ohio's airports attract new flights to unserved or underserved markets, including potentially highly sought transatlantic service. Specific details and guidelines have not yet been developed for how this fund will be used, but recent news articles indicate that it may be used in the form of subsidies or revenue guarantees to airlines so they will not lose money on new routes.

7.3.4 Cargo Survey

The Georgia Department of Transportation's (GDOT's) survey of states included questions about state involvement in incentives for air cargo/freight facilities, funding for cargo/freight facilities, or state cargo/freight studies. Nine states responded affirmatively that they actively support air cargo in some manner (**Table 7-4**). In addition to these current programs, in South Carolina, United Parcel Service received state corporate tax breaks and 100 percent state general appropriations funding in 1997 to build a regional cargo apron and sorting complex. This facility is still in use, although daily cargo flights have reduced from 22 in the early years to approximately eight.

Table 7-4: State-Reported Air Cargo/Freight Activities

Activity	Alaska	Florida	Iowa	Maryland*	Michigan	Missouri	Nevada	North Carolina	Virginia
Provide Incentives		✓		✓	✓	✓		✓	✓
Fund Facilities		✓	✓	✓	✓		✓	✓	✓
Fund Studies	✓	✓		✓		✓	✓		✓

*Maryland activities focus on Baltimore-Washington International Thurgood Marshall Airport.
Source: Georgia Statewide Air Service Study Survey, Georgia Department of Transportation

7.3.5 Summary of State Survey Findings

As discussed previously, there are programs to help with the sustainment and development of air service at the federal and state level. Federal programs include:

- The EAS Program, implemented by USDOT, provides subsidies up to $200 per enplaned passenger to airlines to make commercial air service available to eligible communities that airlines would not otherwise serve. Eligibility is limited to airports that had service in 1978 at the time of airline deregulation, are located at least 70 miles from a large or medium hub airport and have a minimum level of 10 enplaned passengers during a service day. Middle Georgia Regional Airport in Macon is the only Georgia airport eligible to receive EAS funding. Macon currently has subsidized service to Baltimore-Washington Thurgood Marshall International Airport by Contour Airlines. Athens, Georgia had EAS service but lost it in 2014 because the average passenger level declined below the EAS required minimum of 10 passengers per service day.
- The SCASDP helps small communities address air service and airfare concerns. SCASDP grants may include revenue guarantees/subsidies, financial assistance for marketing programs, and airline start-up costs and studies. Georgia locations that have received SCASDP grants include Athens, Augusta, Columbus, Savannah, Brunswick, Macon, and Albany. These grants have had different specific goals, and the extent to which they were successful have varied. **Table 7-1** provides a summary of Georgia SCASDP grants.

A survey of all 50 states indicates that there are nine active state-sponsored air service development programs that address the needs of several commercial service airports in each state. Each of these programs is discussed above in this report. Activities supported through these programs can generally be grouped into the following areas:

- **Marketing/advertising**. This includes efforts to make the community aware of the availability of the local air service. This is often done through television, radio, social media, billboards, etc. This activity is the primary focus of state programs in Iowa, Michigan, Minnesota, Missouri, New Mexico, and Virginia. Individual state grants vary widely but most range from $25,000 for smaller commercial service airports to $100,000 for larger ones. Although there are no specific metrics to quantify the direct benefits of state funded marketing programs, several state directors indicate that airport leaders have stated that they very much appreciate the program and that it helps make their community better aware of local air service.
- **Revenue guarantees and subsidies**. This includes financial assistance to help guarantee a certain amount of revenue for an airline and specific routes. It also includes the direct purchase of airline service such as the state of Wyoming's Commercial Air Service Improvement Program that enable's the state to contract with one airline to purchase air service capacity (departing seats) for participating communities that would not otherwise be able to sustain service. There are no specific metrics for measuring the benefit of subsidies other than identifying the number of passengers that use the subsidized service and analyzing the economic impacts. Wyoming

concluded the economic impact of its program is an average of $24 for every dollar invested. Some state directors indicated that subsidies are temporary in nature (often three years) and that the underlying economic health of a community will determine whether airline service becomes more permanent.

- **Equipment/training**. This includes grants directly to airports for the purchase of equipment such as baggage handling equipment and training for airport staff for airport safety certification requirements. These grants are not widely made by states but particularly help small communities with their local airport operational costs. An example are the $2,000 grants for training in Michigan.

In addition to the statewide programs, three states have funded air service efforts focused on specific international routes (Indiana) or for air service development at airports owned by the state (Maryland and Rhode Island).

As indicated earlier in this report, most statewide programs, other than revenue guarantees/subsidies, are administrated by the state's Department of Aviation. State economic agencies or Departments of Commerce administer those programs with financial incentives such as revenue guarantees.

The statewide survey indicated a few states that have had statewide programs in the past (Illinois, Kansas, Maryland, Oklahoma, and South Dakota). These programs included direct subsidies to airlines and state-owned airlines. These programs were discontinued because the funds were not used, benefits were not apparent, or the actual use of the airline service was not enough to warrant the state funding.

Fund sources for statewide programs vary widely and include general funds, transportation/aviation trust funds, donations, toll revenues, and mineral royalties.

7.3.6 Conclusions from State Survey

Activities that states fund and promote to enhance air service development and observations from this review of state programs follow:

- **Several states support various forms of marketing and advertising**. Grants are often provided directly to airport sponsors. These grants are normally administered by state aviation organizations similar to airport development grants. This appears to be the most effective way to administer these types of grants. Although there is no specific metric for measuring their success, and there are many factors influencing an airport's passenger level, airport sponsors have indicated that these marketing/advertising grants directly help sustain and increase air service. Principles that govern these grants typically include: Grants should not result in promotion of one airport over another, and grants should not promote a specific airline. These grant amounts vary depending upon the airport activity. On average, they range from $25,000 to $100,000. State funding shares vary from 50 to 90 percent.
- **Some states help fund the marketing of specific routes for specific airlines, along with revenue guarantees and subsidies awarded directly to airlines**. This funding appears to be best administered by an organization other than the state office of aviation that is not subject to FAA airport revenue use policies, such as the state Department of Commerce, an economic development agency, or a non-profit organization. Some Departments of Commerce also help promote tourism through grants to communities (typically $25,000 to $50,000) which promote tourism and flights into the community.
- **A few state air service development programs provide financial assistance in the form of subsidies to help guarantee a certain amount of revenue for an airline and a specific route**. These

assistance programs appear to be best administered by an organization other than state office of aviation as indicated above. This type of financial assistance sometimes comes direct from a Governor's Office, targeting a specific airline and route. Revenue guarantees can range from one million to several million dollars and are time-limited, often for three years. Interviews with several state aviation leaders indicate that revenue guarantees are not always successful. They say for a service to be sustained over many years, there needs to be an underlying community demand for the service, a reasonable price structure, and a marketing program to promote the service. Subsidies can sometime kick-start a new service, but the service cannot always be sustained if underlying demand to support it does not exist.

- **A few states provide start-up assistance for an airline to include items such as equipment (baggage handling) or funding for airport staff training related to maintain a Part 139 certificate**. This funding is best administered by the state office of aviation as a grant direct to the airport. These grants are typically low in amount ($2,000).
- **Grants issued by state offices of aviation, such as for marketing, typically come from a state aviation or transportation trust fund**. Airline subsidies often come from a state general fund or specific tax revenues such as toll roads, hotel taxes, and mineral royalties and are legislated accounts.
- A unique program to ensure communities have air service when they could not sustain service on their own is **Wyoming's Capacity Purchase Agreements**, wherein the state contracts with an airline to provide service. Four Wyoming communities receive airline service with the assistance of this program.
- **In addition to statewide programs, there are other air service development programs not funded by the state but are managed directly by the airport sponsor through federal grants** (USDOT SCASDP). Airports can also adopt their own airport air service incentive program based on FAA guidelines.

8. Findings and Conclusions for Statewide Air Service Study

The information, findings and conclusions reported herein are based on conditions that existed prior to any temporary contraction in the airline industry resulting from the virus.

Several key findings and conclusions of this Statewide Air Service Study are provided herein. These are based on the various elements of this study, including:

- A Literature Review of similar research that was previously completed, relating to existing air service support and marketing programs nationwide
- An analysis of national Air Service Trends and Issues
- A statewide survey effort and summary of State Air Service Programs and Activities across the United States (U.S.)
- A review analysis of Georgia's Commercial Air Service system
- Benchmarking (Peer Comparison) analyses and Leakage, or "Market Potential," analyses for seven of Georgia's nonhub airports

8.1 Findings – General

Air service is an important driver of economic activity and jobs; and, in turn, a strong local economy can attract new or expanded air service to a community. Local economic growth and demand for air service are the factors most likely to influence airline decision-making. There is little connection between air service growth and

population growth; however, there is a stronger connection between air service growth and regional employment.

Strategies for air service development vary based on the strength of a community's economy, its air service profile, recent airline performance, and the level of community engagement. Strategies involve a high level of community involvement, marketing, generating local support, airline incentive programs, and reducing short-term risks and costs to the air carrier. When considering an air service development program, community leaders should clearly identify the goals of the program. Goals may include retaining existing service, adding service, increasing the frequency of flights, reducing fares, increasing competition, improving service reliability, and increasing aircraft size.

National trends and challenges over the past several years for nonhub airports have included: airline consolidations, airline fleet changes to larger aircraft, evolving airline business models to lower operating costs, and pilot shortages. These trends have made it difficult for many U.S. nonhub airports to maintain air service levels, but Georgia's nonhub airports have generally not been significantly adversely impacted.

8.2 Findings – Georgia Airports

The state of Georgia has an extensive commercial air service system that includes:

- **Hartsfield Jackson Atlanta International Airport (ATL)** – a large hub; home to Delta Air Lines; consistently ranked as the world's busiest airport based on enplaned passengers
- **Savannah/Hilton Head International Airport (SAV)** – a small hub; with significant service improvements over the past several years; passenger growth of 57 percent over the past five years; several airlines to several destinations
- **Augusta Regional Airport (AGS)** – a nonhub; 25 percent growth in passengers over the past five years; service by two airlines to multiple destinations; recent service added by American Airlines to Washington, D.C.
- **Brunswick Golden Isles Airport (BQK)** – a nonhub; direct service by Delta Air Lines to ATL; 25 percent growth in passengers in the past five years
- **Columbus Airport (CSG)** – a nonhub; daily service by Delta Air Lines to ATL; six percent growth in passengers in the past five years
- **Middle Georgia Regional Airport (MCN)** – a nonhub; small regional jet service by Contour Airlines to Baltimore-Washington International Thurgood Marshall Airport; receives Essential Air Service Program subsidies
- **Southwest Georgia Regional Airport (ABY)** – a nonhub; daily service by Delta Air Lines to ATL; 32 percent growth in passengers in the past five years
- **Valdosta Regional Airport (VLD)** – a nonhub; daily service by Delta Air Lines to ATL; 24 percent growth in passengers in the past five years

In addition to the above, Athens recently obtained a United States Department of Transportation (USDOT) Small Community Air Service Development Grant Program (SCASDP) grant to assist with efforts to regain commercial air service at Athens-Ben Epps Airport. As stated in the USDOT grant approval document, the community's goal is to obtain service by American Airlines to Charlotte, North Carolina.

Georgia's nonhub airports have grown in recent years in not only the number of passengers served but also in load factor and airline revenues. Georgia's nonhub airports exceed the U.S. nonhub average in Origin and Destination (O&D) passengers per outbound seat and in load factor, which reflects the strength of the local air service demand. This recent growth has contributed to Delta Air Lines' late 2019 (pre-COVID 19) announcement

to add another flight to ATL from Albany, Brunswick, Columbus, and Valdosta in 2020. The growth also contributed to American Airlines' addition of a flight from Augusta to Washington, D.C.

Four of Georgia's nonhub airports (Southwest Georgia Regional Airport, Brunswick Golden Isles Airport, Columbus Airport, and Valdosta Regional Airport) currently have service by only one airline to one destination (Delta Air Lines to ATL). Although this provides excellent connections to locations throughout the U.S., it does make these Georgia communities vulnerable to airline economic conditions.

A significant number of passengers choose an alternative airport to begin their journey rather than use the local nonhub airport. Hartsfield-Jackson Atlanta International Airport remains a formidable competitor to nonhub airports in the state, each of which lose a significant number of passengers to this large hub.

In addition to ATL, other large airports in the vicinity of Georgia's nonhub airports are capturing travelers from their catchment areas. For example, there are many passengers from the northeast (especially New York) who travel to the Brunswick region for leisure purposes. However, the analysis demonstrates that most of those passengers are using Savannah/Hilton Head International Airport and Jacksonville International Airport in Florida to access the region, instead of the local airport, Brunswick Golden Isles. Many Georgia passengers also use Florida's commercial service airports (Jacksonville International Airport, Orlando International Airport, and Tampa International Airport) as alternatives to their local airport. Given the presence of low-cost carriers throughout Florida, price is likely a factor that is attracting Georgia's nonhub passengers to Florida airports that offer lower fares.

Benchmarking studies for the Georgia nonhub commercial service airports compared the performance of each airport with selected nonhub airport peers around the nation that are similarly situated to a large hub airport. As noted in **Section 4.4**, while Georgia's nonhub airports perform competitively with their peers relative to economic and demographic indicators, their catchment areas tend to have a lower per capita income, which can translate to fewer discretionary dollars to spend on air travel. This may be one explanation for the loss of potential traffic to larger airports in Georgia and Florida with less expensive fares.

Georgia's nonhub airports collectively compare favorably with peer airports relative to performance indicators such as passenger load factor and revenue per outbound seat. This performance helped contribute to airline decisions (prior to COVID-19) to add additional daily flights to several Georgia airports. **Section 4** of this report provides specific benchmarking information for each Georgia nonhub airport.

All of Georgia's commercial service airports (other than ATL) have received USDOT SCASDP grants over the past 20 years with a goal to improve air service for their respective communities. Only Augusta Regional Airport and Savannah/Hilton Head International Airport have been successful with these grants. Middle Georgia Regional Airport receives federal subsidies from the Essential Air Service (EAS) Program and is the only Georgia airport that is eligible to do so. Athens-Ben Epps Airport had EAS service but lost it in 2014 because the average passenger level declined below the EAS minimum requirement of 10 passengers per service day.

8.3 Findings – Other States

A survey of all states and follow-up interviews with selected state aviation officials indicate that 14 states have some form of air service development program. The following nine states have statewide programs that help several commercial service airports within the state:

- Iowa
- Michigan
- Minnesota
- Mississippi

- Missouri
- Montana
- New Mexico
- Virginia
- Wyoming

Five other states (Indiana, Ohio, Nevada, Maryland and Rhode Island) have programs that either do not yet have established guidelines or focus on only the state's largest commercial service airport and on specific routes (e.g. international).

The goals of state programs include retaining and/or adding air service, increasing service frequency, reducing fares, increasing competition, and improving service reliability. State programs also recognize that quality air service is essential to promoting a community's economic expansion, and that a coordinated state and local effort to promote air service is needed.

Observations from the review of state programs include the following:

- Several states support various forms of marketing and advertising of air service for the state's airports. Grants are provided directly to airport sponsors and include funding for the development and execution of airport air service public awareness/marketing/advertising plans. Eligible costs include consultant services, data procurement, meetings with airlines, and direct advertising through various media such as local radio, television, billboards, pamphlets, etc. These grants are normally administered by state aviation organizations similar to airport development grants.
- Although there is no specific metric for measuring their success, and there are many factors influencing an airport's passenger level, airport sponsors have indicated that these marketing/advertising grants directly help sustain and increase air service. Principles that govern these grants typically include: Grants should not result in promotion of one airport over another, and grants should not promote a specific airline. These grant amounts vary depending upon the airport activity. Grants vary by state but range from $25,000 to $100,000 and average $44,000 per grant per year. State funding shares vary from 50 to 90 percent.
- Select state air service development programs provide financial assistance in the form of subsidies to market and help guarantee a certain amount of revenue for an airline and a specific route. This funding appears to be best administered by an organization other than the state office of aviation that is not subject to FAA airport revenue use policies, such as the state Department of Commerce, an economic development agency, or a non-profit organization. This type of financial assistance sometimes comes directly from a Governor's Office and targets a specific airline and route. Revenue guarantees can range from one million to several million dollars and are time-limited, often for three years. Interviews with several state aviation leaders indicate that revenue guarantees are not always successful. They say for a service to be sustained over many years, there needs to be an underlying community demand for the service, a reasonable price structure, and a marketing program to promote the service. Subsidies can sometimes kick-start a new service, but the service cannot always be sustained if underlying demand to support it does not exist.
- A unique program to ensure communities have air service when they cannot sustain service on their own is Wyoming's Capacity Purchase Agreements, wherein the state contracts with an airline to provide service to each community. Four Wyoming communities receive airline service with the assistance of this program.

- Grants issued by state offices of aviation, such as for marketing plans, typically come from a state aviation or transportation trust fund. Airline subsidies often come from a state general fund or specific tax revenues such as toll roads, hotel taxes, and mineral royalties and are legislated accounts.

8.4 Conclusions

Prior to COVID-19, the strong performance of Georgia's nonhub airports attracted new air service and announced, proposed additional service. The two American Airlines flights from Augusta Regional Airport have been suspended due to the COVID-19 virus, and the future of the additional Delta Air Lines' service to ATL from four nonhub airports is unclear. Despite the current uncertainty, it is important that community and airport leadership continue to demonstrate to airlines the economic strengths which have contributed to strong air service performance in recent years.

The underlying economic base of Georgia's airport communities is strong enough to support air service without state subsidies to airlines. However, due to the significant amount of passenger traffic that is leaked from Georgia's nonhub airport catchment areas to larger airports (e.g. Hartsfield-Jackson Atlanta International and Florida airports), a state program, similar to other states', to increase public awareness, and marketing and advertising to promote local air travel, could help Georgia's nonhub airports increase their passenger levels. This, in turn, could increase airline revenues, thereby strengthening the community's relationship with the airlines; help communities to retain/increase air service; and further local economic development goals.

A recommended Georgia statewide program with guidelines is discussed in **Section 9**.

9. Georgia Air Service Promotion Recommendations

The Georgia Code, Title 6, Chapter 1, provides for the powers and duties of the GDOT. These powers and duties include the promotion and encouragement of the state's aviation facilities for air commerce within the state and between the state and other states or foreign countries. In consideration of these powers and duties, the following statewide initiatives and program are recommended to address issues identified during the Statewide Air Service study. The goals of these initiatives and program are to help Georgia's commercial service airports:

- Promote economic development
- Retain existing air service
- Add air service routes or carriers
- Increase frequency of service
- Reduce fares
- Increase competition
- Improve service reliability
- Increase aircraft size
- Reduce passenger leakage
- Increase demand
- Enhance public confidence in a safe and healthy airport system during the COVID-19 pandemic

9.1 Potential Statewide Initiatives

Based on the findings in this report, the following initiatives should be considered to support Georgia's commercial service airports in meeting the identified goals:

Increase Passenger Confidence: Adopt a state-sponsored campaign to promote the confidence of the traveling public that Georgia's commercial service airports are safe and healthy environments to begin or end air travel. Specifically, the state could help educate the travel consumer about safety and health precautions being taken by airlines and airports. This could include activities regarding airfield/aircraft operational safety as well as COVID-19 pandemic activities such as cleaning and sanitizing. The traveling public needs to have confidence that an airport's actions, combined with an airline's actions, create the safest and healthiest environment possible, whether a large hub or a nonhub airport. This activity could benefit all airports in attracting more passengers.

Promote Georgia's Commercial Service Airports: Engage with the Georgia Department of Economic Development and Tourism to promote the many attributes the state has to offer relative to economic development, tourism, and the state's commercial air service system. This initiative could be adopted as a "Fly Georgia Campaign" to help minimize passenger leakage to airports in other states. A "Fly Georgia" campaign could also be linked to Georgia's Department of Economic Development and Tourism "Rural Georgia Initiatives" to help communities become more competitive for economic development projects and identify strategies for attracting jobs and investment.

Increase Stakeholder Outreach: Provide leadership in data and information sharing among commercial service airports in the state. In particular, group meetings with representatives from Hartsfield-Jackson Atlanta International Airport and airlines could be productive. These meetings would involve the air service and cargo development teams at Hartsfield-Jackson Atlanta International Airport and could help Georgia commercial service airports with any of the goals identified above. This would also promote the concept that the state is a system of airports.

9.2 Potential Statewide Program

The following statewide program could be adopted to help airports with air service promotion and support statewide development goals:

9.2.1 State Air Service Support Grant Program

GDOT could establish a program similar to some other states (Iowa, Michigan, Minnesota, Missouri, and Virginia) and provide certain annual, financial assistance for commercial service airports (other than Hartsfield-Jackson Atlanta International Airport). The purpose of this program would be to help meet the goals outlined above, primarily to retain/increase service and to reduce passenger leakage to other airports.

The program would support planning, studies, meetings, education, and marketing activities related to air service development. As part of this program, airports would be eligible to seek state funding for air service-related activities which could include, but which are not limited to, the following:

1. **Advertising and Promotion**: Developing and implementing "Fly Local" initiatives to increase awareness of available airport/airline services as well as educate about the various ways a local airport contributes to its community's economy; purchasing air time on radio, television, and digital services; producing annual reports; developing billboards, banners, print and digital media, and promotional signs, brochures, flyers, and other airport promotional items; procuring on-line services including website design, hosting, and maintenance; and developing promotional videos.

2. **Planning Studies**: Procuring air-service related data such as subscriptions and memberships; procuring market-research services, such as surveys and data analysis; procuring air service-related planning studies such as leakage and benchmarking studies; marketing plans; air service-related consultant services; and, development of business, strategic, marketing and financial plans.
3. **Matching Federal Grants:** Matching federal grants offered through the Small Community Air Service Improvement Program by providing up to 50 percent of the local matching share.

9.2.2 Guidelines for a GDOT Air Service Promotion Program

It is recommended that the GDOT Office of Aviation administer the Air Service Marketing Program if it is enacted. Administration would include the following guidelines:

Airport Eligibility: All Georgia commercial service nonhub and small hub airports would be eligible to receive funding. Those airports pursuing commercial service would be eligible, as approved on a case-by-case basis.

Grant Amounts and Share: General grant amount recommendations are $40,000 at a 50 percent state share for nonhub commercial service airports and $75,000 at a 50 percent state share for small hubs.

Grant Application: GDOT would issue an annual call for grant applications. Airport sponsors would submit grant requests including a scope of work, estimated cost, and a plan for execution. GDOT staff would confirm that the scope of work is for eligible activities.

Grant Duration: Grants should be completed and closed with two years. Grants may be amended to revise the scope of work. Unused funding should be returned to GDOT upon grant closeout.

Project Eligibility: Project items eligible for assistance include those activities outlined in **Section 9.2.1** above.

Procurement: Airport sponsors would procure project professional services, materials, travel, etc., consistent with the requirements of the GDOT Airport Aid Program.

Ineligible Costs: Ineligible costs/activities could include:

- The promotion of one specific airline over another
- Payments to airlines as subsidies for air service

9.2.3 Program Objectives and Measurement of Success

Many factors can influence an airport's air service level. As stated earlier in this report, several states have indicated that they have no specific metric for directly measuring the success of air service marketing/advertisement programs and state initiatives. However, such programs and initiatives intuitively help meet objectives that can be measured. For the recommended program for Georgia, these objectives include increasing passenger levels, increasing the frequency of flights, and increasing seat capacity of the commercial aircraft serving communities. A baseline of Georgia's airports is as follows:

Table 9-1: Summary of Current State of Commercial Service Airports in Georgia

Airport	FAA Hub Classification	Passenger Growth 2014-2019	Airlines	Airline Aircraft Size (seats)	Avg. Daily Domestic Departures	2019 Annual Passenger Enplanements
Hartsfield-Jackson Atlanta International (ATL)	Large	15%	18 airlines *(9 domestic/9 international)*	Varies	1,090	53,505,795
Savannah/Hilton Head International (SAV)	Small	57%	8 airlines *(7 domestic/1 international)*	Varies	52	1,461,360
Augusta Regional (AGS)	Nonhub	25%	2 domestic airlines *(Delta Air Lines and American Airlines)*	Varies	15	330,495
Columbus (CSG)	Nonhub	3%	1 domestic airline *(Delta Air Lines)*	50	3	52,351
Valdosta Regional (VLD)	Nonhub	24%	1 domestic airline *(Delta Air Lines)*	50	3	44,180
Southwest Georgia Regional (Albany-ABY)	Nonhub	32%	1 domestic airline *(Delta Air Lines)*	50	3	41,268
Brunswick Golden Isles (BQK)	Nonhub	25%	1 domestic airline *(Delta Air Lines)*	50	3	40,730
Middle Georgia Regional (Macon-MCN)	Nonhub	Renewed federal Essential Air Service program subsidies in 2017	1 domestic airline *(Contour Airlines)*	30	2	17,109
Athens-Ben Epps (AHN)	General aviation airport which lost Essential Air Service in 2014. Received USDOT Small Community Air Service Development Program grant in 2020 to assist with reinstatement of air service.					

Source: FAA.gov, Federal Aviation Administration, https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/

An air service support program could be considered successful if it meets the objectives mentioned above, i.e., increase passenger levels, increase the frequency of flights, and increase the seat capacity of the commercial aircraft serving communities. A specific program objective could be to exceed the FAA's forecast of revenue passenger enplanements for domestic air carriers, as published in the *FAA Aerospace Forecast 2020-2040*, which assumes two percent average, annual growth through 2040. While many external factors could impact whether objectives are met, including the level of connectivity, average fares, and number of available flights at the airport, as well as factors related to population, employment and income levels specific to the locality, establishing program objectives and reporting results is one way to measure the success of the air service support program.

Appendix 1 Literature Review

This Literature Review is in support of a Statewide Air Service Study for the Georgia Department of Transportation (GDOT). The purpose of the Statewide Air Service Study is to review commercial air service conditions in Georgia and to help the Department of Transportation evaluate potential programs and policies that assist with preserving and improving air service for Georgia's commercial service airports.

The objective of the Literature Review is to identify air service issues, commercial service trends, and air service support and marketing programs. The review generally focuses on literature completed within the last five years. The reports and articles reviewed are noted below with a short abstract and key points from each. A summary of information learned from the review is provided at the end.

A1. Trends and Market Forces Shaping Small Community Air Service in the United States

MIT International Center for Air Transportation
Wittman, Michael D.; Swelbar, William S.
May 2013 (supplemented by January 2020 interview of Swelbar, William S.)
https://dspace.mit.edu/handle/1721.1/78844

This report is the first in a series of papers written under the umbrella of the Massachusetts Institute of Technology (MIT) Small Community Air Service White Paper series. The aim of the paper series is to examine and analyze the past, current, and anticipated future trends of small community air service in the United States. This report provides a high-level overview and analysis of recent commercial airline scheduling trends in the United States. Service at many of the nation's largest airports is assessed in this report, but attention is also paid to the activity at small- and medium-sized airports in the U.S.

Key points:

- Airlines have shown a clear trend of consolidating service at the nation's airports
- Small communities will continue to take creative approaches to win new service
- The trend in recent years has been to larger passenger aircraft with a reduction in regional jets
- A loss in network carrier service is generally due to a lack of local demand and proximity to a nearby hub

A2. FAA Aerospace Forecast

Federal Aviation Administration (FAA)
Fiscal Years 2019-2039
https://www.faa.gov/data_research/aviation/aerospace_forecasts/media/FY2019-39_FAA_Aerospace_Forecast.pdf

The FAA Aerospace Forecast 2019-2039 was developed to support the budget and planning needs of the FAA. The forecasts are developed using statistical models to explain and incorporate emerging trends of the different segments of the aviation industry. This document is published annually and contains updated forecasts for U.S. airline traffic and capacity, FAA workload, general aviation activity, and pilots.

Key points:

- Since the end of the 2009 recession, airlines revamped their business model to minimize losses by lowering operation costs, eliminating unprofitable routes, and grounding older, less fuel-efficient aircraft
- The airline industry has consolidated with three major mergers in five years
- The year 2018 marked the tenth consecutive year of profitability for the U.S. airline industry.
- Current trends in the air carrier industry are:
  - Selective seat capacity expansion;
  - Steady growth of seats per aircraft; and
  - Increasing competitive pressure due to ultra-low-cost carrier expansion.
- Over the last ten years, regional carrier growth in seat capacity is only 0.5 percent, compared with 14.8 percent growth by mainline carriers
- Regional airlines are facing a pilot shortage
- Regional airline capital costs have increased in the short-term as they continue to replace their 50-seat regional jets with more fuel-efficient 70-seat jets
- FAA forecast calls for U.S. carrier domestic passenger growth over the next 20 years to average 1.8% per year

A3. ACRP Report 142: Effects of Airline Industry Changes on Small- and Non-Hub Airports

Airport Cooperative Research Program (ACRP)
2015
http://www.trb.org/Publications/Blurbs/173167.aspx

This report describes policy and planning options for small- and non-hub airport operators and managers as they respond to changing conditions in the airline industry. It also identifies forces that affect airline operations; reviews airline industry trends; documents patterns of airline industry change; and assesses current programs that airports are using to respond to changes. The report provides recommended air service strategies to use in retaining or attracting new air service.

Key points:

- In recent years, air service at small- and non-hub U.S. airports has changed significantly in response to changing economic conditions. Service decreases at these airports have been accompanied by a shift or decline in overall airline seat capacity.
- Airline consolidation, coupled with an increase in disciplined management of seat capacity for domestic service, has helped to minimize costs while increasing upward pressure on airfares.
- The emphasis on managing seat capacity has led airlines to reevaluate individual routes in order to maximize airline profits.
- In response to fuel-cost volatility, airlines have changed the fleet mix with decreased use of smaller, regional jets in favor of larger, newer aircraft. This change will continue to affect the availability of service to small- and non-hub airports.
- Air carriers do not choose new routes in a vacuum but through a comparative analysis of likely route profitability across communities.

- Although incentive programs can influence air carrier decisions, local economic growth and market demand are the factors most likely to influence air carrier decision-making.
- Many of the factors that determine whether an air carrier will start new service in a community are out of the hands of airport and community leaders.
- Due to industry passenger seat capacity reductions and the competitive nature of air service development, a focus on retaining existing air service can be an effective strategy.
- When deciding whether to initiate an air service development program, communities must weigh the cost of the initial investment in incentives with the likelihood that their market can sustain the service once the incentives end.
- There is little connection between air service growth and population growth; however, there is a stronger connection between air service growth and regional employment change.
- An indirect benefit of local economic development projects is the building of market demand for air service demand efforts.
- Recommended strategies for air service development start with a self-assessment of the airport's service. The report provides a self-assessment tool.
- Strategies for air service development vary based on the strength of a community's economy, its air service profile, recent airline performance, and the level of community engagement. Strategies involve a strong level of community involvement, marketing, generating local support, airline incentive programs, and reducing short-term risks and costs to the air carrier.

A4. Report of the Working Group on Improving Air Service to Small Communities

U.S. Department of Transportation (USDOT)
May 9, 2017
https://www.raa.org/wp-content/uploads/2019/04/DOT_Working_Group_on_Small_Community_Air_Service_Report_002.pdf

Section 23031 of the FAA Extension, Safety, and Security Act of 2016 (P.L. 114-190) directed the Secretary of Transportation to establish a Working Group on Improving Air Service to Small Communities. The Secretary appointed 25 stakeholders representing a cross-section of airport officials, state aviation officials, airline executives, a pilot union, consultants, and academics.

The mandate of the working group was to consider three subject areas:

- Current or potential new air service programs, including the Essential Air Service (EAS) program and the Small Community Air Service Development Program (SCASDP)
- Initiatives to help support pilot training and aviation safety
- Whether federal funding for airports serving small communities is adequate

The working group was also directed to report on "public-private partnerships that are successful in attracting and retaining air transportation service."

Key points:

- The report presents the present state of air service at small communities and indicates that these communities face a challenging environment for attracting and retaining commercial service. Factors affecting this include airline consolidation, airline fleet changes to larger aircraft, evolving airline business models, inadequate funding to airports, macro-economic influences, and a shortage of qualified pilots.

- From 2007-2016, smaller communities have lost over 31 percent of scheduled departures, 17 percent of available passenger seats, and 13 percent of connectivity to hubs.
- A nationwide shortage of pilots is one of the challenges to air service for small communities. The working group recommended that Congress direct the FAA to reevaluate the number of pilot hour requirements.
- The working group indicated that the Essential Air Service (EAS) program is the backbone of small community air service and that Congress should enhance and fully fund this program.
- The working group stated that the Small Community Air Service Development Program (SCASDP) is an important and effective complement to the Essential Air Service (EAS) and warrants further investment.
- The working group recommended that aircraft manufacturers be incentivized to produce aircraft to serve smaller communities.
- The report identifies several successful public-private partnerships (Fargo, ND; Sonoma, CA; Bozeman, MT; Wyoming Air Service Enhancement Program; and the EAS Program at Pittsburgh).

A5. ACRP Synthesis 68: Strategies for Maintaining Air Service

Airport Cooperative Research Program (ACRP)
2015
http://www.trb.org/Main/Blurbs/173208.aspx

This synthesis report documents various strategies for maintaining air service.

Key points:

- The controlling and lowering of costs are of paramount concern to airlines.
- One step to understanding how an airport compares to others is to audit current charges and benchmark them against a peer set of airports.
- Strategies to retain or expand air service relate to cost control, positive communication between airport leaders and the airlines, and community engagement.

A6. ACRP Report 18: Passenger Air Service Development Techniques

Airport Cooperative Research Program (ACRP)
2009
http://www.trb.org/Publications/Blurbs/162396.aspx

This guidebook is targeted toward the air service development needs of smaller communities and provides an overview of the competitive challenges facing small communities and of the various elements of an air service development program.

Key points:

- Major competitive air service challenges facing small communities include:
  - Proximity to a legacy network hub
  - Proximity to an airport with low-cost carrier service
  - Small populations that are geographically isolated
  - Fragmentation of the local passenger traffic base among competing nearby airports
  - Predominantly inbound markets that rely on tourism

- Frequently mentioned goals of an air service development program include
  - Retaining existing service
  - Adding service to new destinations
  - Increasing frequencies of current services
  - Lowering fares/introducing competitive service
  - Improving service reliability
  - Up-gauging aircraft
- Information that airports present to carriers:
  - Business case to airlines
  - Route analysis
  - Projections or forecasts
  - Demographic and economic data
  - Research on leakage
  - Business travel information
- Air service development techniques include:
  - Minimum revenue guarantees
  - Guaranteed ticket purchases ("travel banks")
  - Cost subsidies
  - Marketing and advertising
  - Non-financial (in-kind) contributions
  - Air service development consultants
- All else being equal, communities with major population, employment, and income will demand more air service. As passenger demand increases, the supply of air service will increase to meet the demand. Communities with greater levels of income and gross regional product, larger populations, and higher employment levels will receive more substantial air service.
- A key aspect of passenger demand at a smaller community is the availability of alternatives. Travelers to or from smaller communities will demand more air service if the alternatives to that air service (e.g., service at another airport or the availability of interstate highways) are either costly or unavailable.
- An additional variable that influences demand at small airports is their association with regional or natural attractions that may cause significant seasonality in demand.

A7. ACRP Report 98: Understanding Airline and Passenger Choice in Multi-Airport Regions

Airport Cooperative Research Program (ACRP)
2013
http://www.trb.org/Publications/Blurbs/170194.aspx

This Guidebook helps airport management and their stakeholders better understand the factors that drive airline service decisions and passenger choices in multi-airport regions. Chapter 5 of this Guidebook specifically discusses airline business models, drivers of passenger demand, and revenue generation considerations for airlines.

Key points:

- Airlines choose to serve markets based on the perceived potential contribution to system revenue and ultimate profitability.
- The demand for passenger service is the driving force for business decisions in the airline industry. Passenger air travel demand is the sum of individual decisions by potential air travelers, aggregated to a level that provides sufficient revenue to support the sustainable and profitable provision of air service in a market.
- Passenger airlines seek to tailor their business models to both accommodate this demand and to drive the resulting revenue.
- Fundamental to any airline consideration of air service in a market is its evaluation of the underlying size and nature of air travel demand. Such evaluation will address the following:
  - Size of the overall market
  - Nature of the market (business vs. leisure, propensity to travel, disposable income, etc.)
  - City-pair market size
  - Market demand, traffic trends, and causation (growth, stagnation, decline)
  - Specialized business demand drivers (corporate headquarters, production facilities, etc.)
  - Inbound leisure demand
  - Ethnic and cultural market affinities
- These primary characteristics of air travel markets are quantified, evaluated, forecast, and applied to potential air service scenarios as part of airline route planning.

A8. ACRP Research Report 218: Building and Maintaining Air Service Through Incentive Programs

Airport Cooperative Research Program (ACRP)
2020

This Report offers advice for using incentive programs for growing and maintaining commercial air service. The Report helps airport and community leaders gain a better understanding of the opportunities and limitations of air service incentive programs, assess their potential benefits and risks, and develop a program that addresses their unique goals.

Key points:

- Incentives are common in the U.S. with most airports offering some form of incentive to airlines.
- Types of air service incentives typically offered by airports include:
  - Reduction or waiver of fees (i.e., airport rents, landing fees, facility fees)
  - Market support or assistance
  - Start-up costs/offsets such as provision of equipment, training, or personnel.
- Airport financial incentives are subject to certain restrictions such as duration and ensuring active airline competition.
- Based on federal law, airports generally cannot offer subsidies such as direct cash payments to carriers, and incentives are limited to one year for new airline entrants and two years for incumbent and new airlines.

- Community-sponsored (not airport) incentives have become more significant as a potential differentiator among airports and their air service incentive programs.
- Community-sponsored incentives are not subject to FAA restrictions as long as they are not airport-directed, determined, or funded.
- Community incentives can be offered by state governments, local governments (i.e., a different funding source than the airport), chambers of commerce, economic development corporations, convention and visitors bureaus, and other businesses or governmental organizations.
- Community-sponsored incentives include:
  - Minimum revenue guarantees to airlines providing for service
  - Advertising or marketing assistance and support to promote airport services and the region as a destination
  - Travel banks, wherein local businesses or individuals dedicate funds to be used only for purchasing tickets on a new route over a given period
- The right incentive approach for an airport depends upon many factors, including the size of airport, types of routes sought, competition from other airports, and the level of engagement around air services in the local community and the state level.
- The Report shows data compilation for the extent to which each hub-size airport uses specific incentives. Nonhub airport usage of incentives:
  - 48 percent have a marketing assistance program
  - 40 percent offer fee waivers
  - 20 percent provide terminal rent rebates
  - 53 percent involve community organizations
  - 26 percent involve local governments in the funding
  - 56 percent use USDOT Small Community Air Service Development Program (SCASDP) grants
  - Only five percent involve state government
- There are few strong statistical links between the presence of incentive programs at airports – whether airport-directed or community-directed – and service variables (annual flights, departing seats, and Quality of Service Index), especially at medium and large hubs. There are, however, more clear-cut estimates, expressed as percentage changes in annual departing seats, for the impacts of incentive use at small hub and nonhub airports. For nonhubs of approximately 200,000 enplanements, the increase in departure seats from incentive programs is about 10 percent based on data analysis.
- Depending on the baseline annual seat departures at a nonhub airport, the use of incentives is associated in the analyzed data with approximately 200 and 700 annual airport-associated jobs (direct and indirect).
- Results from incentive programs for a given airport will depend on many factors such as structure of the incentives offered by a particular airport, the types of airlines and passengers making use of the airport, the overall local and national economic environment, and many other factors.

A9. GAO Report 14-45T: Status of Air Service to Small Communities and the Federal Programs Involved

U.S. General Accounting Office (GAO)
April 2014
https://www.gao.gov/assets/670/662831.pdf

This GAO report reviews (1) airline industry factors affecting air service to small communities, (2) federal programs and policies that support air service to small communities, and (3) other options for improving access to air service for small communities.

Key points:

- Communities see access to air transportation services as a driver for attracting investment and for generating employment.
- Establishing and retaining reliable air service to small communities has been a challenge for decades. These challenges have included fuel costs, declining population, and for some communities, more attractive service within driving distance (e.g., a larger airport).
- Two federal programs to help small communities with air service have been Essential Air Service (EAS) and the Small Community Air Service Development Program (SCASDP).
- Essential Air Service (EAS) may not always be the most cost-effective option for connecting people to the national transportation network.
- Reviews of the Small Community Air Service Development Program (SCASDP) indicate that the effectiveness of the program has had mixed success, with about half or less of the grants achieving their goals.
- Multimodal and community-based approaches such as bus service can be used to help small communities connect to the nation's transportation network.

A10. Investigating the Effect of Flight Delays and Cancellations on Travel from Small Communities

Matthew J. Stone; California State University - Chico
June 2015
https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1017&context=ttra

This study addresses the impact of flight delays and cancellations at some of the nation's smallest commercial service airports. Flight connections are usually necessary when traveling from small airports and, therefore, flight departure delays may lead to missed connections. This study examined four of the smallest non-EAS airports with daily, year-round connecting service from a major airline to four large hub airports.

Key points:

- Reliability of air service has been anecdotally cited as a challenge to small community air travelers. High delay and flight cancellation rates at small airports can further lead to travel difficulties to travelers. Considering non-stop and connecting itineraries from small community airports, departure delays and cancellations can lead to extensive arrival delays with limited options for rebooking.
- This study found that one in six itineraries from small community airports to several major airports would result in a missed connection based on average cancellation and delay statistics.

- Unreliability of flights can cause travelers not to fly from a local airport. If this causes passenger numbers to drop at small airports, airlines may remove commercial service from the community. Small communities need to be aware of cancellation and delay statistics for their airports. Small community airport managers should engage with airline representatives to reduce or eliminate many of these delays and cancellations.

A11. Commercial Air Service Improvement Plan

Wyoming Department of Transportation
July 2018
http://www.dot.state.wy.us/files/live/sites/wydot/files/shared/Aeronautics/Air%20Service/CommercialAirServiceImprovementPlanFinal_073018.pdf

This plan outlines the state of Wyoming's commercial air service history, air service needs, community needs, a Capacity Purchase Agreement (CPA) methodology, steps for how to deploy the methodology, and a vision for the future of air service in Wyoming.

Key points:

- The majority of Wyoming's nine commercial airports face challenges in retaining and growing commercial air service. A lack of qualified pilots, airline consolidation, small aircraft retirements, and funding shortfalls hinder adequate air service in many small communities nationwide.
- Wyoming's Air Service Enhancement Program was created in 2004 to address commercial air service deficiencies and to build stability throughout the state. Over time, the program decreased in funding and new challenges within the industry adversely affected reliable service to rural areas.
- In 2018, the Wyoming Commercial Air Service Improvement Act created the Commercial Air Service Council and appropriated $15 million to a newly created Wyoming Commercial Air Service Account.
- A Capacity Purchase Agreement (CPA) is a business model used in the airline industry between major carriers and smaller, regional carriers. The Wyoming 2018 Act allows the state to contract with one airline to purchase air service capacity to participating communities. The CPA helps establish reliable daily service to a major hub, stronger control over the financial sustainability of the service, online booking capability, a code-sharing arrangement with a major carrier providing connection opportunities beyond the hub, and the ability to check bags all the way to the final destination.
- The Wyoming Commercial Air Service Improvement Council identified the following four items are necessary for a successful, long-term plan: (1) sustainable, reliable air service; (2) a strong partnership between local, state and industry stakeholders; (3) community involvement and education; and (4) an increase in air travel opportunities throughout the state.
- The 2018 plan recommends continued 2019 state funding for CPA and requires participating communities to establish a marketing plan and to pay a 40% match for the CPA.

A12. Issue Brief: Air Service Development

Ohio Aviation Association
2019
https://www.ohioaviation.org/assets/docs/2019%202020%20Air%20Service%20Development%20Daft%20Final.pdf

This issue paper addresses the competitive environment for new international and domestic air service and promotes the establishment of a $15 million state air service development grant.

Key points:

- Competition for international and domestic air service is increasing due to airline consolidation and a shortage of qualified pilots.
- Air carriers often look for financial incentives to reduce some of the risks in providing service, particularly in unproven markets.
- Federal Aviation Administration (FAA) regulations prohibit airports from directly subsidizing air carriers to provide air carrier service. However, some states and communities have partnered to develop air service incentive funds to support new air service.
- Ohio is at a competitive disadvantage with neighboring states in terms of economic and workforce development. Indiana invested $5.5 million per year for Delta Air Lines service from Indianapolis to Paris. Pennsylvania is investing $3 million per year for British Airways flights between Pittsburgh and London.
- The Ohio Aviation Association recommends the development of a $15 million state air service development grant to support new international and domestic air service as well as increased passenger capacity on existing routes.

A13. Virginia Commercial Air Service Strategic Review

Commonwealth of Virginia, Virginia Department of Transportation
December 2015
https://doav.virginia.gov/contentassets/abab167b0b0f47ae83823499fe103004/doav-strategic-review-final-december-2015-reduced3.pdf

This report explores air service trends and strategies of the nine primary commercial service airports in Virginia. It includes specific information about national, statewide, and local air service trends within the U.S. over a ten-year period (2005-2014); an air service vulnerability benchmarking analysis; and a strategic assessment for Virginia's small- and non-hub airports.

Key points:

- Passenger traffic service in Virginia declined by 6.5 percent, compared to a national increase of 0.5 percent over the ten-year period studied.
- Virginia lost more seats and departures than the national average.
- International service increased in Virginia, exceeding national increases.
- In 2015, Virginia remained heavily reliant on regional jets.
- The report provides a detailed analysis comparing Virginia's airport service performance for each of Virginia's airports directly to a set of peers. This approach is called a benchmarking analysis.

- Federally funded programs designed for small communities are Essential Air Service (EAS) program and the Small Community Air Service Development Program (SCASDP).
- Principal incentives that airports use to attract airlines include waiving or reducing airport fees; marketing and advertising services; minimum revenue guarantees; travel banks; and direct subsidies.
- Statewide air service incentive programs can be a source of funding in addition to federally funded initiatives. A state incentive program can help enhance existing service and promote new service to a community. The report identified seven states that had programs in 2015 and four others that had attempted to create a program but were unsuccessful. The report identifies the following states with programs in 2015, including Virginia, Iowa, New Mexico, Wyoming, Michigan, West Virginia, and Kansas.

A14. Air Service Study

Florida Department of Transportation
2016
https://www.fdot.gov/aviation/fas-studies.shtm

This study was developed to evaluate the current state of Florida's aviation industry. Its purpose was to provide the Florida Department of Transportation (FDOT) and Florida's 20 commercial service airports with accurate summary data for use in progressing Florida's aviation industry. The 2016 Air Service Study used data from trusted industry sources such as The Official Airline Guide and the United States Department of Transportation's Bureau of Transportation Statistics. By comparing current and historical data, the study identified and reported trends and major changes in commercial service at Florida's airports. The FDOT has been preparing an air service study every few years, since the year 2000.

Key points:

- At the time of publication, the year 2015 yielded the highest level of annual enplanements from Florida airports in recorded history at just above 80 million. The increasing trend in annual enplanements steadily grew after a large decrease between 2007 and 2009. Overall, the trend reflected the current success and operational efficiency of Florida's commercial service airports and transportation systems.
- Collectively, Florida airports comprised nearly ten percent of all U.S. passenger enplanements. This number is enhanced by the four large-hub airports in Florida, which accounted for nearly 8 percent of total passenger enplanements in the U.S. Since the 2013 Air Service Study, Northeast Florida Regional Airport in St. Augustine was added as an airport with commercial service.
- The success and growth of Florida aviation is a trend that has maintained steadiness throughout each edition of this report. Florida's growing air travel is attributed to multiple factors including major amusement parks, numerous beaches, and other tourist destinations.

A15. Airport Deserts – Exploring the Distance between Airports and the Cities They Serve

UpgradedPoints.com
January 19, 2020
https://upgradedpoints.com/airport-deserts-data-study/#Airport-Proximity-Best-and-Worst-Cities
https://allongeorgia.com/georgia-state-news/report-georgia-cities-rank-among-the-worst-for-airport-access/

This web article summarizes a data study of cities across the U.S. with 50,000 or more residents, tracking their proximity to commercial service airports of all sizes. It points out that as airlines have cut costs in recent years, many small cities have lost air service. For residents of these communities, catching a flight can require driving for hours to the nearest major hub. The focus of this study is on proximity to commercial airports, not on the level of connectivity, fares, or the number of available flights.

A later article by AllOnGeorgia, Report: Georgia Cities Rank Among the Worst for Airport Access, February 2, 2020, discusses the Upgraded Points report and concludes that access to Georgia airports has Georgians served at different levels.

Key points:

- The article is based on outdated information; does not discuss why 50,000 was chosen as the population level to study; does not discuss the adequacy of a highway transportation system, nor the availability of other air transportation such as charter service at nearby general aviation airports. The article does not reflect the current airline status of Georgia airports.
- 71.2 percent of the cities studied are under 25 miles from a commercial service airport and 0.8 percent are at least 76 miles away.
- The article states that Warner Robins, Georgia is the third farthest city (over 50,000 residents) in the U.S. from any commercial service airport, with the closest airport, Columbus, 85 miles away ("a non-hub primary served by a single airline"). The article does not mention the proximity to Atlanta.
- The article states that Athens, Georgia is the fourth farthest city at 82 miles away from the large hub of Atlanta.
- The article states that Macon, Georgia is the sixth farthest city in America from a commercial service airport at 78 miles from Atlanta.

A16. How Airline Deregulation Deprived Smaller U.S. Cities of Growth

CityLab.com
November 5, 2019
https://www.citylab.com/equity/2019/11/flights-airports-airline-deregulation-economic-research/601339/

This web article indicates that the concentration of airline service resulting from deregulation has tilted the economic playing field toward larger metropolitan areas. It discusses the relationship between airports and economic growth and the role of airline incentives at small- and medium-sized cities.

Key points:

- The 1978 Airline Deregulation Act resulted in a significant shift in airline service away from smaller- and medium-sized cities.
- Quoted articles indicate that a 50 percent increase in annual air traffic leads to a 1.6 percent increase in population growth, 1.7 percent in income growth, and 2.7 percent in annual employment growth.
- Airports drive 21st-century economic growth in a way that is similar to how railroads drove the 19th century and the highway interstate drove the 20th century.
- As a result of deregulation, small- and medium-sized cities have had to turn to incentives to get airlines to provide the service that regulation once required them to provide. The article quotes an Airports Council International-North America survey as showing that 60 percent of responding airports use subsidies or other incentives to attract domestic flights.
- As air service has shifted to bigger cities and hub airports, those metro areas gain disproportionately, while smaller and mid-sized metro areas not only lose flights but become less connected to the national and global economies and miss out on the local economic benefits associated with airline service.

A17. Valuable Service: Air Service to Small Communities Generates Significant Economic Activity

Regional Horizons, Regional Airline Association
First Quarter 2019
https://www.raa.org/valuable-service-air-service-to-small-communities-generates-significant-economic-activity/

This article discusses the impact of changing air service patterns on the economic activity of communities.

Key points:

- Air service is an important driver of economic activity and jobs. Small community air service generates a significant amount of economic activity.
- There are 570 small community airports in the U.S., and air service to those airports generates $134 billion of economic activity in their respective communities. These airports also create one million jobs and generate $36 billion in wages and tax revenues.
- Flights from small communities to hub airports, and consequently one-stop service to cities around the world, is critical. This connectivity enables businesses to be based entirely or partly in these communities.
- Despite the value of air service to small communities, service is threatened because mainline airlines intensely focus on profitability and may conclude that service to a smaller market is not worth it – particularly if there are not enough pilots to fly the routes.

A18. Why Air Service is So Crucial for Small Cities

Vox
November 12, 2018
https://www.vox.com/the-goods/2018/11/12/18080806/air-service-small-cities-crucial

This web article reviews why small communities struggle to maintain air service, the importance to local economies, and how some communities are partnering with airlines to maintain or expand service.

Key points:

- In the past four years, 32 communities nationwide have lost air service.
- Airline cutting of routes is due to high operating costs, lack of passengers in a small market, and a pilot shortage.
- Airlines are partnering with regional carriers to restore flights to underserved areas. One example is Columbia, Missouri. Columbia expanded its service to Denver, guaranteeing United Airlines at least $600,000 in revenue in one year. The city also waived the landing and rental fees at the airport by $125,000 and spent $250,000 on marketing for United flights to and from Denver.
- In order to ensure airlines will not lose money on partnership deals, cities often raise money beforehand, usually through a mix of government funding and private donations. In Cheyenne, Wyoming, $2.3 million came from a mix of state subsidies, city-allocated funds, and private donations. These funds were used to partner with SkyWest for service to Dallas.
- Commercial air service is important to the economic growth and quality of life in rural or low population areas. When airlines leave, companies sometimes follow.
- State subsidies and private donations are enough to bring back commercial airlines for some cities, but other cities need more help from programs like the federal Essential Air Service (EAS) Program.

A19. Air Service Incentive Program

Various web articles, airport websites and FAA guidance
https://www.faa.gov/airports/airport_compliance/media/air-carrier-incentive-2010.pdf

Key points:

- The Federal Aviation Administration (FAA) has established an Air Carrier Incentive Program. FAA's 2010 Air Carrier Incentive Program Guidebook is current and provides guidance to airport sponsors interested in offering promotional incentives to attract new air carrier service at federally obligated airports. FAA's guidebook provides the following four steps for those sponsors wishing to adopt programs:
  1. Review and understand Airport Sponsor Assurances and applicable laws and policies.
  2. Identify the goals of the program and the types of services that may be covered under incentive programs.
  3. Define incentive program timelines.
  4. Design a properly structured incentive program.
- Web articles indicate that several airports have adopted air service incentive programs over the past few years. A few examples include Daytona Beach, Wichita, Cincinnati, Miami, and St. Louis. The objectives of these programs include:

    - Stimulate passenger service
    - Increase revenue
    - Reduce passenger operating costs and start-up risks for airlines
        - Support and enhance economic development within the community through increased air service

- Air service incentive programs target new service or new flights to selective destinations. Incentives have time limits per FAA guidance. Examples of incentives include:
    - Marketing support
    - Waiving of landing fees
    - Waiving or reducing of terminal facility rent
- Airport owner provision of ground handling services
- Free parking for passengers
- Revenue guarantees
- Utility cost credits

A20. Summary of Information Learned from Literature Review

Based on the literature reviewed, the following are major points to be considered for the Georgia Statewide Air Service Study.

Small communities are facing a challenging environment for attracting and retaining commercial air service. Factors affecting this include airline consolidation, airline fleet changes to larger aircraft, evolving airline business models, inadequate funding to airports, macro-economic influences, and a shortage of qualified pilots.

In recent years, 32 communities nationwide have lost air service. Airline cutting of routes is due to high operating costs, lack of passengers in a small market, and a pilot shortage.

Since the end of the 2009 recession, airlines revamped their business model to minimize losses by lowering operation costs, eliminating unprofitable routes, and grounding older, less fuel-efficient aircraft. As airlines have cut costs in recent years, many small cities have lost air service. For residents of these communities, catching a flight can require driving for hours to the nearest major hub.

Strategies for air service development vary based on the strength of a community's economy, its air service profile, recent airline performance, and the level of community engagement. Strategies involve a strong level of community involvement, marketing, generating local support, airline incentive programs, and reducing short-term risks and costs to the air carrier. When considering an air service development program, community leaders should clearly identify the goals of the program. Goals may include retaining existing service, adding service, increasing the frequency of flights, reducing fares, increasing competition, improving service reliability, and increasing aircraft size.

Many U.S. airports offer an air service incentive program which allows airports to offer incentives for new service or target destinations. The principal incentives that airports use to attract airlines include waived or reduced airport fees; marketing and advertising services; minimum revenue guarantees; travel banks; and direct subsidies.

Statewide air service incentive programs can be a source of funding in addition to local and federally funded initiatives. A state incentive program can help enhance existing service and promote new service to a

community. The literature reviewed indicates seven states had programs in 2015, and four others had attempted to create a program but were unsuccessful. The following states were reported as having had successful programs in 2015: Virginia, Iowa, New Mexico, Wyoming, Michigan, West Virginia, and Kansas.

Additional research conducted during the Georgia Statewide Air Service Study suggests that one or more of the seven states with active programs in 2015 have either evolved or discontinued their program. Also, other states may currently have program initiatives underway. A subsequent section of this Statewide Air Service Study will summarize information obtained from all states and will discuss specific statewide incentive programs in more detail.

A recent Airport Cooperative Research Program Research Report indicates that the majority of commercial service airports have some sort of incentive program. Approximately half of nonhub airports have marketing assistance programs, use SCASDP grants, involve community organizations, and offer fee waivers (e.g., landing fees, rent reduction). The Research Report further concluded from data analysis that airport/community-sponsored incentive programs are linked to up to a 10 percent increase in annual departure seats. Additional seat departures translate to approximately 200-700 direct and indirect additional jobs. These conclusions also depend on many factors such as the structure of the incentives offered by a particular airport, the types of airlines and passengers, the overall local and national economic environment, and many other factors.