



ECONOMIC DEVELOPMENT  
PARTNERSHIP OF NORTH CAROLINA

2016

# NORTH CAROLINA AEROSPACE INDUSTRY

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## INVEST IN NORTH CAROLINA

From the Wright Brothers' first flight at Kitty Hawk in 1903 to today's innovative engineering and cutting-edge research, North Carolina continues its legacy as a leader in aerospace. Companies in the aerospace industry choose North Carolina for its winning combination of workforce, existing industry strength, location, and business-friendly environment. The state boasts the fastest growing large economy in the U.S. and consistently ranks among the top five in internationally-recognized business environment rankings.

North Carolina's population grew 22% from 2001 to 2015. The state, with more than 10 million residents, is the 9th largest state in the U.S. North Carolina's low cost of living and highly-skilled workforce further contribute to its favorable business environment. Advantages of doing business in North Carolina include:

- Convenient market access
- Business-friendly environment
- Skilled labor force
- Top-ranked industry support
- Exceptional quality of life

Consider **North Carolina** for your next trade or investment decision, and find out why **Nothing Compares.**

“

**The positive business environment and employee work ethic**

in the region were key factors in the selection of Union County for the expansion. **Our confidence in North Carolina is validated by our investment...**

*-Richard Harshman,  
CEO, ATI Specialty Material*



# NORTH CAROLINA'S AEROSPACE ADVANTAGE

Aerospace companies thrive in North Carolina. Both industry giants and smaller, niche manufacturers enjoy significant growth in the state. In fact, North Carolina has the second fastest-growing aerospace product and parts manufacturing sector in the U.S. North Carolina also provides a robust supply chain, and is home to an abundance of businesses that supply to and support the aerospace industry. Whatever an aerospace company needs, North Carolina has the resources to support it.



## #2 Fastest Growing Aerospace Sector

With 76% growth from 2007 to 2016, North Carolina has the second fastest-growing aerospace product and parts manufacturing sector in the U.S.



## 1,000+ Companies

More than 1,000 companies make up North Carolina's aerospace supply chain, including manufacturing, repair & maintenance, and other support services.



## 4th Largest Military Population

NC military installations expect 78,000 personnel with in-demand skills to re-enter the civilian workforce through 2018. Many of these workers specialize in aerospace propulsion and ground equipment.



## Labor Supply

Nearly 4.9 million workers make up North Carolina's growing labor force. In the last 10 years, the state's labor force has grown 8% and shows no signs of slowing. As a result, North Carolina's skilled workforce supports the state's aerospace industry growth.

\* The total workforce pipeline includes workers whose current jobs are at least 95% compatible with the listed job description in terms of knowledge, skills, and abilities. Source: EMSI, 2016

Job Description	2016 Jobs	Job Growth (2012-2016)	2016 Total Workforce Pipeline*
Software Developers and Programmers	46,767	+18%	77,495
Machinists	11,836	+11%	101,562
Computer Control Programmers and Operators	6,327	+17%	41,626
Mechanical Engineers	6,251	+110%	15,147
Aircraft Mechanics and Service Technicians	4,548	+17%	50,359
Aerospace Engineers	829	+6%	829



## North Carolina's Aerospace Cluster



### Military Expertise Fuels NC's Aerospace Industry

- 4th largest active duty military population in the U.S.
- More than 78,000 anticipated separations through 2018.
- Active duty specialization in aerospace propulsion and ground equipment.
- The Fleet Readiness Center (FRC-East) in Cherry Point, NC specializes in aircraft, engine, and components repair, and is the only repair facility in the U.S. for several aircraft engines. FRC-East is also the Department of Defense Vertical Lift Center of Excellence.

#### Military Aerospace Presence in North Carolina

##### Army

US Army Fort Bragg  
Pope Army Airfield

##### Marine Corps

Marine Corps Base, Camp Lejeune  
Marine Corps Air Station, Cherry Point  
Marine Corps Air Station, New River

##### Air Force

Seymour Johnson Air Force Base

##### Coast Guard

US Coast Guard Air Station

##### NC National Guard

National Guard 449th Aviation  
National Guard 145th Airlift Wing







# UNMATCHED BUSINESS ENVIRONMENT

## #1

### Top Competitive State

- Site Selection (2015 Prosperity Cup)

## #2

### Best State for Business

- Forbes (2015)

## #3

### Lowest State & Local Business Tax Burden in the U.S.

- Ernst & Young (2015)

## #4

### Best Labor Climate

- Area Development (2015)

### Highly Skilled Workforce

North Carolina's **53 colleges & universities** and **nationally recognized, 58-campus community college system** produce a highly skilled workforce.

- **108,800 degrees awarded** from North Carolina colleges & universities in 2014
- **460,000 manufacturing employees**
- **8% workforce growth** since 2007

### Low Unionization

At **3%**, North Carolina has the **second lowest unionization rate** in the United States.

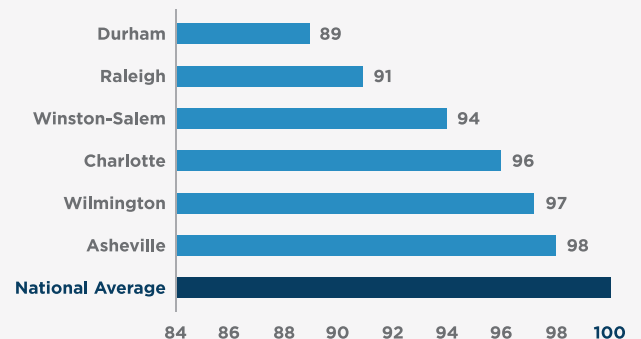
### Low Electricity Costs

North Carolina's electricity costs run nearly **9% below the national average**.

Source: U.S. Energy Information Administration

### Low Cost of Living

The cost of living in many of North Carolina's metropolitan areas is **well below the national average**.



Index (100 = National Average)

Source: Council for Community and Economic Research



## Taxes

### Corporate Income Tax

**4.0%**

The rate will reduce to 3.0% in 2017 or any subsequent year when general fund revenue targets are met. North Carolina has begun to phase in single sales factor apportionment.

### Personal Income Tax

**5.75%**

The rate will drop to 5.499% in 2017 (flat rate).

The standard deduction is \$16,500 for married couples, \$13,200 for heads of household, and \$8,250 for single taxpayers.

### Sales & Use Tax

**6.75% - 7.50%**

The statewide sales tax is 4.75%. Counties levy an additional 2-2.75%. Aviation gasoline and jet fuel are exempt. North Carolina also has exemptions for manufacturing companies.

### Property Tax

**The state does not levy property tax.**

Real and personal property is taxed by local governments.

North Carolina has exemptions for inventories and recycling.

## Incentives

Targeted, performance-based incentive programs complement North Carolina's competitive business cost structure. The Economic Development Partnership of North Carolina helps companies navigate the incentive process.

### Job Development Investment Grant (JDIG)

JDIG is a performance-based, discretionary incentive program that provides cash grants to new and expanding businesses to help offset the cost of locating or expanding a business facility in North Carolina. Companies can qualify for a JDIG based on the project location, number of jobs, and average wage. The grant amount is based on a percentage of the personal income tax withholdings associated with the new jobs. For high-yield projects that invest \$500+ million and create 1,750+ jobs, JDIG can provide a grant worth up to 100% of personal income tax withholdings for 20 years. A company can use JDIG funds for any purpose.

### One North Carolina Fund (One NC)

One NC is a discretionary cash-grant program that allows the Governor to respond quickly to competitive job-creation projects. The local government must provide an incentive to match the One NC funding. Awards are based on the number of jobs created, level of investment, location of the project, economic impact of the project, and the importance of the project to the state and region. Awards may be used for installation or purchase of equipment, structural repairs and renovations, and construction or improvements to utility lines and associated equipment in new or existing buildings.

### Public Infrastructure & Transportation Programs

North Carolina offers a number of different programs to fund public infrastructure development, including:

- Community Development Block Grant Economic Development Program
- Utility Account
- Rural Division's Economic Infrastructure Program
- NC Department of Transportation's Rail Industrial Access Program
- NC Department of Commerce & NC Department of Transportation's Joint Economic Development Program

### Building Reuse Programs

North Carolina offers two different programs that provide grants to renovate and upfit vacant industrial and commercial buildings including:

- Community Development Block Grant Building Reuse Program
- Rural Division's Building Reuse Program

### Other Incentive Programs

- NCWorks Customized Training Program
- Foreign Trade Zones
- Golden LEAF Foundation Grants



# SKILLED WORKFORCE & INDUSTRY SUPPORT

North Carolina offers one of the nation's most renowned education systems, supplying companies a pipeline of skilled workers and access to research & development resources.



## Universities

### Undergraduate and Graduate Degrees

*Elite higher education institutions across the state support North Carolina's workforce.*

North Carolina has 53 colleges and universities. From Appalachian State University in the West to East Carolina University near the coast, the publicly-funded University of North Carolina System draws students from all over the world to its 17 campuses. The state's three Tier 1 research universities: North Carolina State University, Duke University, and the University of North Carolina at Chapel Hill, are at the cutting edge of education and R&D. North Carolina State University offers degree programs in aerospace engineering. The program has conferred 3,750 aerospace engineering degrees since 2000.

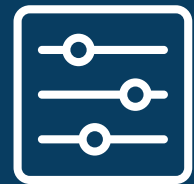


## Community Colleges

### Vocational Degrees

*Pioneering the nation's most advanced programs in vocational and technical education.*

The North Carolina Community College System (NCCCS) is widely regarded as offering some of the most comprehensive and advanced vocational and technical programs in the U.S. More than 800,000 students enroll at one of NCCCS's 58 campuses each year. NCCCS offers degrees and certificates relevant to the aerospace industry such as aviation electronics, computer engineering, aviation systems technology, and welding to name a few. Spirit Aerosystems' Composite Center of Excellence at Lenoir Community College is a training center designed to serve the growing aerospace industry in North Carolina.



## NCWorks

### Customized Training Programs

*Providing customized training and recruiting services for North Carolina businesses.*

The North Carolina Department of Commerce and The North Carolina Community College System (NCCCS) developed NCWorks, a free, customized job training and recruiting program for new and expanding businesses. NCWorks offers comprehensive training via NCCCS's extensive catalog of programs as well as customized curricula tailored to address the specific needs of local business and industry. In fact, NCWorks has trained nearly 37,000 employees from 861 companies across the state. Ninety-two percent of the companies served have been advanced manufacturers.





## Military Workforce

4th Largest Military Population in the United States

*A ready-made workforce with in-demand skills.*

An anticipated 78,000 military personnel will be leaving North Carolina's military bases and re-entering the civilian workforce through 2018. These individuals will have in-demand occupational skills and relevant work experience such as active duty specialization in aerospace propulsion and ground equipment. More than 82% will be 30 years-old or younger. The Marine Corps Air Station at Cherry Point maintains a Fleet Readiness Center (FRC) that provides maintenance, engineering, and logistics support for Navy and Marine Corps aviation activities as well as airframe and engine maintenance for the F-35.



## Industry Resources

Targeted Industry Support

*Concentrated industry support boosts growth and innovation.*

North Carolina has numerous programs, research centers, and customized locations that support the state's aerospace industry. The North Carolina Advanced Manufacturing Alliance (NCAMA) works to accelerate job training, build programs to meet industry needs, and bolster online learning. The NextGen Air Transportation (NGAT) Center focuses on developing improvements to air traffic control, airspace management, airport and airspace system capacity, surface traffic management, and flight safety. North Carolina Global TransPark offers an 11,500 foot runway, onsite rail spur, fiber optic network, and warehouse facilities.

The decision to expand in North Carolina was easy for us with its **magnificent pool of employee talent** and strong state and local partnerships.

*Kevin Carter,  
Former CEO, HAECO America*

## #2 STEM

North Carolina colleges & universities confer 20,500+ Science, Technology, Engineering, and Math degrees & certificates annually, the second highest number of STEM completions in the Southeastern U.S.

**37,000+  
Engineers**

More than 37,000 engineers work in North Carolina.

**108,800  
Degrees**

North Carolina's higher education institutions conferred more than 108,800 associate's, bachelor's, master's, and doctoral degrees in 2014.

**460,000+  
Manufacturing  
Employees**

With 460,000+ employees, North Carolina has the largest manufacturing workforce in the Southeastern U.S.

**4.9 Million  
Workers**

4.9 million workers make up North Carolina's growing labor force.



# MARKET ACCESS & TRANSPORTATION INFRASTRUCTURE

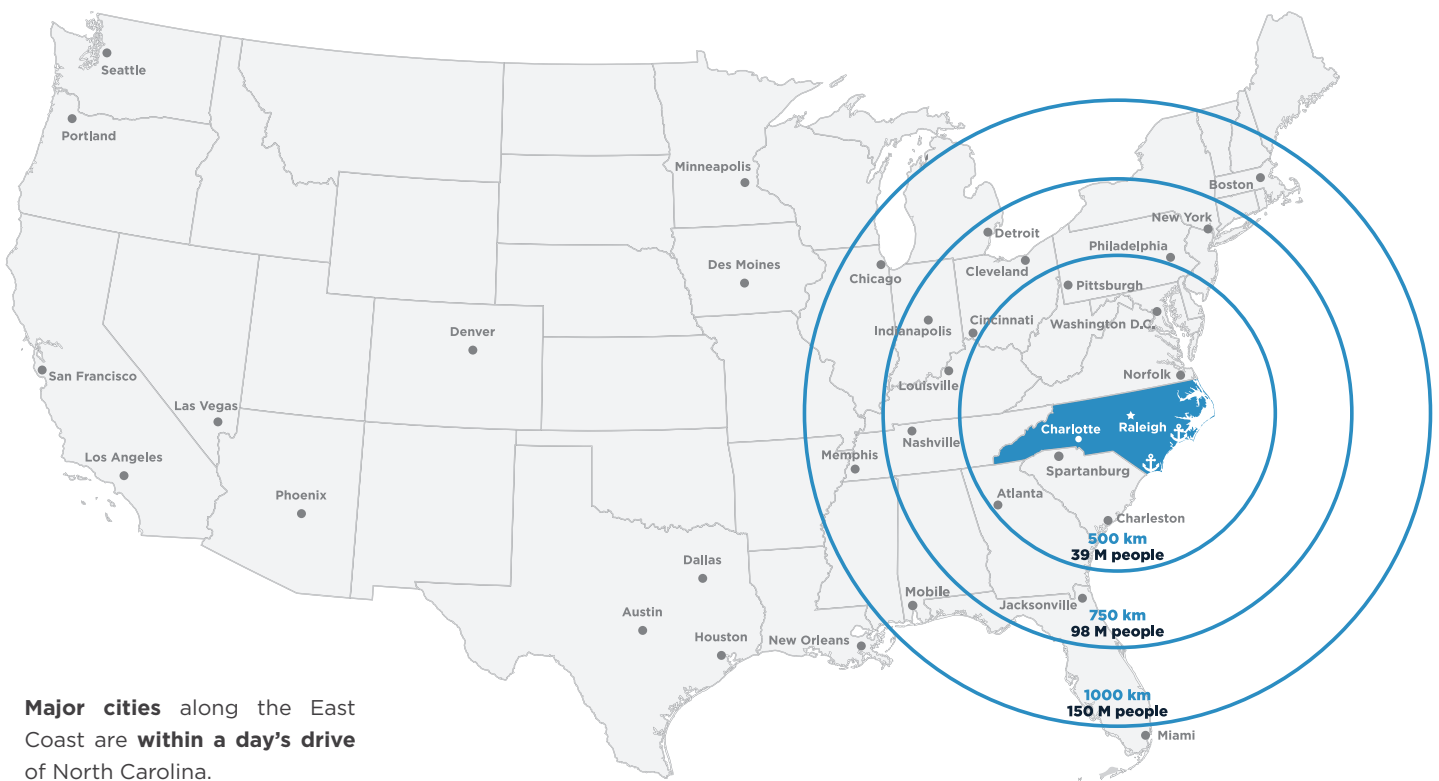
North Carolina's robust transportation infrastructure connects companies to domestic and international markets. Four international and eleven regional airports connect North Carolina to major cities in the U.S. and abroad. North Carolina also has the second largest state-owned highway system and major controlled-access

arteries such as I-95 (running the length of the East Coast), I-85, and I-40 (running from NC to California). Two deepwater seaports and an integrated rail system ensure that North Carolina companies stay connected to suppliers and customers.

“

North Carolina was chosen for the **location**, for the **utility and transportation advantages**, and the state contains an exceptional workforce. In addition, we can service our customer base quicker and provide more **cost-effective transportation**.

Gerardo Muraira,  
Operations Director, Nutec Group







## PORTS

### North Carolina has two deepwater seaports:

North Carolina's ports offer fast turn times and capacity for ships carrying up to 7,000 TEUs (soon to be 10,000 TEUs). Inland terminals in Charlotte and Greensboro provide easy market access.

#### Port of Wilmington

- General cargo and bulk handling facility
- Inside harbor channel depth of 42 feet M.L.L.W.
- 101,000-square-foot on-terminal cold storage facility

#### Port of Morehead City

- Container and general cargo operations
- Inside-harbor channel depth of 45 feet M.L.L.W.



## ROADS

### Second-largest state-owned highway system:

North Carolina's roads stretch for more than 90,000 miles (145,000 km). The state's central East Coast location offers easy access to the country's most important transportation corridors.

#### Major controlled-access arteries include:

- I-95, running the length of the East Coast
- I-40, linking North Carolina to California
- I-85, stretching through the manufacturing heart of the Southeast



## AIR

### The world's sixth-busiest airport is located in Charlotte:

North Carolina offers nonstop service and easy connections to major domestic and international destinations.

### Four international and 11 regional airports provide easy access to domestic and global markets. International airports include:

- Charlotte-Douglas International Airport (CLT)
- Piedmont Triad International Airport (GSO)
- Raleigh-Durham International Airport (RDU)
- Wilmington International Airport (ILM)



## RAIL

### Largest consolidated rail system in the country:

North Carolina's rail connections extend to key markets in the South, East, Midwest, and Canada.

#### Rail system highlights include:

- More than 3,200 miles (5,100 km) of track
- Two Class 1 carriers: CSX Transportation and Norfolk Southern
- Class 1 service to 22 states in the U.S.
- 19 short-line railroads
- Six intermodal terminals and rail hubs





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