

# South Carolina

THE ECONOMIC  
IMPACT OF

# Aviation

## FINAL REPORT

MAY 2006

South Carolina Department of Commerce  
Division of Aeronautics

Prepared by  
**Wilbur Smith Associates**  
in association with  
**EDR GROUP**  
and  
**Franks and Associates**

---

Technical Report

# **South Carolina Aviation Economic Impact Study**

Prepared for:

**South Carolina Department of Commerce**  
***Division of Aeronautics***

May 2006

Prepared by:

**Wilbur Smith Associates, Inc.**

In Association with:

**EDR Group**

and

**Franks and Associates**

The preparation of this document was financed in part through a planning grant from the Federal Aviation Administration (FAA) as approved under the Airport and Airways Improvement Act of 1982. The contents of this report reflect the views of the Consultant, which is responsible for the facts and the accuracy of the data depicted herein, and 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 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 in accordance with applicable public laws.

---

## Table of Contents

|  |           |
|--|-----------|
| <b>Chapter 1. Introduction .....</b>                                   | <b>1</b>  |
| 1.1 South Carolina’s Airport System.....                               | 1         |
| 1.2 Economic Impacts of Aviation .....                                 | 2         |
| 1.3 Study Approach and Scope.....                                      | 3         |
| 1.4 Report Outline .....   | 4         |
| <b>Chapter 2. Economic Impact Methodology .....</b>                    | <b>5</b>  |
| 2.1 Airports Studied and Airport Activity .....                        | 5         |
| 2.2 Types of Economic Impacts .....                                    | 11        |
| 2.2.1 Determining Direct Impacts .....                                 | 11        |
| 2.2.2 Determining Indirect Impacts .....                               | 12        |
| 2.2.3 Determining Multiplier Impacts .....                             | 13        |
| 2.3 Measures of Economic Impact .....                                  | 14        |
| <b>Chapter 3. Demographic &amp; Economic Trends.....</b>               | <b>16</b> |
| 3.1 Population.....  | 16        |
| 3.2 Employment.....  | 16        |
| 3.3 Unemployment .....   | 18        |
| 3.4 Household Income.....  | 18        |
| 3.5 Gross State Product .....  | 19        |
| <b>Chapter 4. Economic Impacts of Aviation in South Carolina .....</b> | <b>21</b> |
| 4.1 Direct Impacts.....  | 21        |
| 4.2 Indirect Impacts .....   | 24        |
| 4.3 Multiplier and Total Impact Summary .....                          | 30        |
| 4.4 Total Impacts by Airport.....                                      | 31        |
| 4.5 Study Year Impacts vs. 1990 Study Impacts.....                     | 40        |
| 4.6 Other Qualitative and Productivity Benefits .....                  | 42        |
| 4.6.1 Qualitative Benefits.....  | 42        |
| 4.6.2 Business Use of South Carolina Airports.....                     | 44        |
| 4.6.3 Measuring Value-Added Impacts.....                               | 45        |
| 4.6.4 Qualitative Impact Summary.....                                  | 47        |
| <b>Chapter 5. Tax and Revenue Analysis .....</b>                       | <b>48</b> |
| 5.1 Aviation Taxes and Fees in the U.S. ....                           | 48        |
| 5.1.1 Sales Taxes on Aircraft, Parts and Services .....                | 48        |
| 5.1.2 Personal Property and Registration Fees .....                    | 50        |
| 5.1.3 Sales and Excise Taxes on AvGas and Jet Fuel.....                | 53        |
| 5.1.4 Exemptions .....   | 55        |
| 5.2 Aviation-Related Tax Collection in South Carolina.....             | 57        |
| 5.2.1 Direct Aviation Taxes and Revenues.....                          | 57        |
| 5.2.2 Income Taxes Associated with Economic Impacts .....              | 64        |
| 5.3 Tax Analysis Summary.....  | 65        |

## Appendices

## Exhibits

| <u>No.</u> | <u>Title</u>   | <u>Page</u> |
|------------|--|-------------|
| 2-1        | Study Airports and Military Airfields .....  | 6           |
| 2-2        | Based Aircraft by Airport .....  | 7           |
| 2-3        | Aircraft Operations by Airport.....  | 9           |
| 2-4        | Economic Impact Types.....   | 11          |
| 2-5        | Components of Economic Impact Types .....  | 13          |
| 2-6        | Economic Impact Types and Measures .....   | 15          |
| 3-1        | Population Trends by County – 1990- 2005.....  | 17          |
| 3-2        | Employment and Average Earnings – 2005.....  | 17          |
| 3-3        | National Unemployment Rates – 2005 .....   | 18          |
| 3-4        | Household Income by County – 2005 .....  | 19          |
| 3-5        | Gross State Product – 2000-2004.....   | 20          |
| 4-1        | Economic Impact Summary .....  | 21          |
| 4-2        | Direct Economic Impacts by Airport .....   | 22          |
| 4-3        | Commercial Passenger Enplanements and Visitor Characteristics .....                    | 25          |
| 4-4        | General Aviation Visitors and Impacts by Airport Type .....                            | 26          |
| 4-5        | Indirect Economic Impacts by Airport.....  | 28          |
| 4-6        | Economic Impacts by Airport Type, Impact Measure and Impact Type – 2005 .....          | 30          |
| 4-7        | Total Economic Impacts by Airport .....  | 32          |
| 4-8        | Output (Economic Activity) Impacts by Type and Airport.....                            | 34          |
| 4-9        | Earnings Impacts by Type and Airport.....  | 36          |
| 4-10       | Job Impacts by Type and Airport .....  | 38          |
| 4-11       | Economic Impacts by Airport Type, Impact Measure and Impact Type – 1990 .....          | 40          |
| 4-12       | Economic Impact Changes – 1990 vs. 2005.....   | 41          |
| 4-13       | Qualitative Activity Benefits .....  | 43          |
| 5-1        | State and Local Sales Tax Rates on Aircraft, Parts & Services – by State.....          | 49          |
| 5-2        | General Aviation Aircraft Property Tax Rates – by State .....                          | 50          |
| 5-3        | General Aviation Aircraft Registration Fees – by State .....                           | 51          |
| 5-4        | General Aviation Aircraft Property Tax & Registration Fee Summary – by State .....     | 52          |
| 5-5        | Sales and Excise Tax Rates on AvGas and Jet Fuel – by State .....                      | 54          |
| 5-6        | Aviation Tax Exemptions – by State .....   | 56          |
| 5-7        | SC Sales and Use Tax Collections for Aviation-Related Industries – by Year.....        | 57          |
| 5-8        | Commercial Aircraft Tax Tabulation Example .....                                       | 58          |
| 5-9        | SC Commercial Aircraft Property Tax Collections – 1993-2004 .....                      | 59          |
| 5-10       | General Aviation Aircraft Millage Rates and Property Taxes by County – 2004 .....      | 60          |
| 5-11       | Aviation Fuel Sales and Estimated Tax Receipts .....                                   | 62          |
| 5-12       | Total Estimated Direct Aviation Taxes by Type and Jurisdiction – 2004 (Millions) ..... | 63          |
| 5-13       | State Individual Income Tax Rates – 2004 .....   | 64          |
| 5-14       | Anticipated Flow of Fuel and Property Taxes .....                                      | 67          |

---

# **Chapter 1: Introduction**

---

## **Chapter 1. Introduction**

A strong relationship exists between South Carolina's economy and aviation. In today's global market place, the state's system of commercial service and general aviation airports is essential. South Carolina's diversified system of airports helps to both lead and sustain growth and economic diversification. Airports in South Carolina support the state's economy, and are themselves economic generators. In doing so, residents, businesses, and the state's visitors also rely on the airport system for health, welfare, and safety needs. Further, South Carolina's military airfields are also important to our national security.

The Department of Commerce, through its Aeronautics Office, commissioned this economic impact study to quantify the economic impacts, qualitative benefits, and tax revenues attributable to South Carolina' airports and military airfields. This study was conducted by Wilbur Smith Associates in association with Economic Development Research Group (EDRG) and Franks and Associates.

### **1.1 South Carolina's Airport System**

South Carolina is served by a diversified system of commercial service and general aviation airports. The state's six commercial service and 54 general aviation airports are essential underpinnings to South Carolina's diversified business base, its growing population, and its burgeoning tourism industry. In addition, South Carolina is home to four busy military airfields.

Aviation is generally assigned to three categories: commercial, general aviation, or military. Commercial aviation includes all scheduled airline flights, charter flights, and flights flown by air cargo companies. All other flights by civilian aircraft are classified as general aviation. Aside from commercial and general aviation, some of South Carolina's public airports also accommodate varying levels of activity associated with military aircraft. The four important military airfields are restricted to military activity.

Commercial Service Airports – South Carolina's commercial service airports include those serving Charleston, Columbia, Florence, Greenville-Spartanburg, Hilton Head, and Myrtle Beach. These airports are served by many of the nation's prominent domestic airlines. Commercial aircraft that serve South Carolina airports include larger jets that seat over 100 passengers, as well as many regional jets that typically seat 50 passengers. Non-stop scheduled commercial service is provided to most airline connecting hubs in the Northeast, Southeast and Midwest. In addition, the commercial airports in South Carolina support flights by scheduled charter aircraft, including some that originate in foreign countries. Most of South Carolina's commercial service airports are used by air cargo carriers such as FedEx, UPS, and DHL. It is worth noting that a high percentage of total annual takeoffs and landings at all commercial airports is attributable to general aviation aircraft.

General Aviation Airports – General aviation is the largest segment of aviation in the U.S. General aviation aircraft range from high-powered, sophisticated business jets that can fly from South Carolina non-stop to destinations around the world, to small, single-engine planes flown for recreational use. As noted, even at South Carolina’s commercial service airports, the highest percentage of annual aircraft takeoffs and landings are performed by general aviation aircraft. South Carolina has 54 general aviation airports whose capabilities vary based on airport facilities. Many of South Carolina’s general aviation airports can serve corporate or business jets and most can serve smaller twin-engine aircraft that are often used by businesses.

Military Airfields – South Carolina is home to two Air Force Bases, Shaw AFB and Charleston AFB. It is worth noting that Charleston AFB is co-located with Charleston International Airport, making this airport a joint military/civilian use facility. South Carolina is also home to Beaufort Marine Naval Air Station and to McEntire Air National Guard Station. The economic benefits of these four military airfields are discussed in this report.

## **1.2 Economic Impacts of Aviation**

Through the aviation services they accommodate, airports in South Carolina support thousands of jobs and billions of dollars in annual economic activity. The largest employers in South Carolina use commercial service and general aviation airports to increase their efficiency. Employers throughout South Carolina rely on all airports to provide transportation for people, equipment and supplies. South Carolina’s general aviation and commercial service airports are also critical to the state’s thriving tourism industry. The four military airfields located in South Carolina also make significant annual economic contributions.

Airport Businesses/Tenants – Airports in South Carolina create economic impact in many ways; one of the most visible is through on-airport businesses or tenants. Examples of on-airport business include airlines, flight schools, agricultural sprayers and providers of aircraft maintenance. Restaurants, ground transportation providers, rental car companies, gift shops, and air cargo companies and freight forwarders are other examples. Local, state, and/or federal entities charged with the day-to-day operation and maintenance of an airport or the aviation system are also included in this category. For this study, military and civilian activities that are associated with the four military airfields were also evaluated.

Construction and Capital Improvements – Each year, private, local, state and federal investment helps to support improvement projects at civilian airports throughout the state. In addition, through the Department of Defense (DOD), annual investment is also made to maintain and improve the four military airfields. When a runway is extended or a taxiway built, South Carolina workers are employed. These same projects require the acquisition of supplies and other services which further stimulate local and the state’s economy. Construction projects are responsible for additional aviation related economic activity.

Visitors – Visitors who arrive in South Carolina via both the commercial service and the general aviation airports are responsible for spending and additional economic impacts. Each day, thousands of visitors arrive in South Carolina using one of the airports. Visitors may arrive on a commercial airline flight, a general aviation charter, or a privately owned general aviation aircraft. Once in South Carolina, these visitors spend money for hotels, meals, shopping, entertainment, ground transportation, and other items.

### **1.3 Study Approach and Scope**

This study not only addressed the economic impacts associated with South Carolina airports in terms of jobs and expenditures, it also assessed the qualitative benefits airports bestow on their communities and the state and local taxes collected that associated with aviation activity in the state.

Study Methodology – A methodology approved by the Federal Aviation Administration (FAA) was used to calculate the economic impacts associated with South Carolina’s civilian airport system and its four military airfields. Airport related economic impacts were identified for three categories: direct, indirect, and multiplier. Direct impacts result of the provision of aviation services and are associated with on-airport employers, business, and tenants. Indirect impacts are tied to spending by visitors who arrive in South Carolina through one of the public commercial or general aviation airports. As direct and indirect impacts circulate through the local, regional and statewide economies, additional multiplier impacts are created. The economic impacts created by the multiplier effect re-circulate until the benefits ultimately leak outside South Carolina or reach their primary source. For this report, multipliers specific to South Carolina were used to complete the economic impact analysis. Total economic impacts presented in this report, for the state, for each airport, and for each of the four military airfields are the sum of direct, indirect and multiplier impacts.

Tax Benefits From Aviation – The state and each South Carolina county also benefit from taxes levied on aviation and aviation activities. Since military activities and military airfields are generally exempt from state tax, the tax benefits discussion focuses on the commercial and general aviation airports. The cost to maintain and improve South Carolina’s commercial and general aviation airports is shared by the federal government, the state, local governments, and various private entities. Through the Airport and Airways Trust Fund, the Federal Aviation Administration provides grants to public commercial and general aviation airports in South Carolina for eligible maintenance and development projects.

Other Qualitative Benefits – Airports throughout South Carolina help to support and improve the quality of life for all residents, businesses, and visitors. Airports support many activities in the health, welfare, safety, and environmental services category. Information gathered as part of this study, describes how airports in South Carolina support recreational activities, serve as

gateways to many communities and tourist attractions, accommodate agricultural spraying, support air cargo and air freight shipments, help law enforcement, support the military and its operations, provide access in times of emergency, and support medical needs and the medical profession. In short, South Carolina airports touch and improve everyone's quality of life, even those individuals who never directly use one of the commercial or general aviation airports or the many services they support.

Business Reliance on Aviation and Airports – All types of businesses in South Carolina rely on aviation and commercial and general aviation airports for the efficiency they gain using this mode of travel and transportation. As part of this study, over 3,000 other businesses in South Carolina were surveyed to determine how they use aviation to support their business activities. This support may come from the use of scheduled commercial airline service, charter carrier flights, general aviation, air cargo, freight forwarders, or air express shipments.

#### **1.4 Report Outline**

Chapter 2 of this report identifies the airports studied, lists based aircraft and aircraft operations by airport, and details the economic impact methodology. Chapter 3 provides relevant background South Carolina demographic data. Chapter 4 presents the study's findings economic impact and qualitative benefits by airport, and Chapter 5 provides an analysis of tax revenue generated by the state's aviation network.

---

# **Chapter 2: Economic Impact Methodology**

---

## Chapter 2. Economic Impact Methodology

The economic impact of South Carolina's commercial and general aviation airports is calculated using a methodology that evolved over the past two decades and is nationally recognized as the standard for conducting economic impact studies of airports. The methodology is consistent with that advocated by the Federal Aviation Administration (FAA), and explicitly follows FAA-suggested procedures.<sup>1</sup> The study also uses an input/output model with multipliers specific to the State of South Carolina to derive total economic impacts attributable to the study airports.

The methodology is an "impact" approach rather than a "transportation benefits" approach. Therefore, study findings do not address the efficiencies, productivity or travel benefits from air travel. Rather, this effort measures the importance of the airports as an industry, in terms of the employment, earnings and tax revenue they generate, as well as locally produced goods and services which they consume.

All impacts are expressed in annual terms, with all impact calculations based on the latest year for which data are available (generally for the year 2005). All economic impacts are expressed in terms of jobs or dollars. The dollar impacts themselves comprise financial transactions that are of benefit to the residents and businesses of each airport's service area. Care is taken to avoid double counting of impacts. For example, when a fixed based operator's (FBO) lease payment or fuel flowage fee payment to an airport operator is included in the FBO's expenditure impact, it is not included in the airport operator's impact.

### 2.1 Airports Studied and Airport Activity

The study evaluates 60 public-use airports and four military airfields. Of the 60 public-use airports, six (Columbia Metropolitan, Charleston Air Force Base/International, Greenville-Spartanburg International, Florence Regional, Hilton Head and Myrtle Beach International) are designated as commercial service airports, while the other 54 are classified as general aviation facilities. The locations of the study airports and military airfields are presented in **Exhibit 2-1**. Based aircraft and total annual operations by airport are presented in **Exhibits 2-2** and **2-3**, respectively. A review of aviation operational data at the 60 public-use airports indicates that the top three airports in terms of based aircraft are Greenville Downtown (219), Rock Hill (109) and both Columbia-Owens (108) and Charleston International (108).

---

<sup>1</sup> "Estimating the Regional Economic Significance of Airports," Federal Aviation Administration, Washington, DC, 1992.

Exhibit 2-1  
**Study Airports and Military Airfields**  
South Carolina Aviation Economic Impact Study

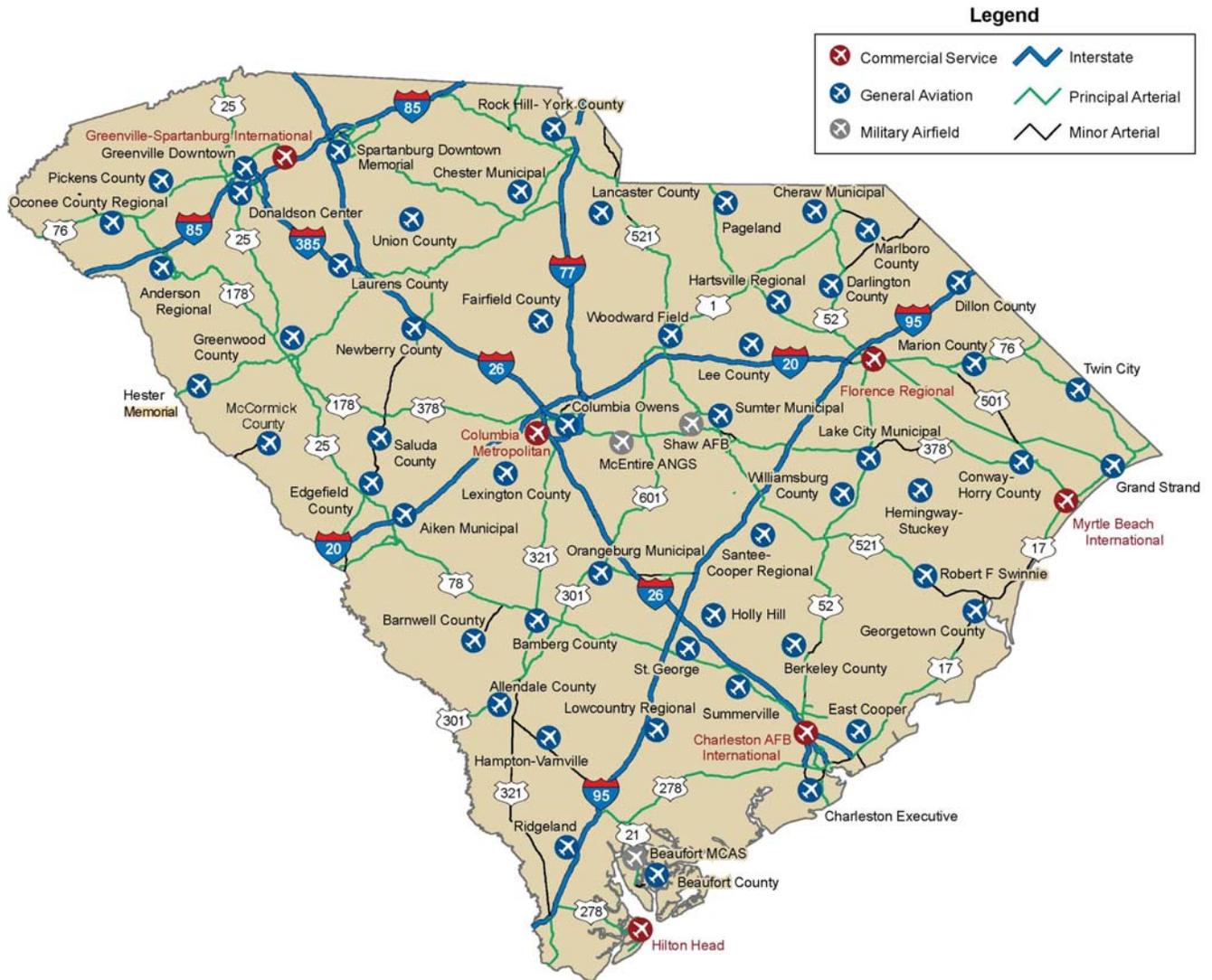


Exhibit 2-2  
**Based Aircraft by Airport**  
 South Carolina Aviation Economic Impact Study

| Airport by Type                 | Single Engine | Multi-Engine | Jet      | Heli.    | Military | Other <sup>1</sup> | Total Aircraft |
|---------------------------------|---------------|--------------|----------|----------|----------|--------------------|----------------|
| <b>Commercial Service</b>       |               |              |          |          |          |                    |                |
| Charleston International        | 56            | 27           | 1        | 0        | 24       | 0                  | 108            |
| Columbia Metropolitan           | 63            | 21           | 18       | 2        | 1        | 0                  | 105            |
| Florence Regional               | 30            | 13           | 1        | 1        | 0        | 0                  | 45             |
| Greenville-Spartanburg Int'l    | 8             | 5            | 8        | 0        | 0        | 0                  | 21             |
| Hilton Head                     | 55            | 23           | 8        | 0        | 0        | 1                  | 87             |
| Myrtle Beach Int'l              | <u>31</u>     | <u>13</u>    | <u>1</u> | <u>3</u> | <u>0</u> | <u>0</u>           | <u>48</u>      |
| Total Commercial                | 243           | 102          | 37       | 6        | 25       | 1                  | 414            |
| <b>General Aviation Service</b> |               |              |          |          |          |                    |                |
| Aiken Municipal                 | 44            | 11           | 4        | 0        | 0        | 0                  | 59             |
| Allendale County                | 9             | 0            | 0        | 0        | 0        | 0                  | 9              |
| Anderson Regional               | 61            | 10           | 1        | 5        | 0        | 0                  | 77             |
| Bamberg County                  | 4             | 1            | 0        | 0        | 0        | 0                  | 5              |
| Barnwell County                 | 18            | 2            | 1        | 0        | 0        | 2                  | 23             |
| Beaufort County                 | 33            | 2            | 0        | 0        | 0        | 0                  | 35             |
| Berkeley County                 | 40            | 2            | 0        | 1        | 0        | 0                  | 43             |
| Charleston Executive            | 55            | 10           | 0        | 1        | 0        | 0                  | 66             |
| Cheraw Municipal                | 26            | 1            | 1        | 0        | 0        | 0                  | 28             |
| Chester-Catawba Regional        | 26            | 2            | 0        | 0        | 0        | 0                  | 28             |
| Columbia-Owens-Downtown         | 85            | 22           | 0        | 1        | 0        | 0                  | 108            |
| Conway-Horry                    | 19            | 2            | 0        | 0        | 0        | 0                  | 21             |
| Lexington County (Pelion)       | 15            | 0            | 0        | 0        | 0        | 0                  | 15             |
| Darlington County               | 15            | 1            | 2        | 0        | 0        | 2                  | 20             |
| Dillon County                   | 3             | 0            | 0        | 0        | 0        | 0                  | 3              |
| Donaldson Center                | 68            | 12           | 1        | 1        | 0        | 0                  | 82             |
| East Cooper                     | 40            | 6            | 0        | 3        | 0        | 0                  | 49             |
| Edgefield County                | 14            | 0            | 0        | 0        | 0        | 12                 | 26             |
| Fairfield County                | 22            | 3            | 0        | 0        | 0        | 0                  | 25             |
| Georgetown County               | 16            | 3            | 0        | 0        | 0        | 0                  | 19             |
| Grand Strand                    | 45            | 5            | 2        | 1        | 0        | 0                  | 53             |
| Greenville Downtown             | 133           | 57           | 20       | 9        | 0        | 0                  | 219            |
| Greenwood County                | 48            | 12           | 0        | 1        | 0        | 0                  | 61             |
| Hampton-Varnville               | 4             | 0            | 0        | 0        | 0        | 1                  | 5              |
| Hartsville Regional             | 21            | 2            | 0        | 0        | 0        | 1                  | 24             |
| Hemingway-Stuckey               | 0             | 0            | 0        | 0        | 0        | 0                  | 0              |
| Hester Memorial                 | 0             | 0            | 0        | 0        | 0        | 0                  | 0              |
| Holly Hill                      | 7             | 0            | 0        | 0        | 0        | 0                  | 7              |

*Exhibit 2-2 (continued)*  
*Based Aircraft by Airport*  
*South Carolina Aviation Economic Impact Study*

| Airport by Type          | Single Engine | Multi-Engine | Jet       | Heli.     | Military  | Other <sup>1</sup> | Total Aircraft |
|--------------------------|---------------|--------------|-----------|-----------|-----------|--------------------|----------------|
| Lake City Municipal      | 1             | 0            | 0         | 0         | 0         | 0                  | 1              |
| Lancaster County         | 35            | 3            | 0         | 1         | 0         | 1                  | 40             |
| Laurens County           | 16            | 0            | 0         | 0         | 0         | 0                  | 16             |
| Lee County               | 1             | 0            | 0         | 0         | 0         | 0                  | 1              |
| Lowcountry Regional      | 11            | 1            | 1         | 0         | 0         | 0                  | 13             |
| Marion County            | 9             | 1            | 0         | 0         | 0         | 0                  | 10             |
| Marlboro County          | 10            | 0            | 0         | 0         | 0         | 0                  | 10             |
| McCormick County         | 1             | 0            | 0         | 0         | 0         | 0                  | 1              |
| Newberry County          | 20            | 0            | 0         | 1         | 0         | 1                  | 22             |
| Oconee County            | 61            | 5            | 2         | 2         | 0         | 3                  | 73             |
| Orangeburg Municipal     | 25            | 7            | 0         | 0         | 0         | 0                  | 32             |
| Pageland                 | 5             | 1            | 0         | 0         | 0         | 0                  | 6              |
| Pickens County           | 39            | 3            | 0         | 1         | 0         | 1                  | 44             |
| Ridgeland                | 45            | 3            | 0         | 0         | 0         | 8                  | 56             |
| Robert F. Swinnie        | 4             | 0            | 0         | 0         | 0         | 0                  | 4              |
| Rock Hill-York County    | 98            | 9            | 0         | 0         | 0         | 2                  | 109            |
| Saluda County            | 0             | 0            | 0         | 2         | 0         | 0                  | 2              |
| Santee Cooper Regional   | 12            | 2            | 0         | 0         | 0         | 5                  | 19             |
| Spartanburg Dwntrn. Mem. | 74            | 16           | 5         | 2         | 0         | 10                 | 107            |
| St. George               | 1             | 0            | 0         | 0         | 0         | 7                  | 8              |
| Summerville              | 47            | 7            | 0         | 2         | 0         | 1                  | 57             |
| Sumter                   | 40            | 16           | 0         | 0         | 0         | 0                  | 56             |
| Twin City                | 8             | 0            | 0         | 0         | 0         | 1                  | 9              |
| Union County             | 20            | 0            | 0         | 0         | 0         | 0                  | 20             |
| Williamsburg Regional    | 6             | 2            | 0         | 0         | 0         | 2                  | 10             |
| Woodward Field           | <u>35</u>     | <u>1</u>     | <u>2</u>  | <u>0</u>  | <u>0</u>  | <u>2</u>           | 40             |
| Gen. Aviation Summary    | 1,495         | 243          | 42        | 34        | 0         | 62                 | 1,876          |
| <b>Total</b>             | <b>1,738</b>  | <b>345</b>   | <b>79</b> | <b>40</b> | <b>25</b> | <b>63</b>          | <b>2,290</b>   |

Source: SC CAIRS database, FAA 5010, Various FAA Tower Counts and interviews

<sup>1</sup>Includes gliders and ultra-lights

Exhibit 2-3  
**Aircraft Operations by Airport**  
 South Carolina Aviation Economic Impact Study

| Airport by Type                 | General Aviation |              |               | Military     | Air Carrier   | Total         |
|---------------------------------|------------------|--------------|---------------|--------------|---------------|---------------|
|                                 | Local            | Air Taxi     | Itinerant     |              |               |               |
| <b>Commercial Service</b>       |                  |              |               |              |               |               |
| Charleston International        | 4,257            | 4,261        | 29,967        | 0            | 48,370        | 86,855        |
| Columbia Metropolitan           | 19,461           | 5,361        | 35,067        | 4,991        | 58,638        | 123,518       |
| Florence Regional               | 6,258            | 522          | 18,114        | 1,819        | 4,693         | 31,406        |
| Greenville-Spartanburg Int'l    | 727              | 4,602        | 11,430        | 1,776        | 48,936        | 67,471        |
| Hilton Head                     | 26,429           | 6,762        | 0             | 202          | 2,109         | 35,502        |
| Myrtle Beach Int'l              | <u>5,916</u>     | <u>1,789</u> | <u>23,043</u> | <u>3,520</u> | <u>30,404</u> | <u>64,672</u> |
| Total Commercial                | 63,048           | 23,297       | 117,621       | 12,308       | 193,150       | 409,424       |
| <b>General Aviation Service</b> |                  |              |               |              |               |               |
| Aiken Municipal                 | 38,000           | 2,500        | 14,000        | 500          | 0             | 55,000        |
| Allendale County                | 7,000            | 450          | 4,500         | 200          | 0             | 12,150        |
| Anderson Regional               | 20,000           | 4,500        | 28,600        | 400          | 0             | 53,500        |
| Bamberg County                  | 2,250            | 0            | 2,150         | 0            | 0             | 4,400         |
| Barnwell County                 | 7,800            | 0            | 8,000         | 500          | 0             | 16,300        |
| Beaufort County                 | 17,000           | 1,000        | 10,000        | 0            | 0             | 28,000        |
| Berkeley County                 | 25,200           | 800          | 11,800        | 200          | 0             | 38,000        |
| Charleston Executive            | 31,000           | 1,900        | 13,000        | 3,600        | 0             | 49,500        |
| Cheraw Municipal                | 14,000           | 0            | 6,500         | 200          | 0             | 20,700        |
| Chester-Catawba Regional        | 8,000            | 0            | 3,000         | 0            | 0             | 11,000        |
| Columbia-Owens-Downtown         | 29,500           | 3,500        | 22,000        | 1,000        | 0             | 56,000        |
| Conway-Horry                    | 68,740           | 150          | 3,343         | 125          | 0             | 72,358        |
| Lexington County (Pelion)       | 8,000            | 0            | 4,800         | 200          | 0             | 13,000        |
| Darlington County               | 7,800            | 700          | 4,900         | 100          | 0             | 13,500        |
| Dillon County                   | 3,000            | 0            | 2,000         | 100          | 0             | 5,100         |
| Donaldson Center                | 23,000           | 3,000        | 33,000        | 3,500        | 0             | 62,500        |
| East Cooper                     | 17,000           | 900          | 7,000         | 100          | 0             | 25,000        |
| Edgefield County                | 10,000           | 0            | 500           | 0            | 0             | 10,500        |
| Fairfield County                | 8,000            | 500          | 4,600         | 300          | 0             | 13,400        |
| Georgetown County               | 10,000           | 600          | 11,300        | 100          | 0             | 22,000        |
| Grand Strand                    | 11,500           | 1,500        | 20,000        | 0            | 0             | 33,000        |
| Greenville Downtown             | 22,759           | 14,899       | 34,650        | 684          | 0             | 72,992        |
| Greenwood County                | 25,000           | 1,000        | 13,900        | 100          | 0             | 40,000        |
| Hampton-Varnville               | 750              | 0            | 1,100         | 0            | 0             | 1,850         |
| Hartsville Regional             | 3,000            | 0            | 2,700         | 300          | 0             | 6,000         |
| Hemingway-Stuckey               | 250              | 0            | 50            | 0            | 0             | 300           |
| Hester Memorial                 | 200              | 0            | 1,200         | 0            | 0             | 1,400         |
| Holly Hill                      | 1,200            | 0            | 500           | 0            | 0             | 1,700         |

*Exhibit 2-3 (continued)*  
*Aircraft Operations by Airport (Continued)*  
*South Carolina Aviation Economic Impact Study*

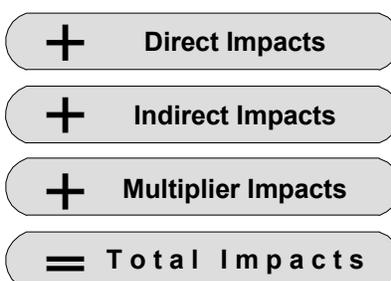
| Airport by Type         | General Aviation |               |                | Military      | Air Carrier    | Total            |
|-------------------------|------------------|---------------|----------------|---------------|----------------|------------------|
|                         | Local            | Air Taxi      | Itinerant      |               |                |                  |
| Lake City Municipal     | 1,000            | 0             | 1,000          | 0             | 0              | 2,000            |
| Lancaster County        | 14,350           | 350           | 10,000         | 300           | 0              | 25,000           |
| Laurens County          | 8,700            | 150           | 1,000          | 150           | 0              | 10,000           |
| Lee County              | 750              | 0             | 1,100          | 0             | 0              | 1,850            |
| Lowcountry Regional     | 12,000           | 0             | 15,500         | 500           | 0              | 28,000           |
| Marion County           | 2,000            | 0             | 4,300          | 150           | 0              | 6,450            |
| Marlboro County         | 1,200            | 60            | 2,500          | 0             | 0              | 3,760            |
| McCormick County        | 450              | 0             | 900            | 50            | 0              | 1,400            |
| Newberry County         | 8,500            | 0             | 7,000          | 100           | 0              | 15,600           |
| Oconee County           | 62,000           | 1,500         | 6,350          | 150           | 0              | 70,000           |
| Orangeburg Municipal    | 9,200            | 170           | 13,000         | 50            | 0              | 22,420           |
| Pageland                | 1,300            | 0             | 1,000          | 0             | 0              | 2,300            |
| Pickens County          | 22,800           | 1,500         | 40,500         | 150           | 0              | 64,950           |
| Ridgeland               | 12,000           | 0             | 3,000          | 250           | 0              | 15,250           |
| Robert F. Swinnie       | 500              | 0             | 500            | 0             | 0              | 1,000            |
| Rock Hill-York County   | 27,500           | 375           | 12,050         | 100           | 0              | 40,025           |
| Saluda County           | 5,000            | 0             | 3,600          | 0             | 0              | 8,600            |
| Santee Cooper Regional  | 17,400           | 0             | 13,500         | 100           | 0              | 31,000           |
| Spartanburg Dwntn. Mem. | 24,200           | 5,500         | 37,000         | 150           | 0              | 66,850           |
| St. George              | 3,000            | 0             | 2,500          | 0             | 0              | 5,500            |
| Summerville             | 17,500           | 2,500         | 10,800         | 200           | 0              | 31,000           |
| Sumter                  | 22,000           | 700           | 16,000         | 300           | 0              | 39,000           |
| Twin City               | 1,200            | 0             | 2,200          | 0             | 0              | 3,400            |
| Union County            | 2,500            | 0             | 4,000          | 0             | 0              | 6,500            |
| Williamsburg Regional   | 5,050            | 0             | 900            | 50            | 0              | 6,000            |
| Woodward Field          | <u>20,000</u>    | <u>450</u>    | <u>21,500</u>  | <u>350</u>    | <u>0</u>       | <u>42,300</u>    |
| Gen. Aviation Summary   | 722,049          | 51,154        | 500,793        | 15,309        | 0              | 1,289,305        |
| <b>Total</b>            | <b>785,097</b>   | <b>74,451</b> | <b>618,414</b> | <b>27,617</b> | <b>193,150</b> | <b>1,698,729</b> |

Source: SC CAIRS database, FAA 5010, Various FAA Tower Counts and interviews

## 2.2 Types of Economic Impacts

Airport economic impacts are assigned to one of these categories: Direct impacts, Indirect impacts, and Multiplier impacts. Combined, the three impact types yield the total economic impacts of an airport on its regional economy, as shown in **Exhibit 2-4**, and detailed below.

Exhibit 2-4  
**Economic Impact Types**  
South Carolina Aviation Economic Impact Study



### 2.2.1 Determining Direct Impacts

Direct impacts include expenditures at or near South Carolina's sixty-one public-use airports by firms involved in the provision of aviation services. Those who provide aviation services include the airlines, FBOs, aviation component manufacturing firms, flight and ground schools, the control tower, etc. The direct impacts associated with the provision of aviation services consist of three general classifications:

- **Direct Payroll** – The annual gross payroll for any employed person at an airport whose job is attributable to a tenant. When possible, these figures also include payroll taxes, unemployment insurance and other related payroll expenses.
- **Capital Expenditures** – Investment at or near an airport by either the airport operator or by various public and private tenants. Capital expenditures primarily include the costs associated with buildings, structures, runway improvements, terminals, etc. Since capital expenditures fluctuate significantly by year, a five-year average is used in this study when possible.
- **Operating Expenses** – The annual costs of operation of the airport operator, businesses, tenants and agencies at an airport. These costs include utilities, repair, maintenance, supplies, legal and professional services, etc. Operation expenses made by one entity at an airport to another airport entity are excluded. For example, tenant rent, leases, fees,

etc. made to the airport operator are excluded, because these operator revenues are paid out to operator employees and other operator expenses. To include such expenditures under both the tenant and the airport operator would be to “double-count” the expenditures.

Calculation of direct impacts comprises the collection of background information from all airport operators regarding airline passengers, capital expenditures, aircraft operations, etc. Airport tenant surveys were developed, which sought information on employment, operations, revenue, and expenditures. A copy of the survey is presented in **Appendix B**. Care was taken to recognize expenditures that “leak” to places outside of the impact area, e.g., aircraft parts, and equipment expenditures in cases where the source is obviously external to the state. Survey responses were evaluated to check on reasonableness of results, e.g., payroll per employed person, etc. In each case, care was taken to avoid “double counting” of impacts. Most tenants surveyed responded to at least employment data.

### **2.2.2 Determining Indirect Impacts**

Indirect impacts include expenditures by airport users made in the impact area, such as visitors to the region that arrive via the airport and by travel agents located throughout the state. These economic impacts comprise three categories:

- Air Carrier Visitor Expenditures – Money spent in the regional economy by commercial air passengers.
- General Aviation Visitor Expenditures - Money spent in the regional economy by general aviation passengers and pilots.
- Other Related Business Expenditures – Expenditures by other dependent businesses namely travel agencies.

All commercial and general aviation visitor expenditures were calculated in a manner consistent with the methodology advocated by the Aircraft Owners and Pilot Association (AOPA). That methodology estimates the number of visitors arriving at the airport and multiplies the number of visitors by an estimated average expenditure rate per visitor. Visitors are defined as persons who reside in places external to South Carolina who arrive via an airport. The average expenditure per visitor (e.g., lodging, food, retail etc.), persons per party and average stay, were compiled from three principal sources:

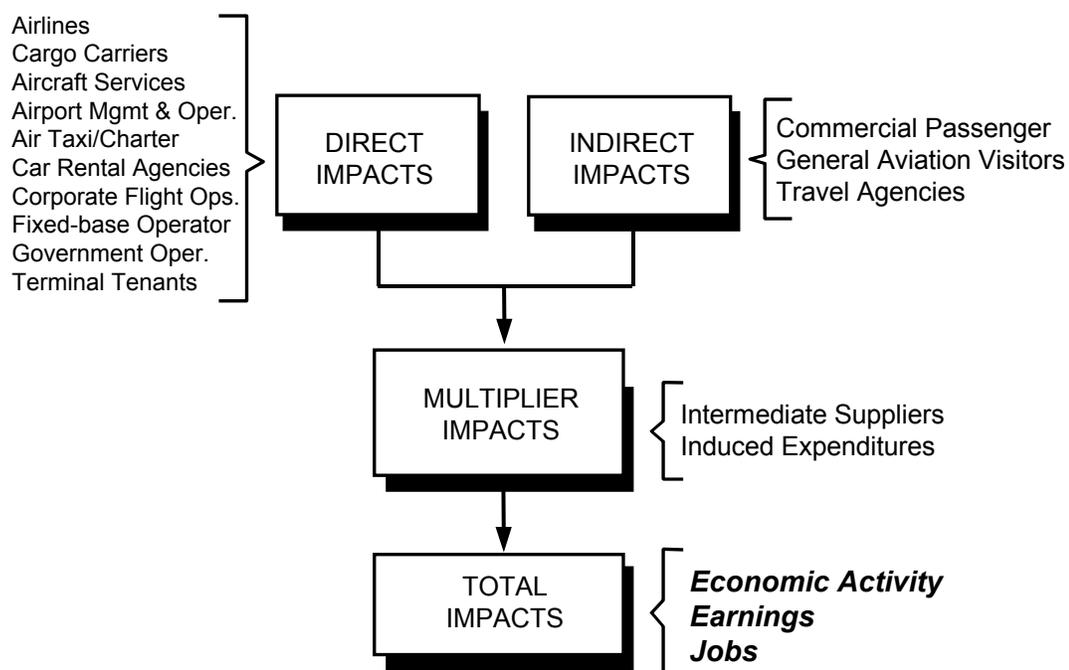
- Departing Air Passenger Survey – Developed and administered by the Wilbur Smith Associates;
- Transient GA Pilot Survey – Developed by Wilbur Smith Associate and administered by the FBOs;

- Databases – Wilbur Smith Associate and other commercial databases, such as the U.S. Department of Transportation OD1A (origin-destination) database

### 2.2.3 Determining Multiplier Impacts

Direct and indirect economic impacts represent increases in final demand in the impact areas. Such final demand increases, however, do not represent the total economic impact value attributable to South Carolina’s airports. Rather, a secondary or multiplier impact also occurs. The components of these three impact types are shown in **Exhibit 2-5**. The secondary multiplier effect is measured using the IMPLAN<sup>2</sup> multiplier coefficients for impact areas specific to South Carolina, as explained below.

Exhibit 2-5  
**Components of Economic Impact Types**  
 South Carolina Aviation Economic Impact Study



In effect, the multiplier is used to trace money as it flows through the state’s economy. The longer that the money stays in the state, the better off the state is and the higher the multiplier.

<sup>2</sup> The Minnesota Implan Group’s Regional Input Output Modeling System (IMPLAN)

The multiplier indicates that, as the money is used over and over again, many people and businesses benefit, even if they do not use an airport.

For example, if an airline employee earns \$100 at the airport, and uses it to buy \$100 worth of groceries, he is better off by \$100 because he has \$100 worth of groceries, and the local grocer is better off because he has the \$100. The grocer then pays his employees, the delivery truck operator, etc. all of whom then are slightly better off due to the airport. The multiplier traces this flow of funds until the money ultimately leaks to places outside the impact area, or reaches the primary source.

Secondary Multiplier Model – To estimate the multipliers, The Minnesota Implan Group’s Regional Input-Output Modeling System (IMPLAN) is used. Final demand expenditures (i.e., primary direct and indirect impact values) are categorized into industrial codes and applied to a variety of different multiplier classifications, depending on the nature of the final demand activities. The size of the multipliers varies depending on the study area’s size (population) and economic base. Typically, the larger and more developed the impact area, the longer the money re-circulates in the regional economy, resulting in a higher multiplier. For this study, multipliers for the State of South Carolina are used.

### **2.3 Measures of Economic Impact**

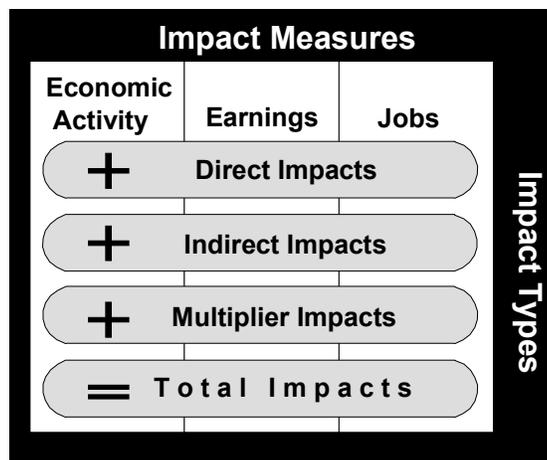
The economic impact of South Carolina’s airports are measured in three ways: Economic Activity (Output), Earnings (Payroll), and Jobs (Employment). The total impact measures include the direct as well as the indirect and multiplier impacts as derived using South Carolina IMPLAN multipliers. All three measures of economic impact are useful. However, the monetary measures for Economic Activity and Earnings should not be added together, as explained below.

- Economic Activity (Output) – The value of the aviation primary expenditures (aviation or airport service), plus the secondary multiplier effect (the sum of all of the intermediate goods and services needed to provide aviation services, plus the induced impacts of increased household consumption). Total economic activity (often referred to as “output”) equals the sum of intermediate demand, consumption demand, government demand, investment demand, and net export demand. Because Economic Activity includes intermediate demand, it should not be compared to Gross State Product.
- Earnings – Equates to the direct and indirect wages and salaries, other labor income and proprietors’ income paid to all employed persons that deliver final demand output and services. Earnings Impacts are part of Economic Activity, so they should not be added to the Economic Activity impact.
- Jobs – Include the number of employees who provide aviation service or manufacture aircraft, plus the aviation-oriented share of those that are employed in sectors that support

the air passenger (hotels, restaurants, etc.), plus those employed in the industries included in the multiplier effect impacts. Jobs are expressed in terms of annual “full-time-equivalents” (FTEs), where two part-time jobs are represented as one full-time job.

These three impact "measures" and the three impact "types" described earlier are inter-related as shown in **Exhibit 2-6**. The economic activity, earnings, and job impact measures all have associated direct, indirect and multiplier impact types.

Exhibit 2-6  
**Economic Impact Types and Measures**  
 South Carolina Aviation Economic Impact Study



The economic impact estimates for South Carolina airports reflect these three impact types and are reported in these three measures. The IMPLAN model also provides information used to calculate the resulting state income taxes associated with the total earnings and jobs impact estimates.

---

# **Chapter 3: Demographic & Economic Trends**

---

## Chapter 3. Demographic & Economic Trends

For decades, South Carolina's robust agricultural, manufacturing and tourism sectors drove the economic growth. The state's relatively low tax burden and largely non-unionized labor force fostered a business environment conducive to manufacturing. However, in the past two decades a fundamental shift in the national economy occurred from one based primarily on its manufacturing, to one now dominated by the services sector. Further, the liberalization of international trade and increased global competition detrimentally affected the state's textile industry, as well as a host of other traditional manufacturing industries. Though the state is currently experiencing a renaissance in its manufacturing sector, largely due to Upstate manufacturers, the service sector now drives the state's economy.

Today, South Carolina's services sector is heavily dependent on transportation infrastructure to sustain current growth trends, while setting the stage for future economic expansion. The provision of safe, efficient air transport enables the state's service sectors, as well as all other economic sectors, to compete economically in an increasingly challenging global environment. This section summarizes recent South Carolina demographic and economic trends in population, employment, and household income. This data provides the context from which to view the airport economic impact findings presented in Chapter 4.

### 3.1 Population

According to the 2000 national census data, South Carolina ranked 26<sup>th</sup> among the states with a total population of 4.0 million. This represents a 15.1% increase in statewide population since 1990. Despite rapid urbanization in Columbia, Charleston and Greenville, the state remains predominately rural and sparsely populated with a population density of 54 persons per square mile. Though a number of the state's counties experienced declines in population, the vast majority of the state experienced an upswing in population between 1990 and 2000. Population growth trends are higher for most of the state's 46 counties, as shown in **Exhibit 3-1**.

### 3.2 Employment

The estimated total employment for the state of South Carolina in 2005 was 2.4 million people. **Exhibit 3-2** identifies employment levels by sector and average annual earnings per employee for 13 major sectors. The sector exhibiting the largest number of persons employed is the state's services sector, with nearly 648,000 employees. The sector showing the highest annual earnings is the Federal Civilian Government (\$58,631); while the sector with the lowest average earnings is the state's agricultural sector (\$6,482). On average, during 2005, the typical South Carolina employee earned approximately \$33,735 annually.

**Exhibit 3-1**  
**Population Trends by County – 1990- 2005**  
 South Carolina Aviation Economic Impact Study

| County       | 1990    | 2000    | 2005    | Change ('90-'05) | County       | 1990           | 2000           | 2005           | Change ('90-'05) |
|--------------|---------|---------|---------|------------------|--------------|----------------|----------------|----------------|------------------|
| Abbeville    | 23,960  | 26,220  | 26,650  | 11%              | Greenwood    | 59,650         | 66,330         | 68,260         | 14%              |
| Aiken        | 122,050 | 142,780 | 150,340 | 23%              | Hampton      | 18,260         | 21,360         | 21,730         | 19%              |
| Allendale    | 11,750  | 11,190  | 10,950  | -7%              | Horry        | 145,180        | 198,030        | 221,500        | 53%              |
| Anderson     | 145,540 | 166,320 | 175,320 | 20%              | Jasper       | 15,530         | 20,730         | 21,640         | 39%              |
| Bamberg      | 16,880  | 16,620  | 16,030  | -5%              | Kershaw      | 43,640         | 52,850         | 55,300         | 27%              |
| Barnwell     | 20,420  | 23,470  | 23,670  | 16%              | Lancaster    | 54,700         | 61,390         | 63,650         | 16%              |
| Beaufort     | 87,220  | 121,980 | 139,910 | 60%              | Laurens      | 58,420         | 69,660         | 71,000         | 22%              |
| Berkeley     | 129,370 | 142,990 | 151,120 | 17%              | Lee          | 18,450         | 20,140         | 20,420         | 11%              |
| Calhoun      | 12,790  | 15,240  | 15,610  | 22%              | Lexington    | 168,910        | 216,860        | 236,960        | 40%              |
| Charleston   | 295,630 | 310,670 | 330,540 | 12%              | Marion       | 33,930         | 35,470         | 35,140         | 4%               |
| Cherokee     | 44,660  | 52,670  | 54,480  | 22%              | Marlboro     | 29,730         | 28,810         | 28,460         | -4%              |
| Chester      | 32,200  | 34,130  | 34,080  | 6%               | McCormick    | 8,880          | 9,990          | 10,500         | 18%              |
| Chesterfield | 38,670  | 42,910  | 43,780  | 13%              | Newberry     | 33,230         | 36,130         | 37,010         | 11%              |
| Clarendon    | 28,510  | 32,550  | 33,230  | 17%              | Oconee       | 57,700         | 66,420         | 69,380         | 20%              |
| Colleton     | 34,520  | 38,350  | 39,720  | 15%              | Orangeburg   | 85,050         | 91,500         | 91,630         | 8%               |
| Darlington   | 62,020  | 67,480  | 68,450  | 10%              | Pickens      | 94,470         | 111,050        | 115,750        | 23%              |
| Dillon       | 29,120  | 30,710  | 31,050  | 7%               | Richland     | 287,490        | 321,360        | 337,490        | 17%              |
| Dorchester   | 83,850  | 96,710  | 107,150 | 28%              | Saluda       | 16,470         | 19,180         | 19,300         | 17%              |
| Edgefield    | 18,520  | 24,600  | 24,960  | 35%              | Spartanburg  | 227,580        | 254,400        | 265,050        | 16%              |
| Fairfield    | 22,330  | 23,540  | 24,020  | 8%               | Sumter       | 101,270        | 104,740        | 106,650        | 5%               |
| Florence     | 114,690 | 125,790 | 130,060 | 13%              | Union        | 30,310         | 29,870         | 29,200         | -4%              |
| Georgetown   | 46,650  | 56,100  | 60,370  | 29%              | Williamsburg | 36,770         | 37,150         | 35,960         | -2%              |
| Greenville   | 321,860 | 381,030 | 403,860 | 25%              | York         | <u>132,350</u> | <u>165,700</u> | <u>183,790</u> | 39%              |
|              |         |         |         |                  | State Totals | 3,501,160      | 4,023,130      | 4,241,120      | 21%              |

Source: Woods & Poole

**Exhibit 3-2**  
**Employment and Average Earnings – 2005**  
 South Carolina Aviation Economic Impact Study

| Industry Sector                                   | Employment       | Average Earnings |
|---|------------------|------------------|
| Farm  | 45,650           | \$6,482          |
| Agricultural Services, Other                      | 27,470           | \$18,503         |
| Mining  | 2,900            | \$44,586         |
| Construction                                      | 157,920          | \$31,999         |
| Manufacturing                                     | 311,520          | \$45,576         |
| Transportation, Communications & Public Utilities | 118,960          | \$40,671         |
| Wholesale Trade                                   | 89,290           | \$42,536         |
| Retail Trade                                      | 417,940          | \$17,275         |
| Finance, Insurance & Real Estate Services         | 166,930          | \$29,194         |
|   | 647,510          | \$26,961         |
| Federal Civilian Government                       | 31,190           | \$58,631         |
| Federal Military Government                       | 54,450           | \$40,700         |
| State and Local Government                        | <u>306,460</u>   | <u>\$35,443</u>  |
| <b>State Totals/State Average</b>                 | <b>2,378,190</b> | <b>\$33,735</b>  |

Source: Woods & Poole

### 3.3 Unemployment

According to the Department of Labor's March 2005 unemployment estimates, South Carolina has the nation's fourth highest rate of unemployment at 6.8% surpassed only by the District of Columbia, Mississippi and Michigan (**Exhibit 3-3**).

Exhibit 3-3  
**National Unemployment Rates – 2005**  
 South Carolina Aviation Economic Impact Study

| State         | Rate | State                   | Rate        |
|---------------|------|-------------------------|-------------|
| Hawaii        | 2.8% | Georgia                 | 5.0%        |
| Wyoming       | 3.1% | Colorado                | 5.1%        |
| North Dakota  | 3.3% | Iowa                    | 5.1%        |
| Virginia      | 3.3% | Arkansas                | 5.2%        |
| Vermont       | 3.4% | North Carolina          | 5.2%        |
| New Hampshire | 3.7% | Washington              | 5.2%        |
| South Dakota  | 3.7% | West Virginia           | 5.2%        |
| Delaware      | 3.9% | Kentucky                | 5.3%        |
| Nevada        | 3.9% | Louisiana               | 5.3%        |
| Nebraska      | 4.0% | California              | 5.4%        |
| Idaho         | 4.2% | Kansas                  | 5.4%        |
| Maryland      | 4.3% | Pennsylvania            | 5.4%        |
| New Jersey    | 4.3% | Illinois                | 5.6%        |
| Florida       | 4.4% | Indiana                 | 5.6%        |
| Minnesota     | 4.4% | Texas                   | 5.6%        |
| Oklahoma      | 4.4% | Missouri                | 5.7%        |
| Rhode Island  | 4.5% | New Mexico              | 5.9%        |
| Montana       | 4.6% | Tennessee               | 5.9%        |
| New York      | 4.6% | Oregon                  | 6.2%        |
| Wisconsin     | 4.6% | Ohio                    | 6.3%        |
| Alabama       | 4.7% | Alaska                  | 6.7%        |
| Arizona       | 4.7% | South Carolina          | 6.8%        |
| Maine         | 4.7% | Michigan                | 6.9%        |
| Utah          | 4.8% | Mississippi             | 7.0%        |
| Connecticut   | 4.9% | District of Columbia    | 7.8%        |
| Massachusetts | 4.9% | <i>National Average</i> | <i>5.0%</i> |

Source: United States Department of Labor

### 3.4 Household Income

The mean household income and ranking by county for the state of South Carolina is shown in **Exhibit 3-4**. Note that these figures include all income sources such as wages and salaries, as well as proprietors' income, rental income, dividend income, personal interest income and transfer payments. The county with the highest mean income during 2005 was Beaufort County

with a median household income of \$94,958. The next four ranking counties were Lexington (\$80,284), Charleston (\$80,092), Greenville (\$79,182) and Richland (\$76,057). Other top counties for average household income are in South Carolina’s major urban areas.

Exhibit 3-4  
**Household Income by County –2005**  
 South Carolina Aviation Economic Impact Study

| County       | Household Income | Rank | County               | Household Income | Rank |
|--------------|------------------|------|----------------------|------------------|------|
| Abbeville    | \$61,636         | 21   | Greenwood            | \$63,104         | 19   |
| Aiken        | 74,181           | 6    | Hampton              | 55,245           | 36   |
| Allendale    | 49,253           | 45   | Horry                | 64,123           | 18   |
| Anderson     | 67,027           | 13   | Jasper               | 55,683           | 34   |
| Bamberg      | 53,012           | 40   | Kershaw              | 70,604           | 10   |
| Barnwell     | 60,319           | 24   | Lancaster            | 59,647           | 26   |
| Beaufort     | 94,958           | 1    | Laurens              | 58,900           | 27   |
| Berkeley     | 66,198           | 15   | Lee                  | 52,962           | 41   |
| Calhoun      | 65,749           | 16   | Lexington            | 80,284           | 2    |
| Charleston   | 80,092           | 3    | Marion               | 51,759           | 43   |
| Cherokee     | 56,470           | 32   | Marlboro             | 52,156           | 42   |
| Chester      | 57,194           | 30   | McCormick            | 48,031           | 46   |
| Chesterfield | 54,865           | 38   | Newberry             | 55,572           | 35   |
| Clarendon    | 54,268           | 39   | Oconee               | 64,699           | 17   |
| Colleton     | 57,236           | 29   | Orangeburg           | 60,159           | 25   |
| Darlington   | 66,485           | 14   | Pickens              | 61,427           | 22   |
| Dillon       | 55,066           | 37   | Richland             | 76,057           | 5    |
| Dorchester   | 68,377           | 12   | Saluda               | 61,001           | 23   |
| Edgefield    | 56,665           | 31   | Spartanburg          | 68,827           | 11   |
| Fairfield    | 58,188           | 28   | Sumter               | 62,996           | 20   |
| Florence     | 73,039           | 8    | Union                | 56,181           | 33   |
| Georgetown   | 70,962           | 9    | Williamsburg         | 49,522           | 44   |
| Greenville   | 79,182           | 4    | York                 | 73,076           | 7    |
|              |                  |      | <b>State Average</b> | <b>\$62,662</b>  |      |

Source: Woods & Poole; /1 Household income consist of wage and salaries, proprietor’s income, rental income, dividend income, personal interest income, and transfer payments

### 3.5 Gross State Product

Service-oriented sectors such as finance and insurance, utilities, professional and technical services and information experienced dramatic increases in the past few years (35%, 34% and 28%, respectively), as shown in **Exhibit 3-5**. Growth in these and a number of other service-oriented sectors outpaced the total economy’s expansion (20%), while the state’s historical economic strengths (agriculture and manufacturing) grew relatively little. As detailed in Section

4.6 of this report, these service industries rely on commercial and general aviation. Given this connection between the services sector and aviation, and the continued growth in the services sector, a vibrant aviation system is essential to support of the State’s future growth.

Exhibit 3-5  
**Gross State Product – 2000-2004**  
 South Carolina Aviation Economic Impact Study  
 (Millions of Current Dollars)

| Industry                            | 2000          | 2001          | 2002           | 2003           | 2004           | Change<br>(2000-2004) |
|-------------------------------------|---------------|---------------|----------------|----------------|----------------|-----------------------|
| Agriculture                         | 1,080         | 1,155         | 832            | 1,206          | 1,198          | 11%                   |
| Mining                              | 175           | 150           | 153            | 157            | 158            | -10%                  |
| Utilities                           | 2,935         | 3,393         | 3,224          | 3,575          | 3,944          | 34%                   |
| Construction                        | 6,303         | 6,614         | 6,768          | 7,184          | 7,670          | 22%                   |
| Manufacturing                       | 23,487        | 23,927        | 24,237         | 24,822         | 26,265         | 12%                   |
| Wholesale trade                     | 6,133         | 6,381         | 6,713          | 6,979          | 7,643          | 25%                   |
| Retail trade                        | 9,245         | 9,402         | 9,942          | 10,416         | 10,903         | 18%                   |
| Transportation and warehousing      | 2,812         | 2,811         | 2,897          | 3,011          | 3,170          | 13%                   |
| Information                         | 2,863         | 3,031         | 3,077          | 3,272          | 3,608          | 26%                   |
| Finance and insurance               | 4,933         | 5,063         | 5,812          | 6,228          | 6,665          | 35%                   |
| Real estate, rental, and leasing    | 12,411        | 13,624        | 14,125         | 14,351         | 15,185         | 22%                   |
| Professional and technical services | 4,550         | 5,056         | 5,262          | 5,501          | 5,830          | 28%                   |
| Government                          | 17,451        | 17,995        | 18,998         | 19,872         | 21,094         | 21%                   |
| <b>State Totals</b>                 | <b>94,378</b> | <b>98,602</b> | <b>102,040</b> | <b>106,574</b> | <b>113,333</b> | <b>20%</b>            |

Source: Bureau of Economic Analysis

The data provided in this chapter provides the context with which to interpret the economic impacts derived from the state’s airport network. Precise quantification of the state, local and regional economic benefits attributable to aviation should paint a clear picture of the role aviation plays in South Carolina’s future economic development.

---

**Chapter 4:  
Economic Impacts of Aviation in  
South Carolina**

---

## Chapter 4. Economic Impacts of Aviation in South Carolina

Detailed analysis of South Carolina's airport network was used to identify the annual economic impacts of airport operations, visitors, industrial, commercial, government and multiplier impacts. Statewide, South Carolina's public-use airports and military airfields generate an annual impact of \$4.34 billion in economic activity, of which \$1.95 billion is paid in earnings to 65,533 jobs. These annual economic impacts are detailed by aviation activity (civil and military) and impact type (output, earnings and jobs) in **Exhibit 4-1**.

Exhibit 4-1  
**Economic Impact Summary**  
 South Carolina Aviation Economic Impact Study

| Airport Type          | Economic Activity (Output) | Earnings             | Jobs          |
|-----------------------|----------------------------|----------------------|---------------|
| <b>Civil Aviation</b> |                            |                      |               |
| Commercial            | \$2,524,434,300            | \$1,024,575,800      | 40,871        |
| General Aviation      | <u>417,352,600</u>         | <u>178,011,500</u>   | <u>5,167</u>  |
| Total Civil           | \$2,941,786,900            | \$1,202,587,300      | 46,038        |
| <b>Military</b>       | <u>\$1,401,678,600</u>     | <u>\$745,637,700</u> | <u>19,495</u> |
| <b>Total</b>          | \$4,343,465,500            | \$1,948,225,000      | 65,533        |

These impacts reflect the direct provision of aviation services, the indirect use of aviation services, and the multiplier effect of supplier and induced expenditures in the state's economy. Of these total \$4.34 billion in expenditure impacts, approximately \$1.26 billion (29%) occur at the airports and airfields, another \$1.26 (29%) billion arise from off-airport visitor expenditures, and an additional \$1.82 (42%) billion arises through state multiplier effects. These impacts are detailed below.

### 4.1 Direct Impacts

Direct aviation related impacts associated with the hundreds of firms and agencies located at and around South Carolina's commercial and general aviation airports and military airfields generated \$1.26 billion in expenditures. The largest share (61%) of the expenditures is paid in the form of earnings, \$772.4 million, to 19,515 FTE jobs<sup>3</sup>. Capital expenses of \$74.5 million comprise 6% of total expenditures, and operations expenses of \$411.4 million comprise 33% of the total. The direct job and expenditure impacts presented in **Exhibit 4-2** are discussed below.

<sup>3</sup> Two part-time jobs equal one full-time equivalent (FTE) job

Exhibit 4-2  
**Direct Economic Impacts by Airport**  
 South Carolina Aviation Economic Impact Study

| Airport by Type                 | FTE<br>Jobs | Expenditures      |                  |                   |                   |
|---------------------------------|-------------|-------------------|------------------|-------------------|-------------------|
|                                 |             | Payroll           | Capital          | Operating         | Total             |
| <b>Commercial Service</b>       |             |                   |                  |                   |                   |
| Charleston International        | 836         | \$30,417,300      | \$8,437,700      | \$33,662,500      | \$72,517,500      |
| Columbia Metropolitan           | 1,526       | 44,252,700        | 12,970,100       | 28,448,000        | 85,670,800        |
| Florence Regional               | 135         | 5,314,300         | 4,731,100        | 5,683,700         | 15,729,100        |
| Greenville-Spartanburg Int'l    | 813         | 31,718,700        | 7,520,800        | 33,572,400        | 72,811,900        |
| Hilton Head                     | 93          | 3,066,800         | 2,425,000        | 1,665,000         | 7,156,800         |
| Myrtle Beach Int'l              | 690         | <u>22,157,800</u> | <u>8,300,200</u> | <u>18,480,900</u> | <u>48,938,900</u> |
| Total Commercial                | 4,093       | \$136,927,600     | \$44,384,900     | \$121,512,500     | \$302,825,000     |
| <b>General Aviation Service</b> |             |                   |                  |                   |                   |
| Aiken Municipal                 | 12          | \$295,000         | \$628,300        | \$934,700         | \$1,858,000       |
| Allendale County                | 3           | 65,500            | 159,100          | 69,000            | 293,600           |
| Anderson Regional               | 55          | 2,164,500         | 1,530,400        | 1,724,000         | 5,418,900         |
| Bamberg County                  | 0           | 0                 | 46,100           | 11,000            | 57,100            |
| Barnwell County                 | 3           | 59,800            | 174,400          | 778,400           | 1,012,600         |
| Beaufort County                 | 4           | 70,000            | 400,000          | 313,300           | 783,300           |
| Berkeley County                 | 4           | 156,000           | 1,461,000        | 165,000           | 1,782,000         |
| Charleston Executive            | 25          | 866,700           | 799,200          | 633,400           | 2,299,300         |
| Cheraw Municipal                | 3           | 50,000            | 138,900          | 13,200            | 202,100           |
| Chester-Catawba Regional        | 4           | 85,000            | 187,200          | 115,000           | 387,200           |
| Columbia-Owens-Downtown         | 13          | 490,000           | 3,319,300        | 686,000           | 4,495,300         |
| Conway-Horry                    | 30          | 819,700           | 1,883,100        | 2,297,000         | 4,999,800         |
| Darlington County               | 13          | 667,100           | 347,900          | 449,300           | 1,464,300         |
| Dillon County                   | 1           | 20,100            | 3,000            | 36,400            | 59,500            |
| Donaldson Center                | 1,734       | 68,406,400        | 6,655,300        | 27,268,600        | 102,330,300       |
| East Cooper                     | 8           | 336,700           | 143,600          | 243,400           | 723,700           |
| Edgefield County                | 0           | 0                 | 0                | 24,000            | 24,000            |
| Fairfield County                | 3           | 75,000            | 174,900          | 70,000            | 319,900           |
| Georgetown County               | 15          | 345,000           | 485,000          | 201,700           | 1,031,700         |
| Grand Strand                    | 45          | 1,147,300         | 484,800          | 1,820,400         | 3,452,500         |
| Greenville Downtown             | 134         | 4,130,800         | 3,394,200        | 8,010,400         | 15,535,400        |
| Greenwood County                | 4           | 70,000            | 326,900          | 335,000           | 731,900           |
| Hampton-Varnville               | 0           | 0                 | 10,000           | 15,000            | 25,000            |
| Hartsville Regional             | 2           | \$18,500          | \$254,200        | \$44,700          | \$317,400         |
| Hemingway-Stuckey               | 0           | 0                 | 0                | 6,700             | 6,700             |
| Hester Memorial                 | 0           | 0                 | 0                | 6,700             | 6,700             |
| Holly Hill                      | 0           | 0                 | 0                | 7,500             | 7,500             |

Exhibit 4-2 (continued)  
 Direct Economic Impacts by Airport  
 South Carolina Aviation Economic Impact Study

| Airport by Type             | FTE           | Expenditures         |                     |                      |                        |
|-----------------------------|---------------|----------------------|---------------------|----------------------|------------------------|
|                             | Jobs          | Payroll              | Capital             | Operating            | Total                  |
| Lake City Municipal         | 0             | 0                    | 10,000              | 16,700               | 26,700                 |
| Lancaster County            | 4             | 95,200               | 161,800             | 90,500               | 347,500                |
| Laurens County              | 2             | 33,900               | 157,400             | 21,200               | 212,500                |
| Lee County                  | 0             | 0                    | 151,100             | 6,700                | 157,800                |
| Lexington County at Pelion  | 2             | 60,000               | 71,200              | 15,000               | 146,200                |
| Lowcountry Regional         | 7             | 157,500              | 1,297,300           | 417,500              | 1,872,300              |
| Marion County               | 3             | 40,000               | 0                   | 55,000               | 95,000                 |
| Marlboro County             | 1             | 15,000               | 211,800             | 30,000               | 256,800                |
| McCormick County            | 0             | 0                    | 0                   | 6,700                | 6,700                  |
| Newberry County             | 4             | 74,000               | 150,000             | 10,700               | 234,700                |
| Oconee County               | 12            | 372,900              | 451,100             | 477,900              | 1,301,900              |
| Orangeburg Municipal        | 4             | 125,000              | 1,082,000           | 332,000              | 1,539,000              |
| Pageland                    | 0             | 0                    | 155,100             | 11,400               | 166,500                |
| Pickens County              | 3             | 115,000              | 270,200             | 200,000              | 585,200                |
| Ridgeland                   | 3             | 55,000               | 81,100              | 59,000               | 195,100                |
| Robert F. Swinnie           | 0             | 0                    | 334,200             | 6,700                | 340,900                |
| Rock Hill-York County       | 31            | 1,260,500            | 411,500             | 975,600              | 2,647,600              |
| Saluda County               | 8             | 225,000              | 125,700             | 168,200              | 518,900                |
| Santee Cooper Regional      | 7             | 175,000              | 136,400             | 76,000               | 387,400                |
| Spartanburg Dwntn. Mem.     | 47            | 2,083,100            | 143,900             | 3,949,000            | 6,176,000              |
| St. George                  | 2             | 60,000               | 177,100             | 11,700               | 248,800                |
| Summerville                 | 7             | 254,000              | 233,200             | 146,700              | 633,900                |
| Sumter                      | 6             | 197,100              | 492,100             | 312,200              | 1,001,400              |
| Twin City                   | 7             | 199,700              | 202,200             | 74,700               | 476,600                |
| Union County                | 4             | 76,500               | 193,300             | 160,000              | 429,800                |
| Williamsburg Regional       | 7             | 211,100              | 197,600             | 99,100               | 507,800                |
| Woodward Field              | 11            | 338,500              | 196,100             | 373,100              | 907,700                |
| Gen. Aviation Summary       | <b>2,297</b>  | <b>\$86,563,100</b>  | <b>\$30,100,200</b> | <b>\$54,383,100</b>  | <b>\$171,046,400</b>   |
| <b>Military<sup>1</sup></b> |               |                      |                     |                      |                        |
| Beaufort MCAS               | 3,455         | \$144,100,000        | na                  | \$30,400,000         | \$174,500,000          |
| Charleston AFB              | 3,755         | 155,600,000          | na                  | 171,400,000          | 327,000,000            |
| McEntire ANGS               | 1,020         | 42,300,000           | na                  | 11,900,000           | 54,200,000             |
| Shaw AFB                    | 4,895         | 206,900,000          | na                  | 21,800,000           | 228,700,000            |
| Military Summary            | <b>13,125</b> | <b>\$548,900,000</b> | na                  | <b>\$235,500,000</b> | <b>\$784,400,000</b>   |
| <b>Total</b>                | <b>19,515</b> | <b>\$772,390,700</b> | <b>\$74,485,100</b> | <b>\$411,395,600</b> | <b>\$1,258,271,400</b> |

Source: Wilbur Smith Associates

<sup>1</sup>Department of Defense, Directorate for Information Operations and Reports, 2004; The Economic Impact of Military in SC; A Focus on the Industry Distribution of Economic Activity, 2004

Payroll and Jobs – Earnings paid to people who work at the airports total \$772.4 million annually. This payroll goes to the estimated 19,515 full-time equivalent (FTE) jobs at the airports, where two part-time jobs typically equal one FTE job. In total, 25,424 people are employed at the airports and military airfields, of which 13,497 are actual full-time jobs and 11,929 are part-time. Many of these jobs are high paying, with the average aviation provision employee earning an annual salary of \$39,600 per FTE job; the average civil aviation airport FTE job earns an estimated \$35,000 versus the average FTE military employee who earns \$41,800.

Capital Expenditures – The \$74.5 million in capital expenditures at civilian airports represents physical improvements to airport facilities, either public or private.<sup>4</sup> Funds may come from private sources, such as the leaseholders who build air cargo sorting facilities at Columbia Metropolitan, or from government agencies such as the South Carolina Division of Aeronautics (SCDOA), the Federal Aviation Administration (FAA), or the local county or municipal governments.

The estimated capital expenditures represent an average of several years. This is because the measurement of new runway or terminal construction projects during a single year could exaggerate an airport's typical annual impacts (since these facilities are used over many years). Similarly, to exclude the major construction projects would under estimate an airport's economic impact. For this reason, the total capital costs evaluated in this study typically comprise an annual average of the capital costs over the past ten years. The annual average estimation approach better reflects the typical annual impact that large capital investment projects have on local communities.

Operation Expenses – Estimated operation expenses at the civilian airports and military airfields total \$411.4 million and include expenditures for utilities, operations, parts and supplies, services and other purchases. Of these, 57.2% (\$235.5 million) occur at military airfields and 42.8% (\$175.9 million) occur at civilian airports. This \$175.9 million is distributed between the six commercial service airports (\$121.5 million) and general aviation airports (\$54.4 million).

## **4.2 Indirect Impacts**

The estimated \$1.26 billion in total indirect economic impacts from South Carolina's airports reflects visitor expenditures of \$1.21 billion at commercial service airports and \$47.6 million at general aviation airports. The following discussion presents the visitor impact findings and summary calculations for the commercial passenger visitor and the general aviation visitor.

---

<sup>4</sup> Note the emphasis of this project was civilian, public use airports, not military airfields. For this reason, readily available employment and expenditure data on military airfields in South Carolina was used. This expenditure data did not breakdown estimates between capital and operation expenses.

Commercial Service Airport Visitor Expenditures – Each of the 3.2 million commercial passengers that arrive in South Carolina via one of the six commercial airports typically enplane and deplane. Based on departing passenger surveys conducted at each of the six commercial service airports and U.S. Department of Transportation Origin-Destination Survey data, an estimated 56.5% of South Carolina’s total annual enplaned (boarding) passengers (1.81 million) were visitors to the State. Based on departing passenger surveys, conducted in conjunction with the study, it is estimated that these visitors stayed in South Carolina an average of 6.3 days and spent an average of \$103 per day on hotel accommodation, food, entertainment, and other expenses. Given these assumptions it is estimated that the commercial passenger visitor impact totals \$1.17 million, as shown by airport in **Exhibit 4-3**.

Exhibit 4-3  
**Commercial Passenger Enplanements and Visitor Characteristics**  
 South Carolina Aviation Economic Impact Study

|                                   | Columbia Metro | Charleston Int'l | Florence Regional | Greenville-Spartanburg | Hilton Head Reg. | Myrtle Beach Int'l | Total        |
|-----------------------------------|----------------|------------------|-------------------|------------------------|------------------|--------------------|--------------|
| Total Enplaned Passengers         | 634,100        | 912,600          | 35,300            | 791,400                | 62,900           | 768,900            | 3,205,200    |
| <i>Percent Visitors</i>           | <u>48%</u>     | <u>59%</u>       | <u>48%</u>        | <u>45%</u>             | <u>78%</u>       | <u>71%</u>         | <u>56%</u>   |
| Total Visitors                    | 304,368        | 538,434          | 16,944            | 356,130                | 49,062           | 545,919            | 1,810,857    |
| <i>Days in Region per Visitor</i> | <u>7.1</u>     | <u>6.3</u>       | <u>5.6</u>        | <u>4.9</u>             | <u>5.2</u>       | <u>6.9</u>         | <u>6.3</u>   |
| Total Visitor Days (000)          | 2,161          | 3,392            | 95                | 1,745                  | 255              | 3,767              | 11,415       |
| <i>Daily Exp. per Visitor</i>     | <u>\$77</u>    | <u>\$122</u>     | <u>\$105</u>      | <u>\$85</u>            | <u>\$155</u>     | <u>\$106</u>       | <u>\$103</u> |
| Total Annual Expen. (\$000)       | \$166,400      | \$413,800        | \$10,000          | \$148,300              | \$39,500         | \$399,300          | \$1,177,300  |

In addition, commercial service airports accommodate a significant number of general aviation visitors, who also generate significant visitor impacts. Specifically, an estimated 177,098 general aviation visitors arrive at commercial service airports annually. Of these, 64% stay for only a few hours (i.e., day only) and spend an average of \$44 per day; the other 36% stay an average of 2.2 days and spend \$246 per day. Combined, the day only expenditure impacts (\$4.9 million) and overnight-related expenditure impacts (\$34.8 million) result in total GA visitor impacts at commercial service airports of \$39.7 million. The general aviation impacts at commercial service airports is summarized in **Exhibit 4-4**.<sup>5</sup>

<sup>5</sup> The exhibit also summarizes the general aviation visitor impacts at general aviation airports, which are detailed in the next subsection.

Exhibit 4-4  
**General Aviation Visitors and Impacts by Airport Type**  
 South Carolina Aviation Economic Impact Study

|   | Airport Type        |                     |                     |
|---|---------------------|---------------------|---------------------|
|   | General Aviation    | Commercial Service  | Total               |
| <b>General Aviation Visitors</b>        |                     |                     |                     |
| Itinerant & Air Taxi Operations         | 551,900             | 140,900             | 692,800             |
| Operations per Landing                  | <u>2</u>            | <u>2</u>            | <u>2</u>            |
| Itinerant Landings                      | 275,950             | 70,450              | 346,400             |
| Percent Visitors                        | <u>65.1%</u>        | <u>64.9%</u>        | <u>65.0%</u>        |
| Visitor Itinerant Landings              | 179,600             | 45,700              | 225,300             |
| People/Aircraft (Pilots & Pass.)        | <u>3.2</u>          | <u>3.9</u>          | <u>3.3</u>          |
| <b>Total Visitors</b>                   | <b>576,500</b>      | <b>177,100</b>      | <b>753,600</b>      |
| <b>General Aviation Visitor Impacts</b> |                     |                     |                     |
| <i>Day-Only Visitors Impacts</i>        |                     |                     |                     |
| Percent Day Only                        | 75%                 | 64%                 | 72%                 |
| Day Only Visitors                       | 429,800             | 113,200             | 543,000             |
| Daily Expend. per Visitor               | <u>\$32</u>         | <u>\$44</u>         | <u>\$35</u>         |
| Day-Only Visitor Impacts                | \$13,831,100        | \$4,930,700         | \$18,761,800        |
| <i>Overnight Visitor Impacts</i>        |                     |                     |                     |
| Percent Overnight Only                  | 25%                 | 36%                 | 28%                 |
| Total G/A Overnight Visitors            | 146,700             | 63,900              | 210,600             |
| Days in Region per Vis.                 | <u>2.0</u>          | <u>2.2</u>          | <u>2.1</u>          |
| Visitor Days                            | 291,400             | 141,500             | 432,900             |
| Daily Exp. per Vis.                     | <u>\$116</u>        | <u>\$246</u>        | <u>\$158</u>        |
| Total Over Vis. Exp.                    | 33,781,900          | 34,753,800          | 68,535,700          |
| <b>Total GA Visitor Impacts</b>         | <b>\$47,613,000</b> | <b>\$39,684,500</b> | <b>\$87,297,500</b> |

General Aviation Airport Visitor Expenditures – The general aviation visitor impact estimates were derived from a Transient Pilot Survey, information collected from fixed-base operators (FBO), discussions with FBOs, and from consultant experience at other airports where transient pilot surveys have been conducted. The results of the analysis, also shown previously in Exhibit 4-4, suggest that annual visitor impacts at general aviation airports total \$47.6 million. Combined with the general aviation impacts that occur at commercial service airports (presented above), the total visitor impact in South Carolina attributable to general aviation totals \$87.3 million.

Of the 692,800 general aviation air taxi and itinerant aircraft operations at South Carolina's airports, a total of 346,400 landings occurred (e.g., one aircraft operation equals one take-off or one landing), of which 65.1% (225,300) were visitors. Data from the survey suggest an average of 3.3 people per aircraft (including both pilots and passengers), resulting in an estimated 753,600 annual general aviation visitors to South Carolina. The majority of these general aviation visitors (72% or 543,000) stay in the region for less than an entire day. Many business-related general aviation visitors typically fly into general aviation airports, conduct business and depart the same day. Given the short time duration, such visitors typically account for only a modest impact, spending an average of \$35 per person-day<sup>6</sup>. Conversely, another 210,600 aviation related visitors (28%) stay overnight and generate larger visitor impacts. The average length of stay of "overnight" general aviation visitors is 2.1 days, with an average daily expenditure of \$158.

Combined, visitor expenditures (food, lodging, retail, etc.) in South Carolina that arise from visitors who arrive by air totals \$87.3 million annually. This includes the impacts associated with both "day-only" and "overnight visitors" at both commercial and general aviation airports.

Total Indirect Impacts – The total indirect impacts associated with visitor impacts at both commercial service and general aviation airports totals \$1.26 million, as shown by airport and activity type in **Exhibit 4-5**; visitor impacts at commercial service airports total \$1.22 million (93%), versus \$47.6 million at commercial service airports (3%). However, the general aviation share of these expenditures, \$87.1 million (including GA impacts at commercial service airports), suggests that general aviation represents nearly 7% of the total visitor impact.

---

<sup>6</sup> Note the actual expenditure per visitor at each airport varies significantly

Exhibit 4-5  
**Indirect Economic Impacts by Airport**  
 South Carolina Aviation Economic Impact Study

| Airport Name                    | General<br>Aviation | Commercial         | Total Indirect     |
|---------------------------------|---------------------|--------------------|--------------------|
| <b>Commercial Service</b>       |                     |                    |                    |
| Charleston International        | 10,326,600          | \$413,840,400      | \$424,167,000      |
| Columbia Metropolitan           | 7,196,200           | 166,398,000        | 173,594,200        |
| Florence Regional               | 3,029,500           | 9,963,100          | 12,992,600         |
| Greenville-Spartanburg Int'l    | 2,430,100           | 148,328,100        | 150,758,200        |
| Hilton Head                     | 3,094,300           | 39,544,000         | 42,638,300         |
| Myrtle Beach Int'l              | <u>13,607,900</u>   | <u>399,285,200</u> | <u>412,893,100</u> |
| Total Commercial                | 39,684,600          | \$1,177,358,800    | \$1,217,043,400    |
| <b>General Aviation Service</b> |                     |                    |                    |
| Aiken Municipal                 | 1,020,900           | \$0                | \$1,020,900        |
| Allendale County                | 289,800             | 0                  | 289,800            |
| Anderson Regional               | 2,055,500           | 0                  | 2,055,500          |
| Bamberg County                  | 15,600              | 0                  | 15,600             |
| Barnwell County                 | 198,000             | 0                  | 198,000            |
| Beaufort County                 | 2,288,000           | 0                  | 2,288,000          |
| Berkeley County                 | 609,500             | 0                  | 609,500            |
| Charleston Executive            | 2,956,200           | 0                  | 2,956,200          |
| Cheraw Municipal                | 182,000             | 0                  | 182,000            |
| Chester-Catawba Regional        | 150,000             | 0                  | 150,000            |
| Columbia-Owens-Downtown         | 4,303,100           | 0                  | 4,303,100          |
| Conway-Horry                    | 161,600             | 0                  | 161,600            |
| Darlington County               | 1,634,600           | 0                  | 1,634,600          |
| Dillon County                   | 19,000              | 0                  | 19,000             |
| Donaldson Center                | 2,322,000           | 0                  | 2,322,000          |
| East Cooper                     | 293,300             | 0                  | 293,300            |
| Edgefield County                | 6,300               | 0                  | 6,300              |
| Fairfield County                | 127,500             | 0                  | 127,500            |
| Georgetown County               | 937,100             | 0                  | 937,100            |
| Grand Strand                    | 2,438,100           | 0                  | 2,438,100          |
| Greenville Downtown             | 4,738,100           | 0                  | 4,738,100          |
| Greenwood County                | 885,100             | 0                  | 885,100            |
| Hampton-Varnville               | 61,900              | 0                  | 61,900             |
| Hartsville Regional             | 75,600              | 0                  | \$75,600           |
| Hemingway-Stuckey               | 1,000               | 0                  | 1,000              |
| Hester Memorial                 | 43,200              | 0                  | 43,200             |
| Holly Hill                      | 7,300               | 0                  | 7,300              |

Exhibit 4-5 (continued)  
 Indirect Economic Impacts by Airport  
 South Carolina Aviation Economic Impact Study

| Airport                    | General Aviation  | Commercial             | Total Indirect         |
|----------------------------|-------------------|------------------------|------------------------|
| Lake City Municipal        | 22,100            | 0                      | 22,100                 |
| Lancaster County           | 1,108,500         | 0                      | 1,108,500              |
| Laurens County             | 91,100            | 0                      | 91,100                 |
| Lee County                 | 8,300             | 0                      | 8,300                  |
| Lexington County at Pelion | 142,800           | 0                      | 142,800                |
| Lowcountry Regional        | 888,900           | 0                      | 888,900                |
| Marion County              | 173,500           | 0                      | 173,500                |
| Marlboro County            | 77,800            | 0                      | 77,800                 |
| McCormick County           | 68,600            | 0                      | 68,600                 |
| Newberry County            | 189,000           | 0                      | 189,000                |
| Oconee County              | 2,441,700         | 0                      | 2,441,700              |
| Orangeburg Municipal       | 1,011,500         | 0                      | 1,011,500              |
| Pageland                   | 16,200            | 0                      | 16,200                 |
| Pickens County             | 5,696,300         | 0                      | 5,696,300              |
| Ridgeland                  | 50,400            | 0                      | 50,400                 |
| Robert F. Swinnie          | 10,200            | 0                      | 10,200                 |
| Rock Hill-York County      | 1,370,600         | 0                      | 1,370,600              |
| Saluda County              | 126,900           | 0                      | 126,900                |
| Santee Cooper Regional     | 305,100           | 0                      | 305,100                |
| Spartanburg Dwn. Mem.      | 2,656,300         | 0                      | 2,656,300              |
| St. George                 | 22,500            | 0                      | 22,500                 |
| Summerville                | 1,246,900         | 0                      | 1,246,900              |
| Sumter                     | 854,800           | 0                      | 854,800                |
| Twin City                  | 8,400             | 0                      | 8,400                  |
| Union County               | 44,900            | 0                      | 44,900                 |
| Williamsburg Regional      | 53,400            | 0                      | 53,400                 |
| Woodward Field             | 1,106,300         | 0                      | 1,106,300              |
| Gen. Aviation Summary      | <b>47,613,300</b> | <b>\$0</b>             | <b>\$47,613,300</b>    |
| <b>Military</b>            |                   |                        |                        |
| Beaufort MCAS              | na                | na                     | na                     |
| Charleston AFB             | na                | na                     | na                     |
| McEntire ANGS              | na                | na                     | na                     |
| Shaw AFB                   | na                | na                     | na                     |
| Military Summary           | <b>na</b>         | <b>na</b>              | <b>na</b>              |
| <b>Total</b>               | <b>87,297,900</b> | <b>\$1,177,358,800</b> | <b>\$1,264,656,700</b> |

### 4.3 Multiplier and Total Impact Summary

The primary direct and indirect economic expenditures in the airport impact area create demand for support goods and services, and induce re-spending of wages and salaries by airport and visitor industry workers. This “multiplier” effect reflects the supplier and re-spending impacts that arise from the direct and indirect expenditure impacts. In total, annual aviation related impacts total \$4.34 billion in output (i.e., economic activity), with \$1.95 billion in earnings is paid to over 65,500 jobs. The impacts are summarized in **Exhibit 4-6** by measure (output, earnings and jobs), and type (direct, indirect and multiplier).

Exhibit 4-6

#### Economic Impacts by Airport Type, Impact Measure and Impact Type – 2005 South Carolina Aviation Economic Impact Study

| Impact Measure and Type | Civil Aviation       |                    |                      | Military           | Total                  |
|-------------------------|----------------------|--------------------|----------------------|--------------------|------------------------|
|                         | Commercial           | General Aviation   | Total Civil          |                    |                        |
| <b>Output</b>           |                      |                    |                      |                    |                        |
| Direct                  | \$302,825,000        | \$171,046,400      | \$473,871,400        | \$784,400,000      | \$1,258,271,400        |
| Indirect                | 1,217,043,400        | 47,613,300         | 1,264,656,700        | 0                  | 1,264,656,700          |
| Multiplier              | <u>1,004,565,900</u> | <u>198,692,900</u> | <u>1,203,258,800</u> | <u>617,278,600</u> | <u>1,820,537,400</u>   |
| Total                   | \$2,524,434,300      | \$417,352,600      | \$2,941,786,900      | \$1,401,678,600    | <b>\$4,343,465,500</b> |
| <b>Earnings</b>         |                      |                    |                      |                    |                        |
| Direct                  | \$136,927,600        | \$86,563,100       | \$223,490,700        | \$548,900,000      | \$772,390,700          |
| Indirect                | 486,272,000          | 17,677,800         | 503,949,800          | 0                  | 503,949,800            |
| Multiplier              | <u>401,376,200</u>   | <u>73,770,600</u>  | <u>475,146,800</u>   | <u>196,737,700</u> | <u>671,884,500</u>     |
| Total                   | \$1,024,575,800      | \$178,011,500      | \$1,202,587,300      | \$745,637,700      | <b>\$1,948,225,000</b> |
| <b>Jobs</b>             |                      |                    |                      |                    |                        |
| Direct                  | 4,093                | 2,297              | 6,390                | 13,125             | 19,515                 |
| Indirect                | 20,148               | 555                | 20,703               | 0                  | 20,703                 |
| Multiplier              | <u>16,630</u>        | <u>2,315</u>       | <u>18,945</u>        | <u>6,370</u>       | <u>25,315</u>          |
| Total                   | 40,871               | 5,167              | 46,038               | 19,495             | <b>65,533</b>          |

**Impact Breakdown** – Review of the job impacts by impact type indicates that total direct impacts account for 19,515 jobs (30%), while the indirect jobs account for 20,703 (31%), and the multiplier account for 25,315 (39%). This generates an aggregate job multiplier of 1.63; which suggests that for every FTE direct and/or indirect job another 0.63 jobs arise in South Carolina associated with supply/support services, or through the respending of earnings.

Review of the job impacts by aviation activity indicates that commercial service airports account for 62% (40,871) of the jobs impacts, while general aviation airports account for 8% (5,167) and military airfields account for 30% (19,495). Breakdown of the earnings and economic activity (output) impact measures indicates a similar distribution between impact types and airport types.

#### 4.4 Total Impacts by Airport

The impact findings for each airport are detailed below, which begins with, a summary of the total impact measures (output, earnings and jobs) by airport, followed by a detailed breakdown of the each impact measure by the three impact types (direct, and indirect/multiplier).

Total Impacts – The total output, earnings and jobs impacts for the 60 civilian airports and the 4 military airfields are summarized in **Exhibit 4-7**. These aggregated figures include the direct, indirect and multiplier impacts, which are disaggregated by impact type in the following tables.

Charleston International (CHS) and Myrtle Beach International (MYR) generate the greatest impacts with output in the \$800 million range, of which over \$300 million is paid in earnings to over 12,000 jobs at both airports. These impacts reflect the extensive aviation service provided at the airports as well as the large share of visitors who arrive by air.

Among general aviation airports, Donaldson Center generates the largest economic impacts with \$222.2 million in output, of which \$103.3 million is paid to 2,430 jobs due to the extensive aircraft services provided by airport tenants. Greenville Downtown also generates substantial impacts with over \$35.2 million in output and 453 jobs.

Output (Economic Activity) Impacts – The total \$4.34 billion in airport related output/economic activity is broken down by the direct, indirect and multiplier impact types in **Exhibit 4-8**. The shown shows that Columbia Metropolitan (CAE) and Greenville/Spartanburg International (GSP) generate significantly larger direct impacts than MYR. However, the huge indirect impacts associated with visitors at MYR far exceed those at CAE and GSP. In fact, the estimated indirect impacts at all commercial service airports (\$1.2 billion) quadruples the direct impacts (\$0.3 billion). This magnitude helps demonstrate the value of South Carolina's airports to the surrounding communities. Conversely, the direct impacts at general aviation airports (\$171.0 million) far exceed the indirect impacts (\$47.6 million) associated with visitor expenditures.

Earnings and Jobs Impacts – The earnings and jobs impacts are also detailed for each airport by the direct and indirect/multiplier components in **Exhibit 4-9** and **Exhibit 4-10**, respectively.<sup>7</sup> These jobs are reported in terms of full-time-equivalents (FTEs), where two part-time employees are typically reported as a single FTE. Of notable interest is that the greatest number of direct, at-airport jobs (1,734) occur at Donaldson Center, a general aviation airport – not one of the commercial service airports. The high number of employees associated with cargo sorting activities at Columbia Metropolitan Airport, as well as other airport aviation activity, result in its second highest at-airport employment level (1,526).

---

<sup>7</sup> Note that the expenditures estimates associated with the indirect visitor impacts does not enable a separate estimate of the associated indirect jobs and indirect earnings for each airport.

Exhibit 4-7  
**Total Economic Impacts by Airport**  
 South Carolina Aviation Economic Impact Study

| Airport                         | Output             |                    |               |
|---------------------------------|--------------------|--------------------|---------------|
|                                 | (Econ. Activity)   | Earnings           | Jobs          |
| <b>Commercial Service</b>       |                    |                    |               |
| Charleston International        | \$806,457,400      | \$333,574,900      | 13,680        |
| Columbia Metropolitan           | 421,403,400        | 164,900,100        | 6,540         |
| Florence Regional               | 48,393,600         | 18,224,100         | 656           |
| Greenville-Spartanburg Int'l    | 409,922,100        | 149,583,000        | 5,911         |
| Hilton Head                     | 81,804,200         | 33,071,800         | 1,438         |
| Myrtle Beach Int'l              | <u>756,453,600</u> | <u>325,221,900</u> | <u>12,646</u> |
| Total Commercial                | \$2,524,434,300    | \$1,024,575,800    | 40,871        |
| <b>General Aviation Service</b> |                    |                    |               |
| Aiken Municipal                 | \$4,925,100        | \$1,804,300        | 66            |
| Allendale County                | 986,900            | 414,800            | 16            |
| Anderson Regional               | 12,916,400         | 5,160,100          | 176           |
| Bamberg County                  | 124,200            | 53,600             | 1             |
| Barnwell County                 | 2,142,800          | 1,286,300          | 37            |
| Beaufort County                 | 5,127,000          | 2,201,600          | 90            |
| Berkeley County                 | 4,070,600          | 1,719,600          | 57            |
| Charleston Executive            | 8,893,600          | 3,151,800          | 128           |
| Cheraw Municipal                | 654,600            | 243,500            | 10            |
| Chester-Catawba Regional        | 927,300            | 427,500            | 15            |
| Columbia-Owens-Downtown         | 14,830,000         | 5,635,800          | 218           |
| Conway-Horry                    | 8,975,400          | 3,188,700          | 96            |
| Darlington County               | 5,251,100          | 1,886,400          | 75            |
| Dillon County                   | 136,300            | 46,700             | 1             |
| Donaldson Center                | 222,159,200        | 103,268,900        | 2,430         |
| East Cooper                     | 1,772,200          | 832,600            | 26            |
| Edgefield County                | 53,800             | 33,900             | 1             |
| Fairfield County                | 768,500            | 268,800            | 9             |
| Georgetown County               | 3,352,200          | 1,167,100          | 47            |
| Grand Strand                    | 10,118,700         | 3,628,900          | 137           |
| Greenville Downtown             | 35,198,300         | 13,433,900         | 453           |
| Greenwood County                | 2,750,400          | 993,800            | 40            |
| Hampton-Varnville               | 148,100            | 62,400             | 2             |
| Hartsville Regional             | 672,200            | 292,600            | 8             |
| Hemingway-Stuckey               | 13,800             | 8,800              | 0             |
| Hester Memorial                 | 84,300             | 34,700             | 1             |
| Holly Hill                      | 25,800             | 13,900             | 0             |

*Exhibit 4-7 (continued)*  
*Total Economic Impacts by Airport*  
*South Carolina Aviation Economic Impact Study*

| Airport                     | Output<br>(Econ. Activity) | Earnings               | Jobs          |
|-----------------------------|----------------------------|------------------------|---------------|
| Lake City Municipal         | 84,000                     | 41,000                 | 1             |
| Lancaster County            | 2,448,800                  | 998,300                | 43            |
| Laurens County              | 517,500                    | 229,800                | 6             |
| Lee County                  | 282,500                    | 112,800                | 3             |
| Lexington County at Pelion  | 494,900                    | 228,100                | 9             |
| Lowcountry Regional         | 4,700,000                  | 2,027,300              | 69            |
| Marion County               | 460,300                    | 226,100                | 9             |
| Marlboro County             | 571,600                    | 242,800                | 8             |
| McCormick County            | 125,900                    | 50,900                 | 1             |
| Newberry County             | 726,200                    | 317,800                | 11            |
| Oconee County               | 6,296,400                  | 2,686,800              | 107           |
| Orangeburg Municipal        | 4,341,200                  | 1,862,900              | 68            |
| Pageland                    | 311,000                    | 126,200                | 3             |
| Pickens County              | 10,361,600                 | 4,215,900              | 189           |
| Ridgeland                   | 425,600                    | 177,700                | 6             |
| Robert F. Swinnie           | 596,400                    | 234,800                | 7             |
| Rock Hill-York County       | 6,934,300                  | 2,339,500              | 87            |
| Saluda County               | 1,118,500                  | 369,400                | 12            |
| Santee Cooper Regional      | 1,177,200                  | 417,300                | 18            |
| Spartanburg Dwntrn. Mem.    | 15,410,400                 | 5,205,100              | 190           |
| St. George                  | 465,300                    | 170,200                | 5             |
| Summerville                 | 3,170,200                  | 1,128,600              | 49            |
| Sumter                      | 3,163,600                  | 1,184,200              | 46            |
| Twin City                   | 843,100                    | 314,100                | 9             |
| Union County                | 824,500                    | 319,900                | 10            |
| Williamsburg Regional       | 972,700                    | 327,700                | 10            |
| Woodward Field              | <u>3,450,100</u>           | <u>1,195,300</u>       | <u>51</u>     |
| Gen. Aviation Summary       | \$417,352,600              | \$178,011,500          | 5,167         |
| <b>Military<sup>1</sup></b> |                            |                        |               |
| Beaufort MCAS               | 311,821,700                | 165,876,800            | 4,337         |
| Charleston AFB              | 584,330,600                | 310,840,900            | 8,127         |
| McEntire ANGS               | 96,852,300                 | 51,521,600             | 1,347         |
| Shaw AFB                    | <u>408,674,000</u>         | <u>217,398,400</u>     | <u>5,684</u>  |
| Military Summary            | \$1,401,678,600            | \$745,637,700          | 19,495        |
| <b>Total</b>                | <b>\$4,343,465,500</b>     | <b>\$1,948,225,000</b> | <b>65,533</b> |

Source: Wilbur Smith Associates

Exhibit 4-8  
**Output (Economic Activity) Impacts by Type and Airport**  
 South Carolina Aviation Economic Impact Study

| Airport                      | Direct            | Indirect           | Multiplier         | Total              |
|------------------------------|-------------------|--------------------|--------------------|--------------------|
| <b>Commercial Service</b>    |                   |                    |                    |                    |
| Charleston International     | \$72,517,500      | \$424,167,000      | \$309,772,900      | \$806,457,400      |
| Columbia Metropolitan        | 85,670,800        | 173,594,200        | 162,138,400        | 421,403,400        |
| Florence Regional            | 15,729,100        | 12,992,600         | 19,671,900         | 48,393,600         |
| Greenville-Spartanburg Int'l | 72,811,900        | 150,758,200        | 186,352,000        | 409,922,100        |
| Hilton Head                  | 7,156,800         | 42,638,300         | 32,009,100         | 81,804,200         |
| Myrtle Beach Int'l           | <u>48,938,900</u> | <u>412,893,100</u> | <u>294,621,600</u> | <u>756,453,600</u> |
| Total Commercial             | \$302,825,000     | \$1,217,043,400    | \$1,004,565,900    | \$2,524,434,300    |
| <b>General Aviation</b>      |                   |                    |                    |                    |
| Aiken Municipal              | \$1,858,000       | \$1,020,900        | \$2,046,200        | \$4,925,100        |
| Allendale County             | 293,600           | 289,800            | 403,500            | 986,900            |
| Anderson Regional            | 5,418,900         | 2,055,500          | 5,442,000          | 12,916,400         |
| Bamberg County               | 57,100            | 15,600             | 51,500             | 124,200            |
| Barnwell County              | 1,012,600         | 198,000            | 932,200            | 2,142,800          |
| Beaufort County              | 783,300           | 2,288,000          | 2,055,700          | 5,127,000          |
| Berkeley County              | 1,782,000         | 609,500            | 1,679,100          | 4,070,600          |
| Charleston Executive         | 2,299,300         | 2,956,200          | 3,638,100          | 8,893,600          |
| Cheraw Municipal             | 202,100           | 182,000            | 270,500            | 654,600            |
| Chester-Catawba Regional     | 387,200           | 150,000            | 390,100            | 927,300            |
| Columbia-Owens-Downtown      | 4,495,300         | 4,303,100          | 6,031,600          | 14,830,000         |
| Conway-Horry                 | 4,999,800         | 161,600            | 3,814,000          | 8,975,400          |
| Darlington County            | 1,464,300         | 1,634,600          | 2,152,200          | 5,251,100          |
| Dillon County                | 59,500            | 19,000             | 57,800             | 136,300            |
| Donaldson Center             | 102,330,300       | 2,322,000          | 117,506,900        | 222,159,200        |
| East Cooper                  | 723,700           | 293,300            | 755,200            | 1,772,200          |
| Edgefield County             | 24,000            | 6,300              | 23,500             | 53,800             |
| Fairfield County             | 319,900           | 127,500            | 321,100            | 768,500            |
| Georgetown County            | 1,031,700         | 937,100            | 1,383,400          | 3,352,200          |
| Grand Strand                 | 3,452,500         | 2,438,100          | 4,228,100          | 10,118,700         |
| Greenville Downtown          | 15,535,400        | 4,738,100          | 14,924,800         | 35,198,300         |
| Greenwood County             | 731,900           | 885,100            | 1,133,400          | 2,750,400          |
| Hampton-Varnville            | 25,000            | 61,900             | 61,200             | 148,100            |
| Hartsville Regional          | 317,400           | 75,600             | 279,200            | 672,200            |
| Hemingway-Stuckey            | 6,700             | 1,000              | 6,100              | 13,800             |
| Hester Memorial              | 6,700             | 43,200             | 34,400             | 84,300             |
| Holly Hill                   | 7,500             | 7,300              | 11,000             | 25,800             |

Exhibit 4-8 (continued)  
 Output (Economic Activity) Impacts by Type and Airport  
 South Carolina Aviation Economic Impact Study

| Airport                    | Direct             | Indirect         | Multiplier         | Total              |
|----------------------------|--------------------|------------------|--------------------|--------------------|
| Lake City Municipal        | 26,700             | 22,100           | 35,200             | 84,000             |
| Lancaster County           | 347,500            | 1,108,500        | 992,800            | 2,448,800          |
| Laurens County             | 212,500            | 91,100           | 213,900            | 517,500            |
| Lee County                 | 157,800            | 8,300            | 116,400            | 282,500            |
| Lexington County at Pelion | 146,200            | 142,800          | 205,900            | 494,900            |
| Lowcountry Regional        | 1,872,300          | 888,900          | 1,938,800          | 4,700,000          |
| Marion County              | 95,000             | 173,500          | 191,800            | 460,300            |
| Marlboro County            | 256,800            | 77,800           | 237,000            | 571,600            |
| McCormick County           | 6,700              | 68,600           | 50,600             | 125,900            |
| Newberry County            | 234,700            | 189,000          | 302,500            | 726,200            |
| Oconee County              | 1,301,900          | 2,441,700        | 2,552,800          | 6,296,400          |
| Orangeburg Municipal       | 1,539,000          | 1,011,500        | 1,790,700          | 4,341,200          |
| Pageland                   | 166,500            | 16,200           | 128,300            | 311,000            |
| Pickens County             | 585,200            | 5,696,300        | 4,080,100          | 10,361,600         |
| Ridgeland                  | 195,100            | 50,400           | 180,100            | 425,600            |
| Robert F. Swinnie          | 340,900            | 10,200           | 245,300            | 596,400            |
| Rock Hill-York County      | 2,647,600          | 1,370,600        | 2,916,100          | 6,934,300          |
| Saluda County              | 518,900            | 126,900          | 472,700            | 1,118,500          |
| Santee Cooper Regional     | 387,400            | 305,100          | 484,700            | 1,177,200          |
| Spartanburg Dwntrn. Mem.   | 6,176,000          | 2,656,300        | 6,578,100          | 15,410,400         |
| St. George                 | 248,800            | 22,500           | 194,000            | 465,300            |
| Summerville                | 633,900            | 1,246,900        | 1,289,400          | 3,170,200          |
| Sumter                     | 1,001,400          | 854,800          | 1,307,400          | 3,163,600          |
| Twin City                  | 476,600            | 8,400            | 358,100            | 843,100            |
| Union County               | 429,800            | 44,900           | 349,800            | 824,500            |
| Williamsburg Regional      | 507,800            | 53,400           | 411,500            | 972,700            |
| Woodward Field             | <u>907,700</u>     | <u>1,106,300</u> | <u>1,436,100</u>   | <u>3,450,100</u>   |
| Gen. Aviation Summary      | \$171,046,400      | \$47,613,300     | \$198,692,900      | \$417,352,600      |
| <b>Military</b>            |                    |                  |                    |                    |
| Beaufort MCAS              | \$174,500,000      | na               | \$137,321,700      | \$311,821,700      |
| Charleston AFB             | 327,000,000        | na               | 257,330,600        | 584,330,600        |
| McEntire ANGS              | 54,200,000         | na               | 42,652,300         | 96,852,300         |
| Shaw AFB                   | <u>228,700,000</u> | <u>na</u>        | <u>179,974,000</u> | <u>408,674,000</u> |
| Military Summary           | \$784,400,000      | 0                | \$617,278,600      | \$1,401,678,600    |
| <b>Total</b>               | \$1,258,271,400    | \$1,264,656,700  | \$1,820,537,400    | \$4,343,465,500    |

Exhibit 4-9  
**Earnings Impacts by Type and Airport**  
 South Carolina Aviation Economic Impact Study

| Airport                         | Direct            | Indirect and<br>Induced | Total              |
|---------------------------------|-------------------|-------------------------|--------------------|
| <b>Commercial Service</b>       |                   |                         |                    |
| Charleston International        | \$30,417,300      | \$303,157,600           | \$333,574,900      |
| Columbia Metropolitan           | 44,252,700        | 120,647,400             | 164,900,100        |
| Florence Regional               | 5,314,300         | 12,909,800              | 18,224,100         |
| Greenville-Spartanburg Int'l    | 31,718,700        | 117,864,300             | 149,583,000        |
| Hilton Head                     | 3,066,800         | 30,005,000              | 33,071,800         |
| Myrtle Beach Int'l              | <u>22,157,800</u> | <u>303,064,100</u>      | <u>325,221,900</u> |
| Total Commercial                | \$136,927,600     | \$887,648,200           | \$1,024,575,800    |
| <b>General Aviation Service</b> |                   |                         |                    |
| Aiken Municipal                 | \$295,000         | \$1,509,300             | \$1,804,300        |
| Allendale County                | 65,500            | 349,300                 | 414,800            |
| Anderson Regional               | 2,164,500         | 2,995,600               | 5,160,100          |
| Bamberg County                  | 0                 | 53,600                  | 53,600             |
| Barnwell County                 | 59,800            | 1,226,500               | 1,286,300          |
| Beaufort County                 | 70,000            | 2,131,600               | 2,201,600          |
| Berkeley County                 | 156,000           | 1,563,600               | 1,719,600          |
| Charleston Executive            | 866,700           | 2,285,100               | 3,151,800          |
| Cheraw Municipal                | 50,000            | 193,500                 | 243,500            |
| Chester-Catawba Regional        | 85,000            | 342,500                 | 427,500            |
| Columbia-Owens-Downtown         | 490,000           | 5,145,800               | 5,635,800          |
| Conway-Horry                    | 819,700           | 2,369,000               | 3,188,700          |
| Darlington County               | 667,100           | 1,219,300               | 1,886,400          |
| Dillon County                   | 20,100            | 26,600                  | 46,700             |
| Donaldson Center                | 68,406,400        | 34,862,500              | 103,268,900        |
| East Cooper                     | 336,700           | 495,900                 | 832,600            |
| Edgefield County                | 0                 | 33,900                  | 33,900             |
| Fairfield County                | 75,000            | 193,800                 | 268,800            |
| Georgetown County               | 345,000           | 822,100                 | 1,167,100          |
| Grand Strand                    | 1,147,300         | 2,481,600               | 3,628,900          |
| Greenville Downtown             | 4,130,800         | 9,303,100               | 13,433,900         |
| Greenwood County                | 70,000            | 923,800                 | 993,800            |
| Hampton-Varnville               | 0                 | 62,400                  | 62,400             |
| Hartsville Regional             | 18,500            | 274,100                 | 292,600            |
| Hemingway-Stuckey               | 0                 | 8,800                   | 8,800              |
| Hester Memorial                 | 0                 | 34,700                  | 34,700             |
| Holly Hill                      | 0                 | 13,900                  | 13,900             |

*Exhibit 4-9 (continued)*  
*Earnings Impacts by Type and Airport*  
*South Carolina Aviation Economic Impact Study*

| Airport                     | Direct             | Indirect and<br>Induced | Total              |
|-----------------------------|--------------------|-------------------------|--------------------|
| Lake City Municipal         | 0                  | 41,000                  | 41,000             |
| Lancaster County            | 95,200             | 903,100                 | 998,300            |
| Laurens County              | 33,900             | 195,900                 | 229,800            |
| Lee County                  | 0                  | 112,800                 | 112,800            |
| Lexington County at Pelion  | 60,000             | 168,100                 | 228,100            |
| Lowcountry Regional         | 157,500            | 1,869,800               | 2,027,300          |
| Marion County               | 40,000             | 186,100                 | 226,100            |
| Marlboro County             | 15,000             | 227,800                 | 242,800            |
| McCormick County            | 0                  | 50,900                  | 50,900             |
| Newberry County             | 74,000             | 243,800                 | 317,800            |
| Oconee County               | 372,900            | 2,313,900               | 2,686,800          |
| Orangeburg Municipal        | 125,000            | 1,737,900               | 1,862,900          |
| Pageland                    | 0                  | 126,200                 | 126,200            |
| Pickens County              | 115,000            | 4,100,900               | 4,215,900          |
| Ridgeland                   | 55,000             | 122,700                 | 177,700            |
| Robert F. Swinnie           | 0                  | 234,800                 | 234,800            |
| Rock Hill-York County       | 1,260,500          | 1,079,000               | 2,339,500          |
| Saluda County               | 225,000            | 144,400                 | 369,400            |
| Santee Cooper Regional      | 175,000            | 242,300                 | 417,300            |
| Spartanburg Dwntrn. Mem.    | 2,083,100          | 3,122,000               | 5,205,100          |
| St. George                  | 60,000             | 110,200                 | 170,200            |
| Summerville                 | 254,000            | 874,600                 | 1,128,600          |
| Sumter                      | 197,100            | 987,100                 | 1,184,200          |
| Twin City                   | 199,700            | 114,400                 | 314,100            |
| Union County                | 76,500             | 243,400                 | 319,900            |
| Williamsburg Regional       | 211,100            | 116,600                 | 327,700            |
| Woodward Field              | <u>338,500</u>     | <u>856,800</u>          | <u>1,195,300</u>   |
| Gen. Aviation Summary       | \$86,563,100       | \$91,448,400            | \$178,011,500      |
| <b>Military<sup>1</sup></b> |                    |                         |                    |
| Beaufort MCAS               | \$144,100,000      | \$21,776,800            | \$165,876,800      |
| Charleston AFB              | 155,600,000        | 155,240,900             | 310,840,900        |
| McEntire ANGS               | 42,300,000         | 9,221,600               | 51,521,600         |
| Shaw AFB                    | <u>206,900,000</u> | <u>10,498,400</u>       | <u>217,398,400</u> |
| Military Summary            | \$548,900,000      | \$196,737,700           | \$745,637,700      |
| <b>Total</b>                | \$772,390,700      | \$1,175,834,300         | \$1,948,225,000    |

Exhibit 4-10  
**Job Impacts by Type and Airport**  
 South Carolina Aviation Economic Impact Study

| Airport                         | Indirect and |         | Total  |
|---------------------------------|--------------|---------|--------|
|                                 | Direct       | Induced |        |
| <b>Commercial Service</b>       |              |         |        |
| Charleston International        | 836          | 12,844  | 13,680 |
| Columbia Metropolitan           | 1,526        | 5,014   | 6,540  |
| Florence Regional               | 135          | 521     | 656    |
| Greenville-Spartanburg Int'l    | 813          | 5,098   | 5,911  |
| Hilton Head                     | 93           | 1,345   | 1,438  |
| Myrtle Beach Int'l              | 690          | 11,956  | 12,646 |
| Total Commercial                | 4,093        | 36,778  | 40,871 |
| <b>General Aviation Service</b> |              |         |        |
| Aiken Municipal                 | 12           | 54      | 66     |
| Allendale County                | 3            | 13      | 16     |
| Anderson Regional               | 55           | 121     | 176    |
| Bamberg County                  | 0            | 1       | 1      |
| Barnwell County                 | 3            | 34      | 37     |
| Beaufort County                 | 4            | 86      | 90     |
| Berkeley County                 | 4            | 53      | 57     |
| Charleston Executive            | 25           | 103     | 128    |
| Cheraw Municipal                | 3            | 7       | 10     |
| Chester-Catawba Regional        | 4            | 11      | 15     |
| Columbia-Owens-Downtown         | 13           | 205     | 218    |
| Conway-Horry                    | 30           | 66      | 96     |
| Darlington County               | 13           | 62      | 75     |
| Dillon County                   | 1            | 0       | 1      |
| Donaldson Center                | 1,734        | 696     | 2,430  |
| East Cooper                     | 8            | 18      | 26     |
| Edgefield County                | 0            | 1       | 1      |
| Fairfield County                | 3            | 6       | 9      |
| Georgetown County               | 15           | 32      | 47     |
| Grand Strand                    | 45           | 92      | 137    |
| Greenville Downtown             | 134          | 319     | 453    |
| Greenwood County                | 4            | 36      | 40     |
| Hampton-Varnville               | 0            | 2       | 2      |
| Hartsville Regional             | 2            | 6       | 8      |
| Hemingway-Stuckey               | 0            | 0       | 0      |
| Hester Memorial                 | 0            | 1       | 1      |
| Holly Hill                      | 0            | 0       | 0      |

Exhibit 4-10 (continued)  
 Job Impacts by Type and Airport  
 South Carolina Aviation Economic Impact Study

| Airport                    | Direct       | Indirect and Induced | Total        |
|----------------------------|--------------|----------------------|--------------|
| Lake City Municipal        | 0            | 1                    | 1            |
| Lancaster County           | 4            | 39                   | 43           |
| Laurens County             | 2            | 4                    | 6            |
| Lee County                 | 0            | 3                    | 3            |
| Lexington County at Pelion | 2            | 7                    | 9            |
| Lowcountry Regional        | 7            | 62                   | 69           |
| Marion County              | 3            | 6                    | 9            |
| Marlboro County            | 1            | 7                    | 8            |
| McCormick County           | 0            | 1                    | 1            |
| Newberry County            | 4            | 7                    | 11           |
| Oconee County              | 12           | 95                   | 107          |
| Orangeburg Municipal       | 4            | 64                   | 68           |
| Pageland                   | 0            | 3                    | 3            |
| Pickens County             | 3            | 186                  | 189          |
| Ridgeland                  | 3            | 3                    | 6            |
| Robert F. Swinnie          | 0            | 7                    | 7            |
| Rock Hill-York County      | 31           | 56                   | 87           |
| Saluda County              | 8            | 4                    | 12           |
| Santee Cooper Regional     | 7            | 11                   | 18           |
| Spartanburg Dwntn. Mem.    | 47           | 143                  | 190          |
| St. George                 | 2            | 3                    | 5            |
| Summerville                | 7            | 42                   | 49           |
| Sumter                     | 6            | 40                   | 46           |
| Twin City                  | 7            | 2                    | 9            |
| Union County               | 4            | 6                    | 10           |
| Williamsburg Regional      | 7            | 3                    | 10           |
| Woodward Field             | <u>11</u>    | <u>40</u>            | <u>51</u>    |
| Gen. Aviation Summary      | 2,297        | 2,870                | 5,167        |
| Military <sup>1</sup>      |              |                      |              |
| Beaufort MCAS              | 3,455        | 882                  | 4,337        |
| Charleston AFB             | 3,755        | 4,372                | 8,127        |
| McEntire ANGS              | 1,020        | 327                  | 1,347        |
| Shaw AFB                   | <u>4,895</u> | <u>789</u>           | <u>5,684</u> |
| Military Summary           | 13,125       | 6,370                | 19,495       |
| Total                      | 19,515       | 46,018               | 65,533       |

### 4.5 Study Year Impacts vs. 1990 Study Impacts

The economic impact associated with aviation in South Carolina increased notably since the previous 1990 study. To understand the magnitude, the impact totals for 1990 are presented below in **Exhibit 4-11**; the format is the same as used to summarize the current study year impacts (see Exhibit 4-6).

Exhibit 4-11  
**Economic Impacts by Airport Type, Impact Measure and Impact Type – 1990**  
 South Carolina Aviation Economic Impact Study

| Impact Measure and Type | Civil Aviation     |                    |                    | Military             | Total                |
|-------------------------|--------------------|--------------------|--------------------|----------------------|----------------------|
|                         | Commercial         | General Aviation   | Total Civil        |                      |                      |
| <b>Output</b>           |                    |                    |                    |                      |                      |
| Direct                  | \$159,001,000      | \$62,809,000       | \$221,810,000      | \$589,595,000        | \$811,405,000        |
| Indirect                | 316,710,000        | 25,920,000         | 342,630,000        | 0                    | 342,630,000          |
| Multiplier              | <u>349,129,000</u> | <u>129,530,000</u> | <u>478,659,000</u> | <u>1,403,750,000</u> | <u>1,882,409,000</u> |
| Total                   | \$824,840,000      | \$218,259,000      | \$1,043,099,000    | \$1,993,345,000      | \$3,036,444,000      |
| <b>Earnings</b>         |                    |                    |                    |                      |                      |
| Direct                  | \$51,744,000       | \$39,134,000       | \$90,878,000       | \$479,081,000        | \$569,959,000        |
| Indirect                | 106,009,300        | 5,240,200          | 106,089,100        | 0                    | 106,089,100          |
| Multiplier              | <u>116,860,700</u> | <u>26,186,800</u>  | <u>143,047,500</u> | <u>155,856,000</u>   | <u>298,903,500</u>   |
| Total                   | \$274,614,000      | \$70,561,000       | \$345,175,000      | \$634,937,000        | \$980,112,000        |
| <b>Jobs</b>             |                    |                    |                    |                      |                      |
| Direct                  | 2,325              | 2,059              | 4,384              | 24,285               | 28,669               |
| Indirect                | 8,591              | 358                | 8,600              | 0                    | 8,600                |
| Multiplier              | <u>9,470</u>       | <u>1,789</u>       | <u>11,259</u>      | <u>10,333</u>        | <u>21,592</u>        |
| Total                   | 20,386             | 4,206              | 24,592             | 34,618               | 59,210               |

In 1990, the output (i.e., economic activity) impact of civil aviation airports (including both commercial service and general aviation) and military airfields totaled \$3.04 billion of which \$0.98 billion was paid in earnings to 59,210 jobs. Since 1990, many developments occurred at the airports and airfields. Specifically, one of the military airfields, the Myrtle Beach Air Force Base, closed, which notably reduced the impacts associated with military operations. Conversely, the commercial service operations at Myrtle Beach International grew tremendously resulting in huge increases of both at-airport (direct) impacts and off-airport (visitor) impacts. In addition, the location of an air cargo distribution facility at Columbia brought hundreds of additional jobs, while Donaldson Center and many other general aviation airports continued to grow. Further, the inter-industry relationships captured in the multipliers changed over the 15-year period with some industries yielding higher multipliers and some industries yielding lower multipliers.

Comparison of the impacts detailed in the 1990 and 2005 reports suggests that the total impact of civil aviation airports and military airfields grew: output impacts grew 43% from \$3.04 billion to \$4.34 billion, earnings nearly doubled from \$1.04 billion to \$1.95 billion, and jobs grew 11% from 59,210 to 65,533, as detailed in **Exhibit 4-12**. Since the monetary impacts are not adjusted for inflation<sup>8</sup>, comparison is difficult; for this and other reasons, jobs are considered a better overall factor for comparison purposes.

Exhibit 4-12  
**Economic Impact Changes – 1990 vs. 2005**  
 South Carolina Aviation Economic Impact Study

|                                     | Output        | Earnings      | Jobs   |
|-------------------------------------|---------------|---------------|--------|
| <b>Civil Aviation</b>               |               |               |        |
| <b>Commercial Aviation</b>          |               |               |        |
| 2005 Study                          | 2,524,434,300 | 1,024,575,800 | 40,871 |
| 1990 Study                          | 824,840,000   | 274,614,000   | 20,386 |
| Change %                            | 206.1%        | 273.1%        | 100.5% |
| <b>General Aviation</b>             |               |               |        |
| 2005 Study                          | 417,352,600   | 178,011,500   | 5,167  |
| 1990 Study                          | 218,259,000   | 70,561,000    | 4,206  |
| Change %                            | 91.2%         | 152.3%        | 22.8%  |
| <b>Total Civil Aviation</b>         |               |               |        |
| 2005 Study                          | 2,941,786,900 | 1,202,587,300 | 46,038 |
| 1990 Study                          | 1,043,099,000 | 345,175,000   | 24,592 |
| Change %                            | 182.0%        | 248.4%        | 87.2%  |
| <b>Military</b>                     |               |               |        |
| 2005 Study                          | 1,401,678,600 | 745,637,700   | 19,495 |
| 1990 Study                          | 1,993,345,000 | 634,937,000   | 34,618 |
| Change %                            | -29.7%        | 17.4%         | -43.7% |
| <b>Total (Civil &amp; Military)</b> |               |               |        |
| 2005 Study                          | 4,343,465,500 | 1,948,225,000 | 65,533 |
| 1990 Study                          | 3,036,444,000 | 980,112,000   | 59,210 |
| Change %                            | 43.0%         | 98.8%         | 10.7%  |

Breakdown of Civil Aviation versus Military job impact changes shows a striking difference. Aviation related jobs at military airfields fell 43.7%, due mainly to the closure of the Myrtle Beach Air Force Base, changes in personnel levels at other airfields and different (i.e. lower) military-related multipliers. Conversely, aviation related jobs at civil aviation airports rose 87.2%, due to increased commercial passenger and cargo operations and increased corporate activity at general aviation airports. Specifically, jobs at commercial airports doubled (100.5% growth) over the 15-year study period, while jobs at general airports rose 22.8%.

<sup>8</sup> According to the Consumer Price Index, prices changed 47.2% between the two study years.

## 4.6 Other Qualitative and Productivity Benefits

In addition to the quantitative impacts discussed above, aviation also generates a host of qualitative benefits and productivity benefits, which are difficult to quantify in terms of dollars and jobs. Nonetheless, such benefits do exist and are addressed in this study through surveys and industry references. This section addresses the issue of other benefits from three perspectives: (1.) general observable benefits associated with individual airport activity; (2.) national trends in business use of general aviation aircraft; and (3.) South Carolina businesses perspective of general aviation importance.

### 4.6.1 Qualitative Benefits

Qualitative benefits arise from regular airport activities that improve people's quality of life. While it is difficult to place a dollar value on such impacts, these benefits affect South Carolina's residents, business and visitors in a variety of ways. Types of qualitative benefits include health, welfare, or safety benefits; which arise from medical flights, police patrol, aerial forest fire fighting, pest control, traffic reporting, educational opportunities, economic development marketing, etc.

The airport management surveys conducted as part of this study identified specific examples of qualitative benefits supported at each South Carolina airport. The demographics of individual market areas and available facilities greatly influence each airport's need to support such benefits. Each airport's qualitative benefits are summarized in **Exhibit 4-13**. While this matrix is not all-encompassing, it does provide an overview of the diversity of benefits that airports support, beyond the creation of jobs, payroll, and output. In general, these categories can be summarized into eight categories

1. *Recreational/Gateway* – This category includes recreation flying and flying to airports for pursuing recreational activities in the airport's market area.
2. *Agricultural Spraying* – This category includes the use of aircraft to apply agricultural fertilizers, pesticides or seeding applications.
3. *Corporate Use* – Many businesses rely on aircraft for conducting business. Businesses in an airport's market area may own, lease, charter, rent or have financial ownership interest in plane. Businesses from outside the State or local market area also rely on airpark to fly to conduct business.
4. *Air Cargo* – Many industries rely on air cargo. Airports with regularly scheduled air cargo service are identified.
5. *Law Enforcement* – This category includes law enforcement activity by federal, state and local agencies. It also includes prisoner transport activities.

Exhibit 4-13  
**Qualitative Activity Benefits**  
 South Carolina Aviation Economic Impact Study

|                                 | Recreational flying | Agricultural spraying | Corporate/business activity | Recreational gateway | Police/law enforcement | Prisoner transport | Military exercises/training | Career training/Flight instr. | Search & rescue/Civil Air Patrol | Physician/med. Transport | Med. shpmt./patient transfe | Forest firefighting | Aerial photography/survey | Traffic/news reporting | Air shows | Skydiving | Glider/soaring |
|---------------------------------|---------------------|-----------------------|-----------------------------|----------------------|------------------------|--------------------|-----------------------------|-------------------------------|----------------------------------|--------------------------|-----------------------------|---------------------|---------------------------|------------------------|-----------|-----------|----------------|
| <b>Airport</b>                  |                     |                       |                             |                      |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| <b>Commercial Service</b>       |                     |                       |                             |                      |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Charleston International        | ▲                   |                       | ■                           | ■                    | ■                      | ○                  | ■                           | ○                             | ○                                | ■                        | ○                           | ○                   | ▲                         | ■                      | ▲         |           |                |
| Columbia Metropolitan           | ■                   |                       | ■                           | ■                    | ■                      | ○                  | ■                           | ■                             | ■                                | ▲                        | ■                           | ○                   | ▲                         | ○                      | ○         |           |                |
| Florence Regional               | ■                   |                       | ■                           | ■                    | ■                      | ○                  | ▲                           | ■                             | ■                                | ■                        | ○                           | ○                   | ▲                         | ○                      | ■         |           |                |
| Greenville-Spartanburg Int'l    | ▲                   |                       | ■                           | ▲                    | ■                      | ○                  | ○                           | ▲                             | ▲                                | ▲                        | ▲                           | ○                   | ▲                         | ○                      | ○         |           |                |
| Hilton Head                     | ■                   |                       | ■                           | ■                    | ■                      | ○                  | ○                           | ▲                             | ○                                | ▲                        | ○                           | ○                   | ▲                         | ○                      | ○         |           |                |
| Myrtle Beach Int'l              | ■                   |                       | ■                           | ■                    | ■                      | ○                  | ■                           | ○                             | ○                                | ▲                        | ○                           | ○                   | ▲                         | ○                      | ▲         |           |                |
| <b>General Aviation Service</b> |                     |                       |                             |                      |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Aiken Municipal                 | ■                   |                       | ■                           | ○                    |                        |                    | ■                           | ○                             |                                  |                          | ○                           |                     |                           |                        |           |           | ○              |
| Allendale County                | ▲                   | ■                     | ▲                           | ○                    |                        |                    |                             | ○                             |                                  |                          | ○                           |                     |                           |                        |           |           |                |
| Anderson Regional               | ■                   |                       | ■                           | ○                    | ■                      | ○                  | ■                           |                               | ▲                                | ○                        | ○                           |                     |                           | ○                      | ○         | ○         |                |
| Bamberg County                  | ○                   |                       | ▲                           | ○                    |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Barnwell County                 | ▲                   | ○                     | ▲                           | ○                    |                        |                    | ▲                           | ○                             | ○                                | ▲                        |                             |                     |                           |                        |           | ○         |                |
| Beaufort County                 | ■                   | ▲                     | ■                           | ■                    | ▲                      | ○                  |                             | ○                             | ○                                | ○                        | ○                           |                     |                           |                        | ○         |           |                |
| Berkeley County                 | ▲                   |                       | ■                           | ○                    |                        |                    | ■                           | ○                             | ▲                                | ▲                        |                             |                     |                           |                        |           |           |                |
| Charleston Executive            | ■                   | ▲                     | ■                           | ▲                    |                        |                    |                             | ▲                             | ▲                                | ○                        | ○                           |                     |                           |                        |           |           |                |
| Cheraw Municipal                | ▲                   |                       | ▲                           | ○                    |                        |                    | ○                           | ○                             | ▲                                | ▲                        |                             |                     |                           |                        |           |           |                |
| Chester-Catawba Regional        | ▲                   |                       | ▲                           | ○                    |                        |                    | ○                           | ○                             | ▲                                | ▲                        |                             |                     |                           |                        |           |           | ■              |
| Columbia-Owens-Downtown         | ▲                   |                       | ▲                           | ■                    |                        | ○                  |                             | ▲                             | ▲                                | ▲                        |                             |                     |                           | ■                      | ○         | ○         |                |
| Conway-Horry                    | ▲                   |                       | ▲                           | ▲                    |                        |                    | ■                           | ○                             | ○                                | ○                        |                             |                     |                           |                        | ○         |           |                |
| Lexington County (Pelion)       | ▲                   |                       | ○                           | ○                    | ■                      |                    |                             |                               |                                  |                          |                             |                     | ○                         |                        |           |           |                |
| Darlington County               | ■                   |                       | ▲                           | ▲                    |                        |                    | ▲                           | ○                             |                                  |                          |                             |                     |                           |                        |           | ○         |                |
| Dillon County                   | ■                   | ○                     | ○                           | ○                    |                        |                    | ■                           |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Donaldson Center                | ■                   |                       | ■                           | ○                    |                        |                    | ▲                           | ○                             | ○                                | ○                        | ○                           |                     |                           |                        | ○         |           |                |
| East Cooper                     | ■                   |                       | ▲                           | ○                    |                        |                    | ■                           | ○                             | ○                                | ○                        | ○                           |                     |                           |                        | ○         | ○         |                |
| Edgefield County                | ■                   | ○                     | ○                           | ○                    |                        |                    |                             |                               |                                  |                          |                             |                     | ○                         |                        |           |           |                |
| Fairfield County                | ■                   |                       | ▲                           | ○                    |                        |                    | ▲                           |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Georgetown County               | ■                   | ■                     | ■                           | ▲                    |                        |                    | ▲                           | ○                             | ○                                | ○                        | ○                           |                     |                           |                        |           |           |                |
| Grand Strand                    | ■                   |                       | ■                           | ■                    | ▲                      | ○                  | ▲                           | ▲                             | ▲                                | ▲                        |                             |                     | ▲                         |                        |           | ○         |                |
| Greenville Downtown             | ■                   |                       | ■                           | ▲                    | ■                      | ○                  | ○                           | ▲                             | ▲                                | ▲                        |                             |                     | ▲                         | ■                      | ○         |           |                |
| Greenwood County                | ■                   |                       | ■                           | ○                    | ▲                      | ○                  |                             | ▲                             | ○                                | ○                        |                             |                     |                           |                        |           |           |                |
| Hampton-Varnville               | ○                   |                       |                             |                      |                        |                    | ▲                           | ○                             | ○                                | ○                        |                             |                     |                           |                        |           | ○         |                |
| Hartsville Regional             | ■                   | ■                     | ▲                           | ○                    |                        |                    | ▲                           | ○                             | ○                                | ○                        | ○                           |                     |                           |                        |           |           | ○              |
| Hemingway-Stuckey               |                     |                       |                             |                      |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Hester Memorial                 | ▲                   |                       |                             |                      |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Holly Hill                      | ▲                   |                       |                             | ○                    |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Lake City Municipal             | ▲                   |                       | ○                           | ○                    |                        |                    |                             | ▲                             | ○                                | ○                        | ○                           |                     |                           |                        |           |           |                |
| Lancaster County                | ■                   |                       | ▲                           | ○                    |                        |                    | ▲                           | ○                             | ○                                | ○                        |                             |                     |                           |                        | ○         |           |                |
| Laurens County                  | ▲                   |                       | ▲                           | ○                    |                        |                    | ▲                           | ○                             |                                  |                          |                             |                     |                           |                        |           | ○         |                |
| Lee County                      | ▲                   |                       |                             |                      |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Lowcountry Regional             | ▲                   | ▲                     | ■                           | ○                    |                        |                    | ▲                           | ▲                             | ○                                | ○                        | ○                           |                     |                           |                        | ○         | ■         | ○              |
| Marion County                   | ▲                   |                       | ▲                           | ○                    |                        |                    | ○                           | ▲                             | ○                                | ○                        | ▲                           | ▲                   |                           |                        |           |           |                |
| Marlboro County                 | ▲                   | ▲                     | ▲                           | ○                    |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           | ○         | ○              |
| McCormick County                | ▲                   |                       | ▲                           | ○                    |                        |                    |                             |                               |                                  | ○                        | ○                           |                     |                           |                        |           |           |                |
| Newberry County                 | ▲                   |                       | ▲                           | ○                    |                        |                    | ▲                           | ○                             | ▲                                | ○                        | ■                           |                     |                           |                        |           | ○         |                |
| Oconee County                   | ■                   |                       | ■                           | ▲                    |                        |                    | ■                           | ○                             | ○                                | ○                        | ○                           |                     |                           | ○                      | ○         | ■         | ○              |
| Orangeburg Municipal            | ■                   |                       | ■                           | ○                    |                        |                    | ▲                           | ○                             | ○                                | ○                        | ▲                           |                     |                           |                        |           |           |                |
| Pageland                        | ▲                   |                       | ▲                           | ○                    |                        |                    |                             |                               | ▲                                | ▲                        |                             |                     |                           |                        |           |           |                |
| Pickens County                  | ▲                   |                       | ▲                           | ▲                    | ■                      | ○                  | ▲                           | ○                             | ○                                | ○                        |                             |                     |                           |                        | ○         |           |                |
| Ridgeland                       | ■                   |                       | ○                           | ○                    |                        |                    | ▲                           | ○                             |                                  |                          | ■                           |                     |                           |                        |           |           | ■              |
| Robert F. Swinnie               | ▲                   |                       | ○                           | ○                    |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Rock Hill-York County           | ■                   |                       | ○                           | ○                    |                        |                    | ■                           | ○                             | ○                                | ○                        |                             |                     |                           |                        | ○         |           |                |
| Saluda County                   | ▲                   |                       | ○                           | ○                    | ■                      | ○                  | ▲                           |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Santee Cooper Regional          | ▲                   |                       | ▲                           | ○                    | ○                      |                    |                             |                               |                                  |                          |                             | ○                   | ▲                         |                        |           |           | ■              |
| Spartanburg Dwntn. Mem.         | ▲                   |                       | ■                           | ○                    | ■                      | ○                  | ▲                           | ▲                             | ▲                                | ▲                        |                             |                     | ▲                         | ▲                      | ○         |           | ▲              |
| St. George                      | ▲                   |                       | ○                           | ○                    |                        |                    |                             |                               |                                  |                          |                             | ○                   |                           |                        |           |           | ■              |
| Summerville                     | ■                   |                       | ■                           | ○                    |                        |                    |                             |                               |                                  | ○                        | ○                           |                     |                           |                        |           |           | ○              |
| Sumter                          | ■                   | ▲                     | ■                           | ○                    |                        |                    | ■                           | ○                             | ○                                | ○                        | ■                           |                     |                           |                        | ○         | ▲         | ○              |
| Twin City                       | ▲                   | ▲                     | ○                           | ○                    |                        |                    |                             |                               |                                  | ○                        | ○                           |                     |                           |                        |           |           | ○              |
| Union County                    | ▲                   |                       | ○                           | ○                    |                        |                    |                             |                               | ○                                | ○                        | ▲                           |                     |                           | ○                      |           |           | ○              |
| Williamsburg Regional           | ▲                   | ▲                     | ▲                           | ○                    |                        |                    |                             |                               |                                  |                          |                             |                     |                           |                        |           |           |                |
| Woodward Field                  | ■                   |                       | ■                           | ▲                    |                        |                    | ▲                           |                               |                                  |                          |                             |                     | ○                         |                        | ▲         |           |                |

6. *Military* – Military activities includes military exercises and flight training activity.
7. *Emergency Access* – Emergency access includes grassland and forest firefighting, search and rescue activity. as well as wildlife management.
8. *Medical* – This category includes medical evacuation of patients via air ambulance, travel by physicians via aircraft to hold clinics at rural hospitals, and the use of aircraft for medical shipments.

Note that the indicated activity levels are based on airport management observations, and should not necessarily be viewed as predominate aviation activities at the respective airport.

#### **4.6.2 Business Use of South Carolina Airports**

Many businesses throughout the U.S. depend on commercial airlines as well as on general aviation aircraft to improve productivity and efficiency. Previous report sections quantified the economic impacts associated with the aviation as well as the qualitative health, welfare, and safety benefits of South Carolina's publicly owned airports and military airfields. But these measures alone do not represent the full spectrum of benefits that the State derives from the day-to-day operation of its airport system. Many businesses realize valued-added air transport benefits from increased efficiency. This subsection discusses the additional benefits that non-aviation businesses in South Carolina gain from the use of the State's airport system.

Commercial Airline Service – Today's economy presents business opportunities at any time, anywhere. To remain competitive and take advantage of potential opportunities, South Carolina must be able to move people and products anywhere in the world safely, quickly, and conveniently. Commercial air transport is the preeminent means for doing so. Commercial passenger airline service in South Carolina helps support its competitive advantage in key industries, such as coastal tourism and Upstate manufacturing. For this reason, the overall benefit of South Carolina's airline-served airports is enormous and goes beyond the transport industry impacts detailed in this report. Unfortunately, no widely accepted method has yet been developed to quantify the dollar and job impacts of businesses that depend on air transport. Nonetheless, businesses are keenly aware of the inherent benefits of air transport, and hence base investment decisions accordingly.

General Aviation – Many of the nation's leading employers that use general aviation as a business tool are members of the National Business Aircraft Association (NBAA). The NBAA's Business Aviation Fact Book 2004 indicates that approximately 75 percent of all businesses included in the Fortune 500 operate general aviation aircraft. In addition, 92 of the Fortune 100 companies operate general aviation aircraft. A detailed analysis conducted for NBAA in 2004 also indicated that among the Fortune 500 there were more than twice as many companies operating general aviation aircraft as non-operators.

Business use of general aviation aircraft ranges from small single-engine aircraft rental to multiple aircraft corporate fleets supported by dedicated flight crews and mechanics. The use of general aviation aircraft enables employers to efficiently transport personnel and air cargo. Businesses use general aviation aircraft to link multiple office locations and to reach existing and potential customers. Small to mid-size company use of business aircraft escalated during the emergence of various chartering, leasing, time-sharing, interchange agreements, partnerships, and management contracts. Fractional ownership arrangements also experienced recent rapid growth. The NBAA estimated that between 2000 and 2004 the number of companies and individuals indicating fractional ownership increased 62% from 3,834 to 6,217.

Regardless of who owns the aircraft or what type of aircraft is flown, businesses increasingly choose to use general aviation because it provides safe, efficient, flexible, and reliable transport. Of all the benefits provided to business by general aviation, flexibility is the highest ranked factor by all businesses using general aviation aircraft. Many reasons exist for why businesses use general aviation in their day-to-day operation, NBAA contacted businesses identified the following seven key factors:

1. Employee Time Savings
2. Increased Productivity
3. Minimization of Non-business Hours Away from Home
4. Assurance of Industrial Security
5. Maximization of Personal Safety and Peace of Mind
6. More Control of Business Travel Scheduling
7. Better Facilitation of the Entrepreneurial Spirit

The use of general aviation as a business tool adds to productivity and to the bottom line. According to an NBAA survey of key Forbes and Fortune 500 companies, those businesses that use general aviation aircraft routinely and significantly outperform businesses that do not. Performance indicators such as annual sales, number of employees, value of assets, and annual income are significantly higher for employers using general aviation aircraft.

#### **4.6.3 Measuring Value-Added Impacts**

Approximately 3,000 businesses throughout South Carolina were surveyed to assess their dependence on aviation. The 3,000 businesses were selected from a pool of businesses in the manufacturing, transportation, telecommunications, engineering/consulting, and utility sectors. The sectors targeted in this study represent those with greater propensities to use airline service and general aviation. Approximately 10% of the surveys (298) were returned, the results of which are summarized below.

South Carolina Business Use of Airports – The survey was generally oriented towards gaining information on business use of aviation. Survey results indicate that many businesses depend on South Carolina’s system of airports on a daily basis. Without access to general aviation and airline-served airports, businesses indicate a need to cut employment or possibly relocate to other states. Approximately 22% of all survey respondents indicate that their company owns, has fractional ownership, leases, or charters general aviation aircraft. In addition, approximately 37% of the respondents indicate their customers or suppliers travel by general aviation to visit the surveyed company. Surveyed businesses also indicate that commercial airline service is vital for employees who travel to conduct business, as well as for customers/clients who visit.

South Carolina Business Dependence on Airports – Considering the number and variety of businesses in the State, it is impossible to quantify the value-added benefit that South Carolina businesses derive from their use of the airport system. It is possible, however, to evaluate or rank aviation’s importance to some non-aviation business sectors. To do so surveyed firms were asked: (1.) about their reliance on both general aviation and commercial air service in terms of employment and sales; and (2.) to rank various location factors. The results are summarized below:

- *Employment Reliance* – Each respondent to the non-aviation business survey was asked to estimate the percentage of employment reduction they would anticipate if, for some reason, general aviation and commercial airline service ceased to be available. Statewide, surveyed employers estimated a 12 percent reduction in their current employment levels without commercial airline service. The overall results of the business survey are as follows:
  - 97% of the respondents use South Carolina’s commercial airports.
  - 40% of their clients use South Carolina’s general aviation airports.
  - 15% stated that at least half of their sales depended on commercial aviation.
  - 19% use general aviation aircraft for business by either owning, leasing, or chartering.
  - 23% indicated that either a portion of their sales or employees depend on general aviation.
  - Employees take about 47,750 annual commercial service airline trips, and their suppliers and clients make a about 31,795 trips through South Carolina airports.

*Location Factor Ranking* – The final section of the business survey asked respondents to rank the importance of various factors that they would consider if they contemplated relocating or expanding. Overall, the availability of an airport with airline service ranked fourth, and proximity to general aviation facilities ranked eighth out of the 13 factors considered. Highway access,

labor supply, and availability of a trained workforce ranked first, second, and third, respectively. The rankings of the 13 location factors included in the survey are as follows:

1. Convenient highway access
2. Available labor supply
3. Availability of a trained workforce
- 4. *A commercial service airport***
5. Tax incentives
6. Proximity of Suppliers
7. Academic or cultural centers
- 8. *A general aviation airport***
9. Urban business district
10. Raw Materials
11. Natural Resources
12. Water Transportation Facilities
13. Rail transportation facilities
14. Historic location

#### **4.6.4 Qualitative Impact Summary**

In summary, South Carolina airports help support and improve the quality of life for all state residents, businesses, and visitors. Airports do so by supporting many activities and services related to one's health, welfare and safety, as well as environmental management. Specifically, study information gathered indicates that South Carolina airports support recreational activities, provide gateways to many communities and tourist attractions, facilitate air cargo and air freight shipments, assist in law enforcement, support the military and its operations, expedite emergency access, and address medical needs.

The qualitative benefits associated with South Carolina's airports cannot be quantitatively assessed as those direct, indirect, and multiplier impacts previously documented throughout this study. Nonetheless, the qualitative benefits do exist and are extremely important. Their relative importance becomes clear when one considers the fact that the purpose of aviation transport is to help support the personal and business needs, which drive South Carolina's economy.

---

# **Chapter 5: Tax and Revenue Analysis**

---

## Chapter 5. Tax and Revenue Analysis

Aviation in South Carolina generates a variety of tax revenues from sales, property and income that contribute to both state and local government coffers. These include tax revenues generated from commercial airlines, aircraft owners, aviation employees and aviation-oriented industries in South Carolina. This chapter compares South Carolina's aviation-related tax structure with other states, estimates tax revenues collected directly from aviation activity in South Carolina, and compares these collection with public contributions. Lastly, the state income tax receipts associated with the economic impacts presented in the previous section are also quantified.

### 5.1 Aviation Taxes and Fees in the U.S.

States and local counties/cities assess a wide range of taxes and fees across the nation on aviation-related products and services. This analysis evaluates these taxes under three broad categories: (1.) sales taxes on aircraft, parts and services; (2.) personal property taxes and registration fees; and (3.) avgas and jet fuel taxes. The national analysis of aviation-oriented taxes provides a backdrop from which to compare South Carolina's tax rates and its effect on based aircraft and business location attractiveness.

#### 5.1.1 Sales Taxes on Aircraft, Parts and Services

State and local taxes are often levied on the sale of aircraft, aircraft parts and services. These taxes often reflect general sales taxes on goods and services. South Carolina's statewide sales tax on aircraft is 5.0% with a very low ceiling of \$300. In addition, local jurisdiction may add an additional 1.0%-2.0% sales tax, which is also subject to the \$300 tax payment ceiling.

As shown below in **Exhibit 5-1**, four states, Alaska, Montana, New Hampshire, and Oregon have no state sales tax on aircraft/parts/services, however, local jurisdictions in Alaska do levy sales taxes. Including both state and median local sales taxes, South Carolina appears to have a combined average tax rate (6.0%)<sup>9</sup>, which is higher than the national average (5.625%). However, the \$300 sales tax cap in South Carolina results in foregone tax revenues on all sales over \$6,000. Further, South Carolina's median total tax rate (6.0%) is lower than most other states in the region with Tennessee having the highest at 9.125%; and North Carolina at 7.5%, Florida at 7.0%, and Georgia at 6.563%.

Given the \$300 sales tax cap, the effective sales tax on a \$100,000 aircraft is 0.3% and only 0.03% on a \$1.0 million aircraft. Due to the sales tax cap, the *effective* sales tax rate in South Carolina is seen as extremely low.

---

<sup>9</sup> Varies by county between 5.0% to 7.0%

Exhibit 5-1

**State and Local Sales Tax Rates on Aircraft, Parts & Services – by State**  
 South Carolina Aviation Economic Impact Study

| State          | State         | Local                 | Total (Range)         | Total (Median) |
|----------------|---------------|-----------------------|-----------------------|----------------|
| TN             | 7.000%        | 1.500 - 2.750% (4)    | 8.500 - 9.750%        | 9.125%         |
| AR             | 6.000%        | 1.000 - 4.000%        | 7.000 - 10.000%       | 8.500%         |
| IL             | 6.250%        | 0.000 - 3.750%        | 6.250 - 10.000%       | 8.125%         |
| CA             | 7.250%        | 0.500 - 1.250%        | 7.750 - 8.500%        | 8.125%         |
| AZ             | 5.600%        | 1.000 - 3.500%        | 6.600 - 9.100%        | 7.850%         |
| WA             | 6.500%        | 0.500 - 1.700%        | 7.000 - 8.200%        | 7.600%         |
| NC             | 7.500%        | None (4)              | 7.500%                | 7.500%         |
| TX             | 6.250%        | 0.000 - 2.000%        | 6.250 - 8.250%        | 7.250%         |
| MN             | 6.500%        | 0.000 - 1.000%        | 6.500 - 7.500%        | 7.000%         |
| NV             | 6.500%        | 0.000 - 1.000% (2)    | 6.500 - 7.500%        | 7.000%         |
| RI             | 7.000%        | None                  | 7.000%                | 7.000%         |
| FL             | 6.000%        | 0.500 - 1.500% (1)    | 6.500 - 7.500%        | 7.000%         |
| OH             | 6.000%        | 0.250 - 1.500%        | 6.250 - 7.500%        | 6.875%         |
| OK             | 3.250%        | 3.250 - 3.875%        | 6.500 - 7.125%        | 6.813%         |
| KS             | 5.300%        | 0.850 - 1.975%        | 6.150 - 7.275%        | 6.713%         |
| NY             | 4.250%        | 0.000 - 4.625%        | 4.250 - 8.875%        | 6.563%         |
| GA             | 4.000%        | 1.000 - 4.000%        | 5.000 - 8.000%        | 6.500%         |
| NE             | 5.500%        | 0.500 - 1.500%        | 6.000 - 8.000%        | 6.500%         |
| PA             | 6.000%        | 0.000 - 1.000% (3)    | 6.000 - 7.000%        | 6.500%         |
| UT             | 4.750%        | 1.000 - 2.250%        | 5.750 - 7.000%        | 6.375%         |
| NM             | 5.000%        | 0.375 - 2.813%        | 5.375 - 7.813%        | 6.279%         |
| ID             | 6.000%        | 0.000 - 0.500%        | 6.000 - 6.500%        | 6.250%         |
| IA             | 5.000%        | 0.000 - 2.000%        | 5.000 - 7.000%        | 6.000%         |
| CT             | 6.000%        | None                  | 6.000%                | 6.000%         |
| IN             | 6.000%        | None                  | 6.000%                | 6.000%         |
| KY             | 6.000%        | None                  | 6.000%                | 6.000%         |
| MI             | 6.000%        | None                  | 6.000%                | 6.000%         |
| NJ             | 6.000%        | None                  | 6.000%                | 6.000%         |
| SC             | 5.000%        | 0.000 - 2.000% (4)    | 5.000 - 7.000%        | 6.000%         |
| VT             | 6.000%        | None                  | 6.000%                | 6.000%         |
| WV             | 6.000%        | None                  | 6.000%                | 6.000%         |
| WI             | 5.000%        | 0.500 - 1.000%        | 5.500 - 6.000%        | 5.750%         |
| MO             | 4.225%        | 0.500 - 2.250%        | 4.725 - 8.475%        | 5.600%         |
| SD             | 4.000%        | 1.000 - 2.000%        | 5.000 - 6.000%        | 5.500%         |
| CO             | 2.900%        | 1.000 - 4.000%        | 3.900 - 6.900%        | 5.400%         |
| WY             | 4.000%        | 0.500 - 2.000%        | 4.500 - 6.000%        | 5.250%         |
| MA             | 5.000%        | None                  | 5.000%                | 5.000%         |
| MD             | 5.000%        | None                  | 5.000%                | 5.000%         |
| ME             | 5.000%        | None                  | 5.000%                | 5.000%         |
| ND             | 5.000%        | None                  | None                  | 5.000%         |
| AL             | 2.000%        | 0.019 - 3.000%        | 2.010 - 5.000%        | 4.450%         |
| AK             | 0.000%        | 1.000 - 7.000%        | 1.000 - 7.000%        | 4.000%         |
| HI             | 4.000%        | None                  | 4.000%                | 4.000%         |
| LA             | 4.000%        | n/a                   | n/a                   | 4.000%         |
| MS             | 3.000%        | None                  | None                  | 3.000%         |
| VA             | 2.000%        | n/a                   | n/a                   | 2.000%         |
| DE             | 0.384%        | None                  | 0.384%                | 0.384%         |
| MT             | 0.000%        | None                  | None                  | 0.000%         |
| NH             | 0.000%        | None                  | 0.000%                | 0.000%         |
| OR             | 0.000%        | None                  | 0.000%                | 0.000%         |
| <b>Average</b> | <b>4.718%</b> | <b>0.665 - 2.452%</b> | <b>5.383 - 7.170%</b> | <b>5.626%</b>  |

(1) Applied to the first \$5,000 only; (2) Local school and city/county relief tax is included in the State Tax of 6.5%; (3) In Philadelphia and Allegheny Counties only; (4) Total sales taxes, including State sales tax capped at \$300 in SC. \$6,000 in TN and \$1,500 in NC..

Source: Conklin & deDecker "State Tax Guide for Aviation, 2005" and EDR Group.

**5.1.2 Personal Property and Registration Fees**

States typically charge either an aircraft property tax or an aircraft registration fee on non-commercial aircraft. These general aviation property taxes and registration fees vary notably between states, thereby complicating comparisons. Among the 48 continental United States, only 16 levy personal property tax on general aviation aircraft, including South Carolina; the mill rates<sup>10</sup> and assessed valuation basis is summarized by state in **Exhibit 5-2**.

Exhibit 5-2  
**General Aviation Aircraft Property Tax Rates – by State**  
 South Carolina Aviation Economic Impact Study

| State | Assessment Rate / Basis | Millage Rates |               |             |
|-------|-------------------------|---------------|---------------|-------------|
|       |                         | State         | County*       | Local*      |
| AL    | 20% market value        | 0.065         | 0.280         | 0.100       |
| AR    | 20% market value        | 0.30 - 0.55   | None          | None        |
| CA    | Full value              | n/a           | n/a           | n/a         |
| GA    | 40% market value        | None          | 0.170 - 0.540 | None        |
| KS    | 11.50%                  | 0.215         | 1.17          | None        |
| KY    | Full value              | 0.136         | None          | None        |
| LA    | N/a                     | None          | 1.01          | None        |
| MO    | 33.3% market value      | None          | 0.506         | None        |
| NE    | Net book value          | n/a           | n/a           | n/a         |
| NV    | 35% of full value       | None          | 0.290         | None        |
| NC    | Full value              | None          | 0.059 - 0.141 | None        |
| SC    | <b>Full value</b>       | <b>None</b>   | <b>0.282</b>  | <b>None</b> |
| TN    | 25 - 50%**              | None          | 0.140 - 0.630 | None        |
| VA    | Av. Loan value          | n/a           | n/a           | n/a         |
| WV    | 60% market value        | n/a           | n/a           | n/a         |
| WY    | 9.5-11.5% of value      | n/a           | n/a           | n/a         |

Source: Conklin & deDecker "State Tax Guide for General Aviation, 2005" and EDR Group

n/a = not avail

\* Estimated average.

\*\* Dependent on property type (i.e., farm, personal business, commercial, etc.)

Alternatively, a few states rely on annual or biennial general aviation aircraft registration fees in lieu of property taxes (with the exception of Virginia which levies both a personal property tax and annual registration fee). Six states, Arizona, Hawaii, Illinois, Indiana, Maine, and Ohio, charge an annual flat fee, ranging from \$5 in Arizona to \$100 in Ohio. Other states have a rate schedule with fees determined by aircraft weight or engine/wing type, while the remaining states calculate registration fees on a per pound basis. Specific state information is shown below in **Exhibit 5-3**. Interestingly, registration fees are not applied in the southeast (excluding Virginia).

<sup>10</sup> Tax per dollar of assessed value. 1 mill = 0.001 cents.

Exhibit 5-3  
**General Aviation Aircraft Registration Fees – by State**  
 South Carolina Aviation Economic Impact Study

| State | Lowest Rate                                    |  | Highest Rate                                   |   |
|-------|--|--|--|---|
|       | Amount   | Fee Basis  | Amount   | Fee Basis                                       |
| AZ    | \$5  | n/a  | \$5  | n/a   |
| CT    | \$90   | <3,000 lbs                                       | \$2,500  | >12,500 lbs.                                    |
| HI    | \$10   | n/a  | \$10   | n/a   |
| ID    | \$0.01/lb gross aircraft weight                | n/a  | \$200  | n/a   |
| IL    | \$10   | n/a  | \$10   | n/a   |
| IN    | \$10   | n/a  | \$10   | n/a   |
| IA    | 1% of mfg list price, \$5,000 max              | 1st year of registration                         | 0.25 of 1% of mfg list price                   | 4th year of reg. and thereafter                 |
| ME    | \$10   | n/a  | \$10   | n/a   |
| MA    | \$75   | <2,000 lbs.                                      | \$225  | >12,500 lbs.                                    |
| MI    | \$0.01/lb gross weight or max. takeoff weight* | n/a  | \$0.01/lb gross weight or max. takeoff weight* | n/a   |
| MN    | 1% of mfg list price, \$5,000 max              | 1st year of registration                         | 0.25 of 1% of mfg list price                   | 6th year of reg. and thereafter                 |
| MS    | \$25   | <3,600 lbs.                                      | \$2,500  | >100,000 lbs.                                   |
| MT    | \$25   | Single engine, fixed gear, <200hp, 30+ years old | \$3,000  | Jet engine, no propeller, 0-5 years old         |
| NH    | \$48   | Resident owner                                   | \$63   | Non-resident owner                              |
| NM    | \$0.01/lb.                                     | Planes 0-1 yr old                                | \$0.02/lb.                                     | Planes 5+ years old                             |
| ND    | \$15   | <500 lbs, >10 years old                          | \$3,000  | 100,000 lbs, <5 years old                       |
| OH    | \$100  | n/a  | \$100  | n/a   |
| OK    | \$20   | Single engine, <1,750 lbs.                       | \$15,000                                       | Turbo-jet, >100,000 lbs.                        |
| OR    | \$50   | Fixed wing or piston engine                      | \$187  | Ex-military/air-carrier multiengine or turbojet |
| RI    | \$30   | <2,000 lbs.                                      | \$250  | >12,500 lbs.                                    |
| SD    | \$12.50 / \$25.00                              | 0-9 yrs/10+ yrs (0-1,500 lbs)                    | \$150 / \$300                                  | 0-9 yrs/10+ yrs (15,000 lbs)                    |
| UT    | \$25   | Propeller driven                                 | \$10,000                                       | Jet, >20,000 lbs.                               |
| VA    | \$5  | noncommercial                                    | \$100  | commercial fleet                                |
| WA    | \$65   | Single engine, fixed wing                        | \$140  | Turbo-jet, multi-engine fixed wing              |
| WI    | \$70   | <3,500 lbs.                                      | \$3,125  | >10,000 lbs.                                    |

\*Whichever is greater.

For comparative summary purposes, both property taxes and registration fees are identified in **Exhibit 5-4**, which indicates that eight states have neither aircraft property taxes or registration fees. Six of these states (DE, MD, NJ, NY, PA and VT) are located in the northeast; only one of the other states, Florida, is located in the southeast.

Exhibit 5-4  
**General Aviation Aircraft Property Tax & Registration Fee Summary – by State**  
 South Carolina Aviation Economic Impact Study

| State | Property Taxes |        |       | Registration Fees | State | Property Taxes |        |       | Registration Fees |
|-------|----------------|--------|-------|-------------------|-------|----------------|--------|-------|-------------------|
|       | State          | County | Local |                   |       | State          | County | Local |                   |
| AL    | Yes            | Yes    | Yes   | None              | MT    | None           | None   | None  | Yes               |
| AK    | n/a            | n/a    | n/a   | None              | NE    | n/a            | n/a    | n/a   | None              |
| AZ    | None           | None   | None  | Yes               | NV    | None           | Yes    | None  | None              |
| AR    | Yes            | None   | None  | None              | NH    | None           | None   | None  | Yes               |
| CA    | None           | 100    | n/a   | None              | NJ    | None           | None   | None  | None              |
| CO    | None           | None   | None  | None              | NM    | None           | None   | None  | Yes               |
| CT    | None           | None   | None  | Yes               | NY    | None           | None   | None  | None              |
| DE    | None           | None   | None  | None              | NC    | None           | Yes    | None  | None              |
| FL    | None           | None   | None  | None              | ND    | None           | None   | None  | Yes               |
| GA    | None           | Yes    | None  | None              | OH    | None           | None   | None  | Yes               |
| HI    | None           | None   | None  | Yes               | OK    | None           | None   | None  | Yes               |
| ID    | None           | None   | None  | Yes               | OR    | None           | None   | None  | Yes               |
| IL    | None           | None   | None  | Yes               | PA    | None           | None   | None  | None              |
| IN    | None           | None   | None  | Yes               | RI    | None           | None   | None  | Yes               |
| IA    | None           | None   | None  | Yes               | SC    | None           | Yes    | None  | None              |
| KS    | Yes            | Yes    | None  | None              | SD    | None           | None   | None  | Yes               |
| KY    | Yes            | None   | None  | None              | TN    | None           | Yes    | None  | None              |
| LA    | None           | Yes    | None  | None              | TX    | Yes            | Yes    | Yes   | None              |
| ME    | None           | None   | None  | Yes               | UT    | None           | None   | None  | Yes               |
| MD    | None           | None   | None  | None              | VT    | None           | None   | None  | None              |
| MA    | None           | None   | None  | Yes               | VA    | n/a            | n/a    | n/a   | Yes               |
| MI    | None           | None   | None  | Yes               | WA    | None           | None   | None  | Yes               |
| MN    | None           | None   | None  | Yes               | WV    | n/a            | n/a    | n/a   | None              |
| MS    | None           | None   | None  | Yes               | WI    | None           | None   | None  | Yes               |
| MO    | None           | Yes    | None  | None              | WY    | None           | Yes    | None  | None              |

Source: Conklin & deDecker "State Tax Guide for Aviation" and EDR Group.

In summary, South Carolina’s general aviation property taxes appear high compared to other states property tax/registration fee structure. South Carolina property taxes are detailed by county in section 5.2.1.

### 5.1.3 Sales and Excise Taxes on AvGas and Jet Fuel

Various sales and excise taxes are also levied on aviation fuels nationwide. The 5% state sales tax levied on other goods and services in South Carolina is also applied to the sales price of jet fuel and aviation gasoline (AvGas), the fuels used by most general aviation aircraft. Many states also levy an excise tax on the gallons of aviation fuel sold, which is not levied in South Carolina. These two distinct taxes, levied on sales amount and gallons pumped, complicate comparisons between states, as discussed below. The aviation fuel rates are summarized by tax type and state in **Exhibit 5-5**, and are referred to in the following discussion.

Sales Tax – Aviation fuel taxes often differ in a state between jet fuel and aviation gasoline (AvGas). Regarding AvGas, 16 states including South Carolina apply a general sales tax ranging from 4.0% to 6.5% of the sales price. At 5.0%, South Carolina's sales tax on AvGas falls right in the middle compared to the other 15 states; half have a higher rate than South Carolina and half have an equal or lower rate. Regarding jet fuel, 20 states including South Carolina levy a sales tax ranging from 3.0% (Colorado) to 7.25% (California). At 5.0 %, South Carolina is also firmly in the middle range.

Excise Tax – Though South Carolina is one of nine states that do not, most states (41) charge a special excise tax on AvGas ranging from \$0.001 to \$0.290 per gallon. In fact, 11 states charge *both* sales and excise taxes on AvGas. Similarly, South Carolina does not levy an excise tax on jet fuel, however 33 states do, including eight states that levy *both* a sales and excise tax. Excise taxes on jet fuel range from \$0.001 to \$0.070 per gallon.

Comparison Summary – The average tax for AvGas in 2004, including both sales and excise taxes, averaged an estimated \$0.124 per gallon. For aviation fuel the combined average is estimated at \$0.094 per gallon. It is important to note that several states in addition to South Carolina exempt commercial carriers from aviation fuel taxes, as discussed in the next subsection.

In addition to being 40% higher than the national average, South Carolina's tax per gallon on AvGas (\$0.174) is *slightly* higher than the total effective tax per gallon (including both sales and excise taxes) in Georgia (\$0.149) and North Carolina (\$0.157), over 150% greater than Florida (\$0.069) and Virginia (\$0.050). Similarly, South Carolina's current tax per gallon on jet fuel (\$0.154) is *slightly* higher than the effective tax per gallon in Tennessee (\$0.148), North Carolina (\$0.138) and Georgia (\$0.123), and is also 150% greater than Florida (\$0.069) and Virginia (\$0.050).

Exhibit 5-5  
**Sales and Excise Tax Rates on AvGas and Jet Fuel – by State**  
 South Carolina Aviation Economic Impact Study

| State          | AvGas Taxes                    |                                 |                                  | Jet Fuel Taxes                  |                            |                                  |
|----------------|--------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------|----------------------------------|
|                | Gas Tax Rate<br>(per \$ Sales) | Excise Tax Rate<br>(per Gallon) | Total<br>Tax/Gallon <sup>1</sup> | Fuel Tax Rate<br>(per \$ Sales) | Excise Tax<br>(per Gallon) | Total<br>Tax/Gallon <sup>2</sup> |
| AL             | 0%                             | \$0.027                         | \$0.027                          | 0%                              | \$0.009                    | \$0.009                          |
| AK             | 0%                             | \$0.047                         | \$0.047                          | 0%                              | \$0.032                    | \$0.032                          |
| AZ             | 0%                             | \$0.050                         | \$0.050                          | 0%                              | \$0.031                    | \$0.031                          |
| AR             | 6.000%                         | \$0                             | \$0.209                          | 6.000%                          | \$0                        | \$0.184                          |
| CA             | 0%                             | \$0.180                         | \$0.180                          | 7.250%                          | \$0.020                    | \$0.243                          |
| CO             | 0%                             | \$0.060                         | \$0.060                          | 3.000%                          | \$0.040                    | \$0.132                          |
| CT             | 0%                             | \$0                             | \$0                              | 0%                              | \$0                        | \$0                              |
| DE             | 0%                             | \$0.230                         | \$0.230                          | 0%                              | \$0                        | \$0                              |
| FL             | 0%                             | \$0.069                         | \$0.069                          | 0%                              | \$0.069                    | \$0.069                          |
| GA             | 4.000%                         | \$0.010                         | \$0.149                          | 4.000%                          | \$0                        | \$0.123                          |
| HI             | 4.000%                         | \$0.010                         | \$0.149                          | 4.000%                          | \$0.010                    | \$0.133                          |
| ID             | 0%                             | \$0.055                         | \$0.055                          | 0%                              | \$0.045                    | \$0.045                          |
| IL             | 6.250%                         | \$0.003                         | \$0.221                          | 6.250%                          | \$0.003                    | \$0.195                          |
| IN             | 6.000%                         | \$0.180                         | \$0.389                          | 6.000%                          | \$0                        | \$0.184                          |
| IA             | 0%                             | \$0.080                         | \$0.080                          | 0%                              | \$0.030                    | \$0.030                          |
| KS             | 5.300%                         | \$0                             | \$0.184                          | 5.300%                          | \$0                        | \$0.163                          |
| KY             | 0%                             | \$0.150                         | \$0.150                          | 6.000%                          | \$0                        | \$0.184                          |
| LA             | 4.000%                         | \$0.200                         | \$0.339                          | 4.000%                          | \$0                        | \$0.123                          |
| ME             | 5.000%                         | \$0.220                         | \$0.394                          | 0%                              | \$0.340                    | \$0.340                          |
| MD             | 0%                             | \$0.070                         | \$0.070                          | 0%                              | \$0.070                    | \$0.700                          |
| MA             | 0%                             | \$0.124                         | \$0.124                          | 0%                              | \$0.050                    | \$0.050                          |
| MI             | 6.000%                         | \$0.030                         | \$0.239                          | 6.000%                          | \$0.030                    | \$0.214                          |
| MN             | 0%                             | 0%                              | \$0                              | 0%                              | \$0                        | \$0                              |
| MS             | 0%                             | \$0.064                         | \$0.064                          | 0%                              | \$0.052                    | \$0.052                          |
| MO             | 4.225%                         | \$0.090                         | \$0.237                          | 4.255%                          | \$0                        | \$0.131                          |
| MT             | 0%                             | \$0.040                         | \$0.040                          | 0%                              | \$0.040                    | \$0.040                          |
| NE             | 0%                             | \$0.050                         | \$0.050                          | 0%                              | \$0.030                    | \$0.030                          |
| NV             | 0%                             | \$0.020                         | \$0.020                          | 0%                              | \$0.010                    | \$0.010                          |
| NH             | 0%                             | \$0.040                         | \$0.040                          | 0%                              | \$0.020                    | \$0.020                          |
| NJ             | 0%                             | \$0.040                         | \$0.040                          | 0%                              | \$0.020                    | \$0.020                          |
| NM             | 0%                             | \$0.170                         | \$0.170                          | 5.000%                          | 0%                         | \$0.154                          |
| NY             | 4.250%                         | \$0.146                         | \$0.294                          | 4.250%                          | \$0.056                    | \$0.186                          |
| NC             | 4.500%                         | \$0                             | \$0.157                          | 4.500%                          | \$0                        | \$0.138                          |
| ND             | 0%                             | \$0.080                         | \$0.080                          | 0%                              | \$0.080                    | \$0.080                          |
| OH             | 6.000%                         | \$0                             | \$0.209                          | 6.000%                          | 0%                         | \$0.184                          |
| OK             | 0%                             | \$0.001                         | \$0.001                          | 0%                              | \$0.001                    | \$0.001                          |
| OR             | 0%                             | \$0.090                         | \$0.090                          | 0%                              | \$0.010                    | \$0.010                          |
| PA             | 0%                             | \$0.041                         | \$0.041                          | 0%                              | \$0.018                    | \$0.018                          |
| RI             | 0%                             | \$0                             | \$0                              | 0%                              | \$0                        | \$0                              |
| SC             | 5.000%                         | \$0                             | \$0.174                          | 5.000%                          | \$0                        | \$0.154                          |
| SD             | 0%                             | \$0.060                         | \$0.060                          | 0%                              | \$0.040                    | \$0.040                          |
| TN             | 4.500%                         | \$0.010                         | \$0.167                          | 4.500%                          | \$0.010                    | \$0.148                          |
| TX             | 0%                             | \$0                             | \$0                              | 0%                              | \$0                        | \$0                              |
| UT             | 0%                             | \$0.090                         | \$0.090                          | 0%                              | \$0.090                    | \$0.090                          |
| VT             | 0%                             | \$0.290                         | \$0.290                          | 6.000%                          | \$0                        | \$0.184                          |
| VA             | 0%                             | \$0.050                         | \$0.050                          | 0%                              | \$0.050                    | \$0.050                          |
| WA             | 6.500%                         | \$0.050                         | \$0.276                          | 6.500%                          | \$0.050                    | \$0.250                          |
| WV             | 0%                             | \$0.049                         | \$0.049                          | 0%                              | \$0.049                    | \$0.049                          |
| WI             | 0%                             | \$0.060                         | \$0.060                          | 0%                              | \$0.060                    | \$0.060                          |
| WY             | 0%                             | \$0.050                         | \$0.050                          | 0%                              | \$0.050                    | \$0.050                          |
| <b>Average</b> | <b>1.631%</b>                  | <b>\$0.068</b>                  | <b>\$0.124</b>                   | <b>2.076%</b>                   | <b>\$0.030</b>             | <b>\$0.094</b>                   |

Source: Conklin & deDecker "State Tax Guide for Aviation" and www.airnav.com

Note: Fuel sales taxes are levied as a % on sales; excise taxes are levied as

<sup>1</sup>Assuming an average pre-tax price per gallon of \$3.48; <sup>2</sup>Assuming an average pre-tax price per gallon of \$3.07.

#### 5.1.4 Exemptions

A wide range of exemptions further complicate analysis of aviation-related taxes between states. These exemptions, as summarized in **Exhibit 5-6**, include common carrier sales/use taxes, personal property taxes, and aviation fuel taxes. The following discussion highlights key points, especially those relative to South Carolina.

Common Carrier Sales/Use – Exemptions are often given for aircraft used to transport people or property for a charge (e.g., “common carrier”) Some states require such aircraft to be used exclusively or significantly for commercial activity, versus others that may only require the aircraft to be certified as an air carrier. While no such exemptions are reported in South Carolina, they do apply for the other nearby southeastern states (NC, TN, GA, FL).

Personal Property – Of the 16 states that levy personal property taxes on aircraft, only three states (KS, KY, LA) report some form of exemption.

Aviation Fuels – A wide range of exemptions apply to both jet fuel and AvGas. *The exemption of jet fuel taxes for “transportation companies” in South Carolina, which includes commercial airlines, is particularly interesting since it is a potentially large revenue source.* Further, no such exemptions exist for the other nearby southeastern states (NC, TN, GA, FL) except Florida, which only exempts “export and international flights”. Given this commercial carrier exemption, South Carolina’s aviation fuel tax rates generate less on a total per gallon ratio than the other regional states despite having higher taxes (see section 5.1.3).

Another exemption concern regarding South Carolina jet fuel taxes concerns the definition of “transportation companies”. While no evidence was found that non-commercial carriers are avoiding this tax, concern was raised that corporate aircraft and/or air taxi operators may fall under this broad definition, and conceivably could apply for such an exemption. Specifically, air taxi operators and corporate aviation operators often are set-up as private companies whose purpose is to provide for-hire transport; such firms could arguably be interpreted as “transportation companies”. Similarly, “Fractional Companies” might also fall under this unclear definition.

**Exhibit 5-6**  
**Aviation Tax Exemptions – by State**  
 South Carolina Aviation Economic Impact Study

| State | Common Carrier Exemption from Sales/Use Tax | Personal Property Tax Exemption | Aviation Fuel Tax Exemptions              |  |
|-------|---|---------------------------------|---|--|
|       |   |                                 | Jet Fuel                                  | AvGas                                  |
| AL    | Yes   | No                              | airlines w/AL hub                         | No                                     |
| AK    | n.a.  | n/a                             | intl flights                              | intl flights                           |
| AZ    | No  | n.a.                            | tax on 1st 10 million gal. only           | aerial applicators                     |
| AR    | No  | n/a                             | no  | No                                     |
| CA    | Yes   | No                              | aircraft manufacturers                    | commercial aviation                    |
| CO    | Yes   | n.a.                            | commercial                                | aerial applicators                     |
| CT    | No  | n.a.                            | n.a.                                      | n.a.                                   |
| DE    | No  | n.a.                            | n.a.                                      | No                                     |
| FL    | Yes   | n.a.                            | export/intl flights                       | export/intl flights                    |
| GA    | Yes   | No                              | no  | No                                     |
| HI    | No  | n.a.                            | commercial intl flights                   | commercial intl flights                |
| ID    | Yes   | n.a.                            | none                                      | No                                     |
| IL    | Yes   | n.a.                            | intl flights                              | intl flights                           |
| IN    | Yes   | n.a.                            | export/intl flights                       | export/intl flights                    |
| IA    | Yes   | n.a.                            | no  | No                                     |
| KS    | Yes   | comm. & bus.use                 | interstate flights                        | interstate flights                     |
| KY    | Yes   | Some local                      | commercial & business use                 | must pay state sales tax or excise tax |
| LA    | Yes   | private non-comm.               | none                                      | n/a                                    |
| ME    | Yes   | n.a.                            | export/intl flights                       | export/intl flights                    |
| MD    | Yes   | n.a.                            | export/intl flights                       | common carriers, agricultural ops      |
| MA    | No  | n.a.                            | no  | No                                     |
| MI    | Yes   | n.a.                            | commercial/ interstate 50% exemption      | commercial/ interstate 50% exemption   |
| MN    | No  | n.a.                            | sliding scale based on volume             | sliding scale based on volume          |
| MS    | No  | n.a.                            | no  | no                                     |
| MO    | Yes   | n.a.                            | no  | agricultural ops                       |
| MT    | n.a.  | n.a.                            | common carriers partially exempt          | no                                     |
| NE    | Yes   | No                              | flight schools                            | flight schools                         |
| NV    | Yes   | No                              | no  | no                                     |
| NH    | n.a.  | n.a.                            | common carriers partially exempt          | no                                     |
| NJ    | Yes   | n.a.                            | all fuel sold at intl airports            | all fuel sold at intl airports         |
| NM    | Yes   | n.a.                            | limited exemption for turbo prop/lets     | may apply for refund based on volume   |
| NY    | Yes   | n.a.                            | commercial airlines                       | gen.aviat. exempt by application       |
| NC    | Yes   | No                              | no  | no                                     |
| ND    | No  | n.a.                            | partial exmt. by application              | partial exmt. by application           |
| OH    | Yes   | n.a.                            | agricultural ops                          | agricultural ops                       |
| OK    | Yes   | n.a.                            | no  | no                                     |
| OR    | n.a.  | n.a.                            | export/intl flights                       | export/intl flights                    |
| PA    | Yes   | n.a.                            | no  | no                                     |
| RI    | No  | n.a.                            | no  | no                                     |
| SC    | No  | No                              | transportation companies                  | no                                     |
| SD    | Yes   | No                              | no  | no                                     |
| TN    | Yes   | No                              | no  | no                                     |
| TX    | Yes   | No                              | n.a.                                      | n.a.                                   |
| UT    | Yes   | n.a.                            | export/intl flights                       | export/intl flights                    |
| VT    | Yes   | n.a.                            | no  | no                                     |
| VA    | Yes   | No                              | may apply for volume discount             | may apply for volume discount          |
| WA    | Yes   | No                              | partial exmt. for comm.carriers, aarl ops | agricultural ops                       |
| WV    | Yes   | No                              | no  | no                                     |
| WI    | Yes   | n.a.                            | no  | no                                     |
| WY    | Yes   | No                              | no  | no                                     |

n.a. = not applicable (i.e. personal property taxes are not levied)

n/a = not available

Source: Conklin & deDecker "State Tax Guide for Aviation" and EDR Group.

## 5.2 Aviation-Related Tax Collection in South Carolina

Aviation activity in South Carolina generates tax revenues from both the provision of aviation products and services, as well as from state income taxes that arise from the economic impacts associated with the direct, indirect and multiplier impacts (tabulated in Chapter 4). These taxes and their associated collections are discussed and quantified below.

### 5.2.1 Direct Aviation Taxes and Revenues

Tax revenue attributable to the provision of aviation services is identified as direct aviation taxes, which arise from (1.) the ownership and/or purchase of aircraft and aircraft parts, (2.) the property tax or registration of aircraft, and (3.) the sale of aviation fuels. The previous section (5.1) compared South Carolina's general tax rates to those of other southeastern states. The actual tax collections for these aviation-related products in South Carolina is detailed below for each of these three tax types.

Sales Taxes on Aircraft, Parts & Services – The provision of merchandise and services in South Carolina is subject to sales taxes. The tax rates for sales, seller's use and consumers use are identical at 5%, with counties having the option to levy an additional sales tax of up to 2% (as summarized above in Exhibit 5-1). For aviation activities, this includes aircraft, aircraft parts, labor and aircraft dry leases. Businesses that sell aircraft parts and auxiliary equipment or that lease or rent aviation equipment are subject to such taxes. The South Carolina Department of Revenue collects these tax receipts, and requires each firm to include in their tax registration an SIC code (Standard Industrial Classification) that describes the business. This SIC code is used to identify aviation-related tax receipts, as summarized in **Exhibit 5-7**.

Exhibit 5-7

### SC Sales and Use Tax Collections for Aviation-Related Industries – by Year South Carolina Aviation Economic Impact Study

| Year      | Number of Businesses | Gross Sales | Net Taxable Sales Amount | Sales Tax Revenue |
|-----------|----------------------|-------------|--------------------------|-------------------|
| 1993-1994 | 9                    | \$2,883,200 | \$1,987,345              | \$99,367          |
| 1994-1995 | 8                    | \$3,314,028 | \$2,043,233              | \$102,162         |
| 1995-1996 | 8                    | \$3,063,149 | \$2,201,446              | \$110,072         |
| 1996-1997 | 5                    | \$515,557   | \$107,913                | \$5,396           |
| 1997-1998 | 3                    | Na          | na                       | na                |
| 1998-1999 | 3                    | Na          | na                       | na                |
| 1999-2000 | 4                    | Na          | na                       | na                |
| 2000-2001 | 5                    | Na          | na                       | na                |
| 2001-2002 | 8                    | \$206,749   | \$118,749                | \$5,937           |
| 2002-2003 | 12                   | \$315,580   | \$110,382                | \$5,519           |
| 2003-2004 | 8                    | \$445,958   | \$63,639                 | \$3,182           |

Source: South Carolina Department of Revenue, Sales and Use Tax Division

na: data not available

The information does not appear robust since it suggests a huge decline in fiscal year 1996/97 revenues, which plummeted from over \$110,000 to \$5,400. Further, the \$3,182 in sales tax revenue in fiscal year 2004 reflects collections from eight firms identified as providing “Air Transportation” services – that is firms that only sell aircraft parts and auxiliary equipment or that rent or lease aviation equipment.<sup>11</sup> Given the relatively small revenue figures, it is important to note that other firms that sell aircraft and other aviation-related materials may be classified under different SIC codes such as “transportation equipment”. It is presumed that sales generated by aviation-related firms not included in the classification above also contribute sales tax revenue to the state’s general fund. However, the SCDOR does not have data readily available for these collections.

Commercial Aircraft Property Taxes – Airline property tax assessments are based on: (1.) Blue Book – low wholesale values; (2.) the sum of the ratios of flight time everywhere to flight time over South Carolina; and (3.) total land time in South Carolina to total land time everywhere. In 2004, the assessment rate was 10.5% and the statewide millage rate was 0.281. Because carriers operate equipment in several states, commercial airlines often pay multi-state property taxes according to the proportional use and value of the equipment in each state. Carriers must submit an annual property tax report for their aircraft to the State Department of Revenue by April 15<sup>th</sup> each year for the preceding calendar or fiscal year, which provides the basis for the State’s tax assessment. A hypothetical tax calculation for an aircraft valued at \$1.0 million whose flight time over South Carolina is 100 days and land time is 25 days (out of a possible 365 days) is presented in **Exhibit 5-8**.

Exhibit 5-8  
**Commercial Aircraft Tax Tabulation Example**  
 South Carolina Aviation Economic Impact Study

| Item                               | Amount/Rate  |
|------------------------------------|--------------|
| Aircraft Value (Blue Book - low)   | \$1,000,000  |
| In-State Use Ratios                |              |
| Flight Time (i.e., 100 days)       | 0.274        |
| Land Time (i.e., 25 days)          | <u>0.068</u> |
| Total Time (i.e., 125 days)        | 0.342        |
| Aircraft Value based on Time in SC | \$342,000    |
| State Property Tax Assessment Rate | <u>10.5%</u> |
| Assessed Value                     | \$35,910     |
| State Millage Rate                 | <u>0.281</u> |
| Aircraft Tax Assessment            | \$10,091     |

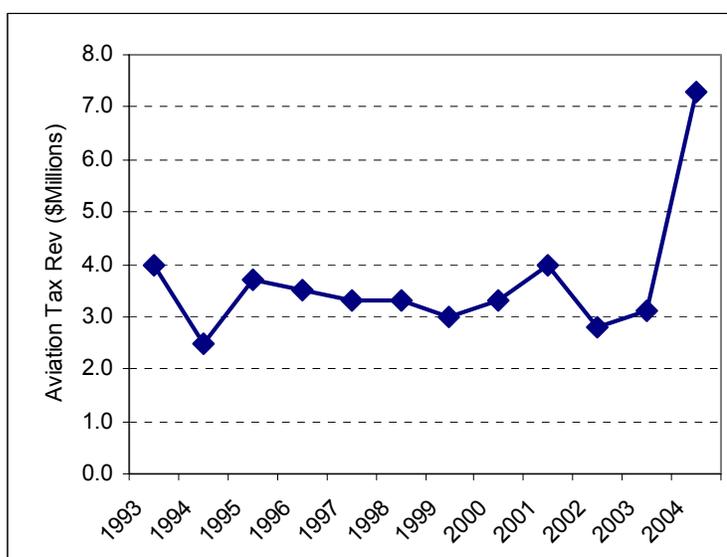
<sup>11</sup> Note that the South Carolina Department of Revenue (SCDOR) does not publish the gross sales and taxable sales figures in years when less than five (5) firms report their earnings, which explains the missing amounts for fiscal years 1997 through 2001.

The Comptroller General for the State of South Carolina records the commercial aircraft tax collection in its Annual Comprehensive Financial Report. As seen in **Exhibit 5-9**, the \$7.3 million in commercial aircraft tax revenue collected in 2004 was a banner year. According to the State Department of Revenue, between twenty to thirty commercial cargo and airline companies filed tax reports with South Carolina in 2004. The emergence of upstart air carriers, such as Independence Air and Hooters Airlines (both of which have since discontinued operations), in addition to heavier volumes of commercial flights may have played a role in the significant increase in aviation tax revenue between 2003 and 2004. Between 1993 and 2004, the State collected an average of \$4.0 million in aircraft property taxes annually from commercial airliners. All commercial aircraft tax revenue is distributed to the State’s general fund.

Exhibits 5-9  
**SC Commercial Aircraft Property Tax Collections – 1993-2004**  
 South Carolina Aviation Economic Impact

| Year           | Aircraft Tax Revenue (in millions) <sup>1</sup> |
|----------------|---|
| 1993           | \$4.0   |
| 1994           | 2.5   |
| 1995           | 3.7   |
| 1996           | 3.5   |
| 1997           | 3.3   |
| 1998           | 3.3   |
| 1999           | 3.0   |
| 2000           | 3.3   |
| 2001           | 4.0   |
| 2002           | 2.8   |
| 2003           | 3.1   |
| 2004           | 7.3   |
| <b>Average</b> | <b>\$3.7</b>                                    |

Source: SC Comprehensive Annual Financial Report, FY (s) 1993-2004



**Non-Commercial Aircraft Property Taxes** – Aircraft owned by individuals and corporations (e.g., general aviation) are subject to property taxes levied by county auditors. Each county in South Carolina collects local property taxes on corporate and privately owned aircraft on behalf of all taxing jurisdictions: county, school districts, and municipalities. Aircraft property taxes are based on three key components: (1.) aircraft value; (2.) county property tax assessment rate; and (3.) county millage rate. To determine the aircraft value, the South Carolina Department of Revenue distributes an aircraft valuation blue book to each county assessor’s office, who use the *low wholesale aircraft value* shown in the blue book. The County Assessors then apply the property tax assessment rate (up to a maximum of 10.5%) and the municipal and school district millage rates; the sum of these two rates is shown by county in **Exhibit 5-10**. In doing so, property taxes collected for aircraft are commingled with other property tax receipts.

Exhibit 5-10  
**General Aviation Aircraft Millage Rates and Property Taxes by County – 2004**  
 South Carolina Aviation Economic Impact Study

| County         | County Millage Rate | Aircraft Prop. Taxes <sup>1</sup> | Registered Aircraft <sup>2</sup> | Avg. Prop. Tax per Aircraft |
|----------------|---------------------|-----------------------------------|----------------------------------|-----------------------------|
| Abbeville      | 0.362               | \$3,216                           | 13                               | \$247                       |
| Aiken          | 0.214               | \$201,160                         | 48                               | \$4,191                     |
| Allendale      | 0.423               | \$479                             | 2                                | \$240                       |
| Anderson       | 0.270               | \$89,000                          | 92                               | \$967                       |
| Bamberg        | 0.392               | \$566                             | 2                                | \$283                       |
| Barnwell       | 0.391               | \$269                             | 2                                | \$135                       |
| Beaufort       | 0.143               | \$268,908                         | 99                               | \$2,716                     |
| Berkeley       | 0.252               | \$39,133                          | 53                               | \$738                       |
| Calhoun        | 0.267               | \$21,910                          | 10                               | \$2,191                     |
| Charleston     | 0.192               | \$672,349                         | 195                              | \$3,448                     |
| Cherokee       | 0.242               | \$852                             | 6                                | \$142                       |
| Chester        | 0.343               | \$3,250                           | 6                                | \$542                       |
| Chesterfield   | 0.233               | \$30,600                          | 21                               | \$1,457                     |
| Clarendon      | 0.291               | \$5,120                           | 15                               | \$341                       |
| Colleton       | 0.261               | \$35,254                          | 18                               | \$1,959                     |
| Darlington     | 0.234               | \$458,306                         | 33                               | \$13,888                    |
| Dillon         | 0.252               | \$2,982                           | 16                               | \$186                       |
| Dorchester     | 0.303               | \$40,028                          | 34                               | \$1,177                     |
| Edgefield      | 0.421               | \$2,587                           | 10                               | \$259                       |
| Fairfield      | 0.284               | \$1,363                           | 2                                | \$682                       |
| Florence       | 0.261               | \$148,500                         | 81                               | \$1,833                     |
| Georgetown     | 0.200               | \$32,652                          | 35                               | \$933                       |
| Greenville     | 0.264               | \$4,919,550                       | 242                              | \$20,329                    |
| Greenwood      | 0.265               | \$77,544                          | 36                               | \$2,154                     |
| Hampton        | 0.445               | \$1,463                           | 2                                | \$732                       |
| Horry          | 0.181               | \$330,490                         | 131                              | \$2,523                     |
| Jasper         | 0.293               | \$11,070                          | 10                               | \$1,107                     |
| Kershaw        | 0.244               | \$163,060                         | 44                               | \$3,706                     |
| Lancaster      | 0.262               | \$34,363                          | 46                               | \$747                       |
| Laurens        | 0.235               | \$17,743                          | 22                               | \$807                       |
| Lee            | 0.335               | \$247                             | 2                                | \$124                       |
| Lexington      | 0.327               | \$173,892                         | 100                              | \$1,739                     |
| Marion         | 0.268               | \$2,802                           | 12                               | \$234                       |
| Marlboro       | 0.269               | \$16,770                          | 9                                | \$1,863                     |
| McCormick      | 0.186               | \$326                             | 2                                | \$163                       |
| Newberry       | 0.349               | \$34,083                          | 13                               | \$2,622                     |
| Oconee         | 0.205               | \$122,162                         | 77                               | \$1,587                     |
| Orangeburg     | 0.334               | \$85,450                          | 85                               | \$1,005                     |
| Pickens        | 0.213               | \$78,812                          | 47                               | \$1,677                     |
| Richland       | 0.362               | \$526,414                         | 83                               | \$6,342                     |
| Saluda         | 0.347               | \$3,443                           | 4                                | \$861                       |
| Spartanburg    | 0.269               | \$505,929                         | 73                               | \$6,931                     |
| Sumter         | 0.289               | \$87,960                          | 16                               | \$5,498                     |
| Union          | 0.291               | \$2,904                           | 9                                | \$323                       |
| Williamsburg   | 0.266               | \$5,343                           | 3                                | \$1,781                     |
| York           | 0.261               | \$153,236                         | 59                               | \$2,597                     |
| <b>Average</b> | <b>0.282</b>        | <b>\$204,642</b>                  | <b>42</b>                        | <b>\$2,304</b>              |
| <b>Total</b>   |                     | <b>\$9,413,539</b>                | <b>1,920</b>                     |                             |

<sup>1</sup>Figures collected from County Auditors

<sup>2</sup>County registered aircraft often does not correlate with based aircraft, since aircraft are often based in a different location versus registration

As of 2005, counties now have the option to lower the standard 10.5% property rate assessed on general aviation aircraft to no lower than 4.0% of an aircraft's fair market value.<sup>12</sup> Each county also sets its millage rates for registered aircraft within their respective counties (also shown in **Exhibit 5-9**). Non-commercial aircraft property tax receipts totaled \$9.4 million in 2004. County millage rates average 0.282, ranging from a high of 0.445 in Hampton County to a low of 0.143 in Beaufort County. Registered aircraft range from a high of 242 in Greenville County to a low of only 2 in several counties. And, aircraft property taxes average \$2,304 per aircraft, ranging from a high of \$20,329 in Greenville County to a low of \$124 in Lee County.

Given the frequent use of the terms "registered aircraft" and "based aircraft", it should be made clear that they are not interchangeable. "Registered aircraft" refers to those aircraft that are registered with a certain tax jurisdiction; and as such, are subject to local taxes levied by South Carolina's county auditors. "Based aircraft", on the other hand, refers to aircraft that are physically located at a particular airport. Basing an aircraft at a particular airport does not necessarily mean that the corresponding airport's county auditor can levy property taxes on that particular aircraft. The power to levy taxes remains with the county auditor where the plane is registered. Many pilots opt to base their planes at South Carolina's airports, but register them elsewhere for any of a number of reasons, but predominantly as a result of more favorable rates of taxation elsewhere.

Aviation Fuel Sales and Tax Collections – As discussed previously in section 5.1.3, South Carolina levies a sales tax on the price of non-commercial aviation fuel sales (both AvGas and jet fuel) but not an excise tax on gallons sold. While the Department of Revenue does track AvGas tax receipts, it was not able to provide jet fuel tax receipts associated with general aviation activity. It is understood that AvGas tax data was tracked for several years because it was deposited into the South Carolina Aviation Fund, versus jet fuel tax receipts (for non-commercial aircraft) that were deposited into the State General Fund.

Recent legislative changes resulted in the intended transfer of general aviation jet fuel tax receipts from the General Fund into the State Aviation Fund, beginning in July 2005. However, at the time of this report, no information was available to confirm that the tax receipts are actually deposited into the State Aviation Fund. For this reason, an estimate was developed of both AvGas and jet fuel tax receipts based on gallons pumped and average price per gallon, as presented in **Exhibit 5-11**. The exhibit shows reported aviation fuel sales between 2001-2004, for AvGas and jet fuel, and total estimated aviation-related tax receipts (based on general aviation use only).<sup>13</sup>

---

<sup>12</sup> Source: South Carolina Property Tax Guide, South Carolina Department of Revenue (See Code Section 12-43-360, South Carolina State Code)

<sup>13</sup> Aviation fuel sales reported in the South Carolina Department of Revenue, Monthly Supplier Return Reports, indicates significant fluctuations from 2001 to 2004 due to the ramifications associated with the September 11<sup>th</sup> Attack. However, 2004 figures show a robust recovery. Commercial passenger service fuel sales are tax exempt.

Exhibit 5-11  
**Aviation Fuel Sales and Estimated Tax Receipts**  
 South Carolina Aviation Economic Impact Study

|  | AvGas               | Jet Fuel            | Total               |
|--|---------------------|---------------------|---------------------|
| <b>Aviation Fuel Sales (Gallons)<sup>1</sup></b> |                     |                     |                     |
| Commercial Service                               |                     |                     |                     |
| 2001   | 0                   | 31,255,700          | 31,255,700          |
| 2002   | 0                   | 22,148,100          | 22,148,100          |
| 2003   | 0                   | 18,729,400          | 18,729,400          |
| 2004   | 0                   | 28,139,900          | 28,139,900          |
| General Aviation                                 |                     |                     |                     |
| 2001   | 3,562,200           | 12,150,000          | 15,712,200          |
| 2002   | 1,934,500           | 8,610,000           | 10,544,500          |
| 2003   | 2,569,200           | 7,280,000           | 9,849,200           |
| 2004   | 4,130,200           | 10,950,000          | 15,080,200          |
| Total Commercial and General Aviation            |                     |                     |                     |
| 2001   | 3,562,200           | 43,405,700          | 46,967,900          |
| 2002   | 1,934,500           | 30,758,100          | 32,692,600          |
| 2003   | 2,569,200           | 26,009,400          | 28,578,600          |
| 2004   | 4,130,200           | 39,089,900          | 43,220,100          |
| <b>Price per Gallon (2004)<sup>2</sup></b>       |                     |                     |                     |
| Commercial Service                               | \$1.52              | \$1.50              |                     |
| General Aviation                                 | \$3.04              | \$3.00              |                     |
| <b>Estimated Fuel Sales (2004)</b>               |                     |                     |                     |
| Commercial Service                               | \$0                 | \$42,209,900        | \$42,209,900        |
| General Aviation                                 | <u>\$12,555,800</u> | <u>\$32,850,000</u> | <u>\$45,405,800</u> |
| Total Comm. and GA                               | \$12,555,800        | \$75,059,900        | \$87,615,700        |
| <b>Estimated Fuel Tax Receipts (2004)</b>        |                     |                     |                     |
| Commercial Service                               | \$0                 | \$0                 | \$0                 |
| General Aviation                                 | <u>\$627,800</u>    | <u>\$1,642,500</u>  | <u>\$2,270,300</u>  |
| Total Comm. and GA                               | \$627,800           | \$1,642,500         | \$2,270,300         |

<sup>1</sup>SC Dept. of Revenue Monthly Supplier Return Reports, SCDOA fuel sales survey

<sup>2</sup>Aviation Research Group - Low estimate of average annual fuel prices in the Southeast

Based on this information it is estimated that jet fuel tax revenues on general aviation activity totaled \$1.2 million in 2001, fell in 2002 and 2003 (not shown) and jumped back to over \$1.6 million in 2004. These are conservative since they are based on average low fuel prices. Nonetheless, they provide an indication of the magnitude of jet aviation fuel tax receipts that should be deposited into the State Aviation Fund since the new law went into effect. Specifically, based on 2004 gallons and price, monthly jet fuel tax revenues average over \$135,000. Since 2004, both gallons pumped and average prices have risen significantly.

Also of particular note is the foregone potential tax revenues associated with commercial passenger service. In 2004, commercial service fuel (28.1 million gallons) accounted for 65% of total aviation fuel (43.2 million gallons). Due to the significantly lower price of jet fuel, estimated commercial fuel sales (\$42.2 million) accounted for a lower share (48%) of total aviation fuel sales (\$87.6 million) in South Carolina. Nevertheless, these sales represent a significant source of potential tax revenues for the State. Given this exemption on commercial service fuel taxes, South Carolina’s total estimated aviation fuel tax collections in 2004 of \$2.3 million on \$87.6 million in sales yields an effective sales tax of only \$0.026. This is significantly less than the stated rates of neighboring states as presented in Section 5.1.3 (Exhibit 5-5).

Total Direct Aviation-Related Taxes – The combined State and local aviation-related tax revenues in South Carolina totaled an estimated \$18.9 million, as summarized below in **Exhibit 5-12**. Of these, approximately half, (\$9.4 million) go directly to local communities and half (\$9.5 million) go to state government coffers. Review by tax type suggest property taxes (\$16.7 million) comprise 88% of total receipts versus 12% for fuel taxes (\$2.2 million).

Exhibit 5-12

**Total Estimated Direct Aviation Taxes by Type and Jurisdiction – 2004 (Millions)**  
South Carolina Aviation Economic Impact Study

| Tax Type                 | State | Local | Total  |
|--------------------------|-------|-------|--------|
| Property (Aircraft)      | \$7.3 | \$9.4 | \$16.7 |
| Fuel (AvGas & Jet Fuel)  | \$2.2 | n/a   | \$2.2  |
| Sales (Parts & Services) | n/a   | n/a   | n/a    |
| Total                    | \$9.5 | \$9.4 | \$18.9 |

These total aviation-related taxes reflect both actual documented tax receipts as well as Consultant estimates, as detailed above. In addition, note that insufficient data regarding sales tax receipts on parts and services prevent a meaningful estimate. Similarly, insufficient data constrain an estimate of local fuel tax revenues associated with the 1%-2% local option tax.<sup>14</sup>

In summary, of the \$9.5 million in State collected property and fuel taxes, only \$0.6 million (6.4%) went to the State Aviation Fund in 2004. Based on recent legislative changes that took

<sup>14</sup> As an order-of-magnitude, it is estimated that these local option sales taxes generate another \$100,000

effect in July 2004, general aviation-related jet fuel sales taxes (\$1.6 million in 2004 terms) should be deposited into the State Aviation Fund. Combined, the \$2.2 million in aviation fuel sales (based on 2004 volumes) represent 23% of total State-related aviation tax receipts and 12% of total state and local aviation-related tax receipts. Lastly, the estimated share of aviation related tax receipts that ultimately make its way into the State Aviation Fund is considered conservative because data on sales tax receipts is not available for aviation-related parts and services. *The bottom-line is that aviation-related taxes in South Carolina generate greater revenue than what is deposited into the State Aviation Fund.*

**5.2.2 Income Taxes Associated with Economic Impacts**

South Carolina also levies an income tax on both individuals and corporations. In 2004, South Carolina collected approximately \$10.1 billion in tax revenue, with individual income taxes comprising roughly 21% (\$2.1 billion) of the state’s general fund.<sup>15</sup> This sub-section addresses individual income taxes generated from aviation related employment. South Carolina’s rate of individual income tax rates, shown in **Exhibit 5-13**, indicates a base tax rate ranges from 2.5% to 7% for annual incomes that range from \$2,350 to \$12,650 annually *after* federal withholdings.

Exhibit 5-13  
**State Individual Income Tax Rates – 2004**  
 South Carolina Aviation Economic Impact Study

| Annual Income Range After Federal Withholdings | Tax Rate |
|--|----------|
| \$0-2,530                                      | 2.5%     |
| \$2,530-\$5,060                                | 3%       |
| \$5,060-\$7,590                                | 4%       |
| \$7,590-\$10,120                               | 5%       |
| \$10,120-\$12,650                              | 6%       |
| \$12,650-Above                                 | 7%       |
| Source: South Carolina Department of Revenue   |          |

The average annual salary of a full-time employee in South Carolina working: (1) at an airport is \$39,600; (2) off-airport serving visitors who arrive by airport is \$24,700; (3) and off-airport in a multiplier related job is \$26,500. After federal income tax withholdings it is assumed that the average job earnings surpass the \$12,650 benchmark and are subject to the 7% tax rate. However, two factors complicate income tax estimates:

- First, the analysis considers average wages of full-time jobs. In reality, many of the indirect jobs associated with hotels and food service industries are part-time jobs that earn less than the \$12,650 benchmark applicable to the 7% tax bracket. Conversely,

<sup>15</sup> Source: South Carolina Comptroller General Annual Comprehensive Financial Report, FY 2003-2004.

pilots, executives and many other direct, indirect and multiplier jobs earn considerably more than the \$12,650 benchmark. For study purposes, the exact wage of each employee cannot be calculated. For this reason, a conservative approach is taken in which the tax rate is applied to the an average-annual-after-federal-tax-withholding-income of \$12,650. This conservative average annual rate is low, but is useful to clearly illustrate the magnitude of state income related taxes associated with South Carolina's airports and airfields.

- Second, many of the military related jobs are non-state-residents who are legal residents of other States stationed within South Carolina by virtue of military orders; such armed services personnel are exempt from South Carolina income tax on their service pay. For this reason, these 3,800 estimated jobs are also excluded from the income tax estimate.

Given the 7% tax rate, a conservative average taxable income rate of \$12,650 per job, and an estimated 61,733 aviation jobs subject to state taxes it is estimated that at least \$54.7 million dollars in income tax revenue is collected annually.

### 5.3 Tax Analysis Summary

The State and South Carolina counties benefit from taxes levied on civil aviation activities, which include fuel sales, property and income taxes. The cost to maintain and improve South Carolina's commercial and general aviation airports is shared by the federal government, the state, local governments, and various private entities. Through the Airport and Airways Trust Fund, the Federal Aviation Administration provides grants to public commercial and general aviation airports for eligible maintenance and development projects. To help airports leverage these much larger federal grants, South Carolina contributes funding to maintenance and development activities at public airports. The following conclusion summarizes the various tax collections and relates the collections to the economic output associated with airport activity detailed in Section 4.

Aviation Fuel Tax – South Carolina collects money for airport maintenance and development through taxes levied on the airport users. Taxes levied on the sale of Avgas and on jet fuel purchased by general aviation aircraft in South Carolina are now retuned to the airport system through investment for maintenance and development. Note that commercial aircraft are exempt from state fuel taxes.

For the most recent complete calendar year, South Carolina's 5 percent sales tax on jet fuel (for GA use) generated an estimated \$1.6 million in annual tax receipts, while taxes on Avgas generated about \$0.6. In July 2005, recently enacted legislative changes took effect that mandated the deposit of jet fuel tax receipts, in addition to previously deposited avgas receipts,

into the SC Aviation Trust Fund. These fuel taxes provide revenue specifically earmarked for the maintenance and development of State commercial and general aviation airports.

Almost every state levies a tax on the sale of jet fuel and AvGas. Many states also levy special excise taxes on the sale of these fuels; when these special excise taxes are levied in other states, the funds are typically returned to the airport system for maintenance and development. However, South Carolina does not have an excise tax for aviation related fuel sales.

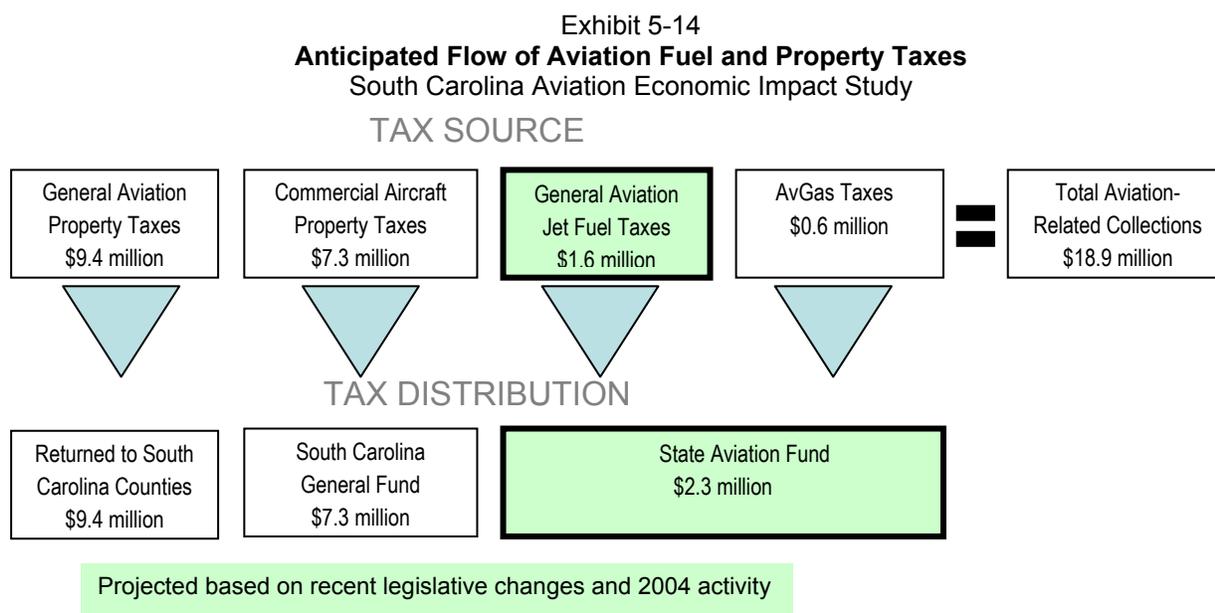
Property Tax – South Carolina also collects property taxes on general aviation and commercial aircraft. The State Department of Revenue levies a tax on commercial aircraft based on a formula that considers overflight and landed time in the state, along with aircraft values. Between 1993 and 2004, the state collected an average \$3.7 million annually from commercial airline personal property taxes; these taxes were deposited in the General Fund. Year 2004 tax collections from commercial airlines and deposited in the state's General Fund rose to \$7.3 million. New start-up low cost carriers (i.e., Independence Air and Hooters) and better collection may have helped generate the 2004 increase.

General aviation aircraft owned by individuals and companies registered in South Carolina are also subject to personal property taxes. These taxes and the tax rates are determined at the county level. Counties have input into setting the rate at which general aviation aircraft are taxed. If taxes are set too high, they may discourage aviation related activities within that county. Property taxes on aircraft are collected by each of South Carolina's 46 counties. These taxes are redistributed within each county based on local formulas for taxing authorities in each county. County funds collected from the taxation aircraft are most often used for schools and special municipal projects. Considering all county collections in 2004, an estimated \$9.4 million in personal taxes on general aviation aircraft in South Carolina were collected and returned to the counties.

Income Tax – When direct, indirect and multiplier impacts are considered, an estimated 65,533 jobs in South Carolina are in some way attributable to the airports and the military airfields analyzed in this study. Individual income tax collections in South Carolina total \$2.1 billion annually and account for over 40 percent of all tax revenue that goes into the General Fund. This study estimates that \$40.8 million in individual income tax is collected from jobs created from direct, indirect and multiplier impacts associated with commercial and general aviation airports. It is estimated that an additional \$13.9 million in individual income tax is collected from jobs associated with the four military airfields.

Total Tax Benefits vs. Current State Investment – Aviation-related taxes on fuel and personal property at airports and airfields, and income taxes of those employed by aviation contribute at least \$73.6 million to the tax base of the State or one of its 46 counties. Fuel taxes and property taxes alone account for an estimated \$18.9 million in annual tax receipts for the State and its counties. The projected \$2.3 million in aviation fuel taxes that should be allocated to the State

Aviation Fund represent 12.1% of aviation-related fuel and property taxes. Such tax collections by source and *intended* distribution by government agency (after July 2005 enactment of recent legislative changes) is diagrammed in **Exhibit 5-14**.



State Investment vs. Federal Funding and Annual Output – Over the past several years, the State of South Carolina’s investment in general aviation and small commercial airports (i.e. Florence Regional and Hilton Head) averaged \$1.3 million per year.<sup>16</sup> Much of this state investment (along with \$2.0 million in local matches) was used to leverage additional Federal grants from the FAA, which average \$14.2 million per year.<sup>17</sup> Combined, state, local and federal investment in general aviation and small commercial airports in South Carolina averages \$18.5 million per year.<sup>18</sup> Comparison of this \$18.5 million in public investments to the current annual output of \$547.6 million at the 54 general aviation and two small commercial airports indicates an impressive return on investment.<sup>19</sup>

<sup>16</sup> SC Division of Aeronautics, Department of Commerce

<sup>17</sup> Ibid.

<sup>18</sup> Small commercial airports include Florence Regional and Hilton Head. Note that the other four larger commercial service airports receive federal support directly from the FAA, and do not directly receive State funding.

<sup>19</sup> The \$547.6 million in output (i.e., economic activity) impacts includes \$48.4 million at Florence Regional, \$81.8 million at Hilton Head and \$417.4 million at the 54 general aviation airports.

---

# **Appendix A: Surveys**

---



**4. REVENUES**

For 2004, please provide the following for your airport:

\$ \_\_\_\_\_ Estimated annual operating profit

\$ \_\_\_\_\_ Estimated annual operating loss

\$ \_\_\_\_\_ Annual operating funds provided by your airport's sponsor

Does the airport own and lease hangars? (Please circle) Yes No

If so, please provide average monthly lease rates:

\$ \_\_\_\_\_ Monthly T-Hangar Rental Rates

\$ \_\_\_\_\_ Monthly Conventional Hangar Rental Rates

Does the airport owner/sponsor collect a fuel flowage fee? (Please circle) Yes No

If so, please provide the following:

\_\_\_\_\_ Fuel flowage rate for jet fuel \_\_\_\_\_ annual gallons sold

\_\_\_\_\_ Fuel flowage rate for 100LL \_\_\_\_\_ annual gallons sold

Does your airport collect landing fees? (Please circle) Yes No

If so, how much per year does your airport collect in landing fees from general aviation aircraft? \$ \_\_\_\_\_

**5. AIRPORT ACTIVITY**

How many annual general aviation landings and takeoffs did you airport accommodate in 2004? \_\_\_\_\_  
Please estimate (by percentage) the distribution of your annual operations for trip purpose.

\_\_\_\_\_ % Business Only

\_\_\_\_\_ % Pleasure/Personal Only

\_\_\_\_\_ % Business/Personal Mix

\_\_\_\_\_ % Recreational

\_\_\_\_\_ % Training

\_\_\_\_\_ % Agricultural

\_\_\_\_\_ % Other

Is there a business at your airport that sells aircraft? (Please circle) Yes No

If so, please list the firms \_\_\_\_\_

\_\_\_\_\_

Does your airport have regular activity by air cargo/air freight carrier? Yes No

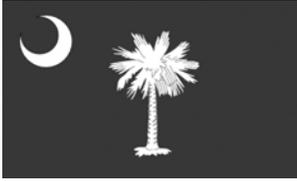
If so, please list the firms \_\_\_\_\_

\_\_\_\_\_

**6. AVIATION ACTIVITY**

What activities occur at your airport? *(Check all that apply).*

| <b><u>Activity</u></b>  | <b><u>Never</u></b> | <b><u>Infrequently</u></b> | <b><u>Frequently</u></b> | <b><u>Very Frequently</u></b> |
|---|---------------------|----------------------------|--------------------------|-------------------------------|
| Recreational flying   |                     |                            |                          |                               |
| Agricultural spraying   |                     |                            |                          |                               |
| Corporate/business activity   |                     |                            |                          |                               |
| Aerial inspections (pipeline, electric. etc.)                         |                     |                            |                          |                               |
| Air cargo   |                     |                            |                          |                               |
| Gateway for recreational visitors                                     |                     |                            |                          |                               |
| Police/law enforcement  |                     |                            |                          |                               |
| Prisoner transport  |                     |                            |                          |                               |
| Military exercises/training   |                     |                            |                          |                               |
| Career training/Flight instruction                                    |                     |                            |                          |                               |
| Search & rescue/Civil Air Patrol                                      |                     |                            |                          |                               |
| Environmental patrol (i.e. wildlife)                                  |                     |                            |                          |                               |
| Emergency medical evacuation  |                     |                            |                          |                               |
| Physician/Medical Transportation                                      |                     |                            |                          |                               |
| Medical shipments/patient transfer                                    |                     |                            |                          |                               |
| Forest firefighting   |                     |                            |                          |                               |
| Aerial photography/surveying  |                     |                            |                          |                               |
| Real estate tours   |                     |                            |                          |                               |
| Aerial advertising/banner towing                                      |                     |                            |                          |                               |
| Traffic/news reporting  |                     |                            |                          |                               |
| Air shows   |                     |                            |                          |                               |
| Location of community facilities (parks, fire station, meeting rooms) |                     |                            |                          |                               |
| Skydiving   |                     |                            |                          |                               |
| Gliders/soaring   |                     |                            |                          |                               |
| Food service  |                     |                            |                          |                               |
| Other (specify)_____  |                     |                            |                          |                               |



# State of South Carolina Economic Impact Study AIRPORT TENANT SURVEY

ALL RESPONSES WILL BE HELD STRICTLY CONFIDENTIAL

1. **Airport Where Your Business is Located** \_\_\_\_\_
2. **Business Name** \_\_\_\_\_
- Contact** \_\_\_\_\_
- Name Phone Number

3. **What area of aviation activity applies to your business at the airport? (Check ALL that apply.)**

- |  |  |
|--|--|
| <input type="checkbox"/> Airline                             | <input type="checkbox"/> Rental Car                |
| <input type="checkbox"/> Concession                          | <input type="checkbox"/> Air Taxi/Charter Operator |
| <input type="checkbox"/> FBO                                 | <input type="checkbox"/> Aircraft Maintenance      |
| <input type="checkbox"/> Corporate Flight Department         | <input type="checkbox"/> Flight Instruction        |
| <input type="checkbox"/> Government/Airport Management/Owner | <input type="checkbox"/> Non-Aviation Business     |
| <input type="checkbox"/> Air Freight/Cargo Carrier           | <input type="checkbox"/> Other (please specify)    |
| <input type="checkbox"/> Aerial Applicator                   | _____  |

3. **EMPLOYMENT**

During 2004, how many **full-time** and **part-time employees** were employed by your business at the airport?

2004 **Full-time** employees ►  2004 **Part-time** employees ►

4. **EXPENDITURES**

Please estimate the total **annual wages and benefits** paid to all employees shown in Question 3.

◀ 2004 Total Wages/Benefits

Please estimate how much your business paid in **property taxes** in 2004. ►

Please estimate other taxes paid to South Carolina by your business in 2004. ►

Please estimate how much your business spent for **capital improvements** in the following years:

|                                 |        |                                 |        |
|---------------------------------|--------|---------------------------------|--------|
| <input type="text" value="\$"/> | ◀ 2001 | <input type="text" value="\$"/> | ◀ 2002 |
| <input type="text" value="\$"/> | ◀ 2003 | <input type="text" value="\$"/> | ◀ 2004 |

Omitting the expenditure categories above (i.e., payroll, taxes, and capital improvements) please estimate how much your business spent for **all other operating expenses** in 2004.

◀ 2004 Operating Expenses

**PLEASE CONTINUE ON THE REVERSE SIDE**

**5. GROSS SALES**

What were your business' **total gross sales** at the airport in 2004?

|    |
|----|
| \$ |
|----|

◀ 2004 Gross Sales

**6. AIRCRAFT AND FUEL SALES**

If your business sells aircraft, approximately how many aircraft did you sell during 2003? \_\_\_\_\_;

What was the approximate value of these planes? \$ \_\_\_\_\_

How many aircraft did you sell during 2004? \_\_\_\_\_

What was the approximate value of these planes? \$ \_\_\_\_\_

If your business sells fuel, how many gallons of jet fuel did you sell in 2004? \_\_\_\_\_

How many gallons of 100LL fuel did you sell in 2004? \_\_\_\_\_

7. Please comment on any additional economic benefits or services that your business provides to the local community.

---

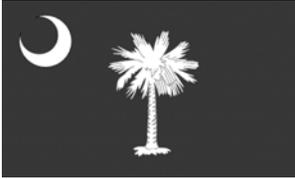
---

---

***Please complete and return this survey within ten days of receiving it.*** If you have any questions regarding this survey, please contact Eric McClellan of Wilbur Smith Associates at 803.758.4500 or [emcclellan@wilbursmith.com](mailto:emcclellan@wilbursmith.com). You may also return the survey via FAX at 803.251-2922.

***PLEASE MAIL the COMPLETED SURVEY in the ENCLOSED SELF-ADDRESSED, STAMPED ENVELOP.  
THANK YOU.***

---



# State of South Carolina Economic Impact Study AIRPORT PASSENGER SURVEY

South Carolina Aeronautics is conducting a passenger survey today. Would you like to participate? The information that you provide will help identify the economic importance of commercial airline service to South Carolina.

## **GENERAL**

1. Are you a:
  - Resident of South Carolina?
  - Connecting Passenger?
  - Visitor to South Carolina?

## **IF PASSENGER IS A VISITOR TO THE AREA, PLEASE COMPLETE QUESTIONS 2-5**

2. What is the purpose of your trip?
  - Business
  - Personal/Vacation
  - Military
  - Other (please specify) \_\_\_\_\_
3. How many days did you stay in South Carolina? \_\_\_\_\_
4. Approximately how much money did you spend on each of the following items during your stay in South Carolina? *If traveling as a family or group please include expenditures made by all.*
  - Lodging \$ \_\_\_\_\_
  - Food/Beverage \$ \_\_\_\_\_
  - Ground Transportation \$ \_\_\_\_\_
  - Entertainment \$ \_\_\_\_\_
  - Retail \$ \_\_\_\_\_
  - Other \$ \_\_\_\_\_
  - Total \$ \_\_\_\_\_
5. How many people, including yourself, accounted for the expenditures identified above? \_\_\_\_\_

THANK YOU FOR COMPLETING THIS SURVEY



# State of South Carolina Economic Impact Study TRANSIENT PILOT SURVEY

**Dear General Aviation User:**

This survey, which is sponsored by the South Carolina Division of Aeronautics, will be used to help measure the positive economic benefits of daily aircraft operations at the airport. Please take a few moments to complete the survey and drop it in the mail (pre-paid postage is on the back of the survey). Thank you for your time.

1. **At which airport did you receive this survey?** \_\_\_\_\_
2. **Please indicate the number of travelers, including the pilot, in your aircraft today:** \_\_\_\_\_
3. **Please indicate the type of aircraft you are operating today:**

Make \_\_\_\_\_ Model \_\_\_\_\_

**Did you file an IFR Flight Plan today?**  Yes  No

4. **Please indicate the purpose of your trip today (please check one box):**

|                  |                          |
|------------------|--------------------------|
| Business         | <input type="checkbox"/> |
| Fuel/Maintenance | <input type="checkbox"/> |
| Flight Training  | <input type="checkbox"/> |
| Recreation       | <input type="checkbox"/> |

Other (please specify) \_\_\_\_\_

5. **How long was your visit to this airport/area?**

Day only – How many hours?  Hours

**OR**

Overnight – How many days?  Days

6. **Please estimate expenditures for this trip:**

|                               |    |
|-------------------------------|----|
| Lodging                       | \$ |
| Food & Beverage               | \$ |
| Rental Car/Taxi/Limo          | \$ |
| Retail/Entertainment          | \$ |
| Aircraft services (fuel, etc) | \$ |
| Other                         | \$ |
| <b>Total</b>                  | \$ |

**How many people, including you, accounted for these expenditures?** \_\_\_\_\_

7. **Where is your aircraft based?**

Airport Name \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

**PLEASE CONTINUE ON THE REVERSE SIDE**

8. In the last 12 months, approximately how many trips by general aviation aircraft did you make to airports in South Carolina for:

\_\_\_\_\_ Business      \_\_\_\_\_ Pleasure      \_\_\_\_\_ Training

9. Please provide us with any comments that you may have regarding the ways in which South Carolina airports benefit your business:

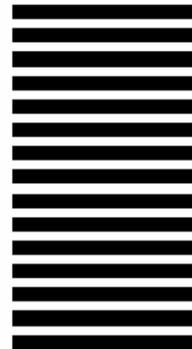
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If you have any questions regarding this survey, please contact Eric McClellan of Wilbur Smith Associates at 803.758.4500 or [emcclellan@wilbursmith.com](mailto:emcclellan@wilbursmith.com). You may also return the survey via FAX at 803.251.2922.

**THANK YOU. IF YOU ARE MAILING A COMPLETED SURVEY, PLEASE FOLD AND TAPE OR STAPLE IT TIGHTLY CLOSED SO THE PREPAID RETURN POSTAGE ADDRESS IS SHOWING.**



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

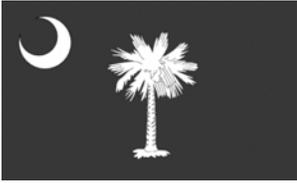


**BUSINESS REPLY MAIL**  
FIRST-CLASS MAIL PERMIT NO. 3722 COLUMBIA SC

POSTAGE WILL BE PAID BY ADDRESSEE

WILBUR SMITH ASSOCIATES  
1301 GERVAIS ST STE 1500  
COLUMBIA SC 29201-9656





# Economic Impact Study BUSINESS QUESTIONNAIRE

## COMPANY INFORMATION

Name of Company or Individual \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Zip \_\_\_\_\_ Phone \_\_\_\_\_

## EMPLOYMENT INFORMATION

Type of Business Product or Service \_\_\_\_\_

# of Employees: Full Time \_\_\_\_\_ Part Time \_\_\_\_\_ 2004 Annual Gross Sales Volume \$ \_\_\_\_\_

2004 Annual Payroll (this location only) \$ \_\_\_\_\_

## SCHEDULED COMMERCIAL AIRLINE USE

1. Please list all commercial airports used by your employees for airline travel.

|             |             |                |
|-------------|-------------|----------------|
| Airport #1: | Name: _____ | % of use _____ |
| Airport #2: | Name: _____ | % of use _____ |
| Airport #3: | Name: _____ | % of use _____ |
| Airport #4: | Name: _____ | % of use _____ |

We do not use airline service 100%

2. Please estimate the **total number of airline trips** per year taken by your employees:  
\_\_\_\_\_ (Very important for this survey)

3. Please note the method of airline ticket purchase:

Local Travel Agency     Direct From Airline     On-line/Internet     Corporate Travel Service

4. Approximately what percent of your company's employment and sales is dependent on the availability of scheduled commercial airline service? Employment: \_\_\_\_\_% Sales: \_\_\_\_\_%

5. Do any of your **clients or vendors** use **airline service** to visit you in South Carolina?

Yes \_\_\_\_\_ Estimated Air Trips/Year?       No

## GENERAL AVIATION USE

6. Does your company:

- a. Own general aviation aircraft?
- b. Have fractional ownership in an aircraft?
- c. Use charters or air taxis on a regular basis?
- d. Lease a general aviation aircraft?

| Yes | No |
|-----|----|
|     |    |
|     |    |
|     |    |
|     |    |

e. If you answered "yes" to any question above please estimate the number of annual aircraft takeoffs and landings that you conduct at South Carolina airports?

South Carolina Airport Name

Number Annual Take-Offs/Landings

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**PLEASE CONTINUE ON THE REVERSE SIDE**

7. Do any of your **clients or vendors** use **general aviation** to visit your South Carolina business site?  
 Yes \_\_\_\_\_ Estimated Air Trips/Year?                       No
8. Approximately what percent of your company's employment and sales is dependent on the availability of general aviation services? Employment: \_\_\_\_\_%    Sales: \_\_\_\_\_%
9. If your company were considering expansion or relocation, how important would the following factors be to your decision making process?

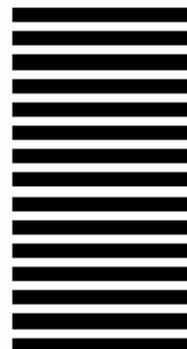
| <b>CATEGORY</b>                   | <b>NOT IMPORTANT</b> |   |   |   |   |   |   |   |   |    | <b>VERY IMPORTANT</b> |   |   |   |   |   |   |   |   |    |
|-----------------------------------|----------------------|---|---|---|---|---|---|---|---|----|-----------------------|---|---|---|---|---|---|---|---|----|
| Convenient highway access         | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| A commercial service airport      | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| A general aviation airport        | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Water transportation facilities   | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Available labor supply            | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Rail transportation facilities    | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| An urban business district        | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Raw materials                     | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Natural resources                 | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Academic or cultural centers      | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Tax incentives                    | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Availability of trained workforce | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Proximity of suppliers            | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Historic location of business     | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

**Please complete and return this survey within 10 days.** If you have any questions regarding this survey, please contact Eric McClellan of Wilbur Smith Associates at 803.758.4500 or [emcclellan@wilbursmith.com](mailto:emcclellan@wilbursmith.com). You may also return the survey via FAX at 803.251.2922.

**THANK YOU. IF YOU ARE MAILING A COMPLETED SURVEY, PLEASE FOLD AND TAPE OR STAPLE IT TIGHTLY CLOSED SO THE PREPAID RETURN POSTAGE ADDRESS IS SHOWING.**



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES



**BUSINESS REPLY MAIL**  
FIRST-CLASS MAIL    PERMIT NO. 3722    COLUMBIA SC

POSTAGE WILL BE PAID BY ADDRESSEE

WILBUR SMITH ASSOCIATES  
1301 GERVAIS ST STE 1500  
COLUMBIA SC 29201-9656



---

**Appendix B:  
Vought Aircraft Manufacturing  
Facility Impacts**

---

## Vought Aircraft Manufacturing Facility Impacts Charleston International Airport

In February 2005, ground was broken on a joint-venture Vought Aircraft Industries-Alenia North America Boeing 787 Dreamliner fuselage production facility. The location selected by Boeing for the fuselage sub-assembly work is a 380-acre site on Charleston International Airport. The facility, expected to be completed in early 2006 with production commencing later in the year, will consist of two separate 300,000 square foot buildings (one each for Vought and Alenia), totaling an estimated \$560 million investment. Fuselage sub-assemblies will be built by Vought in its building and then mated to Italian built Alenia sub-assemblies in the adjacent Alenia facility.



The Vought-Alenia facility will create an estimated 645 high-paying jobs with an average annual salary of \$50,000 (totaling over \$32 million annually). Boeing will also employ 45 to 50 personnel at the Airport in support of freighter operations required

to transport the completed fuselage sub-assemblies from Charleston to Seattle for final aircraft construction. It is anticipated that additional jobs in South Carolina will be created as suppliers gear-up in support of the Vought-Alenia plant. Both Vought and Alenia have indicated a willingness to work with South Carolina based suppliers in all stages from initial facility construction through full-scale production phases.

The annual impacts associated with initial construction and subsequent operations are summarized by the direct construction and operation of the facility as well as the by associated multiplier impacts. The total annual impacts associated with the facility's operations suggests \$170.0 million in economic activity, of which \$52.9 million is paid to 2,240 South Carolina employees.

| Impact Period                           | Impact Measure        |                         |              |
|---|-----------------------|-------------------------|--------------|
|   | Output<br>(\$Million) | Earnings<br>(\$Million) | Jobs         |
| <b>Initial Construction<sup>1</sup></b> |                       |                         |              |
| Direct                                  | \$280.0               | \$120.0                 | 3,420        |
| Multiplier                              | <u>190.0</u>          | <u>70.0</u>             | <u>2,030</u> |
| <b>Total</b>                            | <b>\$470.0</b>        | <b>\$190.0</b>          | <b>5,450</b> |
| <b>Annual Operations</b>                |                       |                         |              |
| Direct                                  | \$103.6               | \$35.0                  | 700          |
| Multiplier                              | <u>\$66.4</u>         | <u>\$17.9</u>           | <u>1,540</u> |
| <b>Total</b>                            | <b>\$170.0</b>        | <b>\$52.9</b>           | <b>2,240</b> |

<sup>1</sup>Total impacts are annualized; spread over the two-year construction period



South Carolina  
Department of Commerce

South Carolina Department of Commerce  
*Division of Aeronautics*

2553 Airport Blvd  
West Columbia, South Carolina 29170

PO Box 280068  
Columbia, South Carolina 29228-0068

(803) 896-6260 or (800) 922-0574  
[www.scaeronautics.com](http://www.scaeronautics.com)

