Aerospace in the Southeast
South Carolina and its Competitive Markets

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Source: U.S. Cluster Mapping (http://clustermapping.us)

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Overview

- The economic impact of the aerospace cluster in South Carolina
- What we’ve learned about aerospace in South Carolina since Aerospace Industry Day 2014
- Looking beyond the borders of South Carolina
- Takeaways and ongoing strategic questions
The Economic Impact of the Aerospace Cluster in South Carolina
National Establishment Time-Series (NETS)

- Firm-level data across South Carolina
- Includes firm names, addresses, various industry codes, employment, sales revenue, headquarters location, etc...
- Data are captured over time: 1989-2012
Aerospace Cluster Defined

The aerospace cluster includes four total components:

1. Aerospace Manufacturing
2. Air Transportation
3. Air Transportation Support Services
4. Military Aviation

The following charts examine trends for the private sector component of aerospace.
Private Sector Aerospace

- Aircraft Manufacturing *(336411)*
- Aircraft Engine and Engine Parts Manufacturing *(336412)*
- Other Aircraft Parts and Auxiliary Equipment Manufacturing *(336413)*
- Guided Missile and Space Vehicle Manufacturing *(336414)*
- Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing *(336415)*
- Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing *(336419)*
- Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing *(334511)*
- Air Transportation *(481111, 481112, 481211, 481212, 481219)*
- Air Transportation Support *(488111, 488119, 488190)*

*Corresponding NAICS (North American Industrial Classification System) Codes Listed in Blue*
2.2 → For every 10 jobs created in the private aerospace cluster, there are 12 jobs created elsewhere in South Carolina’s economy
South Carolina Economic **Impact**

Total Employment: 102,721
Total Compensation: $7.3 billion
Total Economic Impact: $17.4 billion
Direct, Private Sector Aerospace

17,114 employees
466 firms

This is our focus!
### Annual Employment and Firm Growth

<table>
<thead>
<tr>
<th></th>
<th>Private Sector Aerospace Employment</th>
<th>South Carolina Employment</th>
<th>Private Sector Aerospace Firms</th>
<th>South Carolina Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-2007 Annual Growth</td>
<td>+7.9%</td>
<td>+1.9%</td>
<td>+3.6%</td>
<td>+5.2%</td>
</tr>
<tr>
<td>2007-2012 Annual Growth</td>
<td>+11.4%</td>
<td>-0.9%</td>
<td>+8.6%</td>
<td>+3.1%</td>
</tr>
<tr>
<td>2010-2012 Annual Growth</td>
<td>+15.5%</td>
<td>+1.4%</td>
<td>+18.7%</td>
<td>+4.9%</td>
</tr>
</tbody>
</table>
Percentage of Private Sector Firms by Region

- **Upstate**: 38.8%
- **Midlands**: 28.3%
- **Lowcountry**: 32.8%
What We’ve Learned about Aerospace in South Carolina since Aerospace Industry Day 2014
Firm Interview Takeaways

• Uncovered Supply Chain Gaps

• A Demand for OEM/Tier 1 Firms Exists

• Discovered Overlap in Aerospace and Medical Device Supply Chains
Firm Interview Takeaways

• Discovered a Diverse Cluster

• Successful Results from Collaboration & Cluster Development Efforts

• Strong Interest in Education & Workforce Development Efforts
Looking Beyond the Borders of South Carolina
Private Sector Aerospace Across the States
Distribution of Employment

- **Washington**
  - Aerospace Manufacturing: 85.6%
  - Air Transportation: 9.9%
  - Support for Air Transportation: 4.1%
- **North Carolina**
  - Aerospace Manufacturing: 54.5%
  - Air Transportation: 22.5%
  - Support for Air Transportation: 23.1%
- **South Carolina**
  - Aerospace Manufacturing: 72.2%
  - Air Transportation: 17.8%
  - Support for Air Transportation: 4.0%
- **Alabama**
  - Aerospace Manufacturing: 61.2%
  - Air Transportation: 17.8%
  - Support for Air Transportation: 6.6%
- **Georgia**
  - Aerospace Manufacturing: 32.2%
  - Air Transportation: 61.2%
  - Support for Air Transportation: 6.6%
2010-2012 Annual Private Sector Aerospace Emp. & Firm Growth

- SC: Employment Growth: 15.5%, Firm Growth: 18.7%
- AL: Employment Growth: 2.5%, Firm Growth: 21.3%
- GA: Employment Growth: -2.3%, Firm Growth: 14.1%
- NC: Employment Growth: 10.7%, Firm Growth: 25.3%
- WA: Employment Growth: 11.2%, Firm Growth: 16.5%
2010-2012 Annual Private Sector Aerospace Revenue Growth

- SC: 15.5%
- AL: -1.8%
- GA: 6.9%
- NC: 8.1%
- WA: 13.9%
Ex. $104,798 in Washington is equivalent to $82,803 in South Carolina in purchasing power.

Note: Compensation figures include wages, salaries, and benefits.
Total compensation in Private Sector Aerospace grew 42.7% between 2005 and 2014 compared to only 23.9% growth for all industries in SC.

Note: Compensation figures include wages, salaries, and benefits
South Carolina Private Sector Aerospace Employment Growth

Boeing Announcement
Alabama

- Home to Airbus’ first American jetliner production facility. Final assembly and production on the Airbus A320 expected to begin in late 2015.

- Over $651 million in Aerospace equipment and parts were exported in 2014 up from nearly $300 million in 2006.

- Home to the Marshall Space Flight Center.

- Boeing and Lockheed Martin have had operations in Alabama for more than 50 years.

- Four universities offer degrees in Aerospace Engineering.
Georgia

• In 2013 Aerospace contributed $22.7 billion or 5.3% to the state’s GDP.

• Home to the world’s busiest commercial airport in Atlanta, also the headquarters of Delta Airlines.

• Large presence of Gulfstream Aerospace Corp. and Lockheed Martin Aeronautics.
Georgia Private Sector Aerospace Employment Growth

- 64,000
- 66,000
- 68,000
- 70,000
- 72,000
- 74,000
- 76,000
- 78,000
- 80,000
- 82,000
- 84,000
- 86,000

2002 to 2012
North Carolina

• Birthplace of Aviation in early 1900s.

• GE Aviation is building a 170,000 square foot facility for mass production of engine components made from ceramic matrix composite materials.

• Provided incentive package in 2008 to Spirit AeroSystems (composite material manufacturing) to locate in Kinston, NC. Additional aerospace workforce development programs were developed for community colleges and high schools.

• Honda Aircraft Co. expects to add more than 400 new jobs by the end of 2015.

• HondaJet in final testing. Production expected to ramp up.
North Carolina Private Sector Aerospace Employment Growth

- 15,000
- 17,000
- 19,000
- 21,000
- 23,000
- 25,000
- 27,000

- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
Washington

• Has enjoyed growth in aerospace cluster for nearly 100 years.

• Aerospace firms in 35 of the state’s 39 counties.

• Has ties to both Boeing and Airbus.

• Aerospace continues to be a strategic focus for state leaders.
Washington Private Sector Aerospace Employment Growth
Takeaways and Ongoing Strategic Questions
How does South Carolina maximize its ability to create aerospace employment for South Carolinians?

Ex. Alabama has more advanced-degree higher education programs in aerospace
Washington has enjoyed a growing aerospace cluster for nearly 100 years, which has allowed aerospace firms to open and expand into 35 of the state’s 39 counties.

South Carolina firm activity is concentrated in the Charleston and Greenville regions. What efforts can South Carolina take to broaden the aerospace cluster across more of the state?
South Carolina’s aerospace-related firms represent a diverse group encompassing many components of the aerospace cluster. This is evidenced by the fact that a majority of firms are not in Boeing’s supply chain.

Going forward, how does South Carolina help ensure that the aerospace cluster continues this type of diverse firm growth?
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