West Virginia
Open for Business!

AEROSPACE

INDUSTRY LEADERS

For aerospace companies establishing operations in West Virginia, the sky is not the limit. It is just the beginning. The state is home to a number of successful aerospace companies, including:

- Aurora Flight Sciences
- Bombardier Aerospace
- FCX Systems
- FMW Composite Systems
- Goodrich Corporation
- Emivest Aerospace Corporation
- Alliant Techsystems
- Lockheed Martin Aeronautics
- Pratt & Whitney Engine Services

Aerospace is one of the fastest growing sectors of the West Virginia economy. Higher profitability, lower labor costs and utility savings contribute to the successful operations within the state.

Companies also capitalize upon a large supply of experienced industry workers to help meet their labor needs.

West Virginia provides strategic access to the top domestic purchasing sectors of aerospace products and to national defense contractors, corporations, the federal government and other industrial customers and suppliers.

A West Virginia-based company will find a plentiful supply of primary and fabricated metal products, essential raw materials for the aerospace industry. The availability of supplies and raw materials is a primary consideration in locating aerospace products manufacturers. Raw materials account for over 50 percent of total production costs.

EDUCATION & TRAINING

The Robert C. Byrd Institute (RCBI) Bridgeport Manufacturing Technology Center, located at the Mid-Atlantic Aerospace Complex (MAAC) in Bridgeport, W.Va., has expanded with the addition of the RCBI Composites Technology & Training Center.

As a strategic partnership between RCBI and the National Aeronautics and Space Administration (NASA), the RCBI Composites Technology & Training Center supports the region's growing aerospace industry.

The Robert C. Byrd National Aerospace Education Center in Bridgeport will meet the training needs of this growing state industry. A component of the Fairmont State University School of Technology, it offers an associate degree in Aviation Maintenance Technology and bachelor's degrees in Aviation Technology and Aviation Administration.

West Virginia University offers degrees through the doctorate level in Mechanical and Aerospace Engineering. The program at WVU is designed to prepare the student for a career in the aerospace industry and in government research, as well as in military mission-oriented agencies.

SUPPORT SERVICES

Companies team with the West Virginia aviation manufacturers at the John D. Rockefeller IV Science and Technology Center located at the Eastern West Virginia Regional Airport at Martinsburg, a foreign trade zone. The airport's 7,800-foot main runway and 5,000-foot cross-runway are capable of handling the world's largest airplanes.

The MAAC at the North Central West Virginia Airport is centrally located in Bridgeport and home to many of the state's aerospace companies.

The MAAC provides first-rate maintenance, overhaul, manufacturing and training services for the aerospace industry. Employing some 1,400 people in aviation-related jobs, the MAAC provides a direct wage and benefit impact of about $50 million annually.

HIGHER PROFITABILITY

Profitability is higher and overall operating costs are lower for aerospace products manufacturers in West Virginia compared to the national averages and West Virginia's regional competitor states. Profitability for West Virginia manufacturers averages 3.5 percentage points higher than in the comparison states.

A typical West Virginia manufacturer would enjoy an average total operating cost savings of more than $3.1 million over the comparison states.

Profitability: Aerospace products industry	**U.S.**	**Region**	**W.Va.**	**W.Va. Advantage vs. region**
NAICS 336411 - Aircraft manufacturing	4.1%	9.6%	10.6%	1.0%
NAICS 336412 - Aircraft engine and engine parts manufacturing	4.4%	6.8%	9.9%	3.0%
NAICS 336413 - Other aircraft parts and auxiliary equipment manufacturing	4.1%	4.5%	8.7%	4.1%
NAICS 488190 - Other support activities for air transportation	6.3%	8.2%	18.0%	9.8%
Average	**4.6%**	**8.6%**	**12.1%**	**3.5%**

Source: West Virginia Development Office Cost Model

LOWER LABOR COSTS

A typical aeronautics manufacturer in West Virginia could expect to save an average of more than $2.7 million in total labor (payroll and non-payroll) expenses in comparison to regional competitor states.

West Virginia's annual wage for the industry cluster is 77 percent of the national industry-wide average and 87 percent of the competing state average wage.

Labor costs: Aerospace products industry	U.S.	Region	W.Va.	W.Va. Advantage vs. region
NAICS 336411 - Aircraft manufacturing	$55,481,250	$43,417,660	$41,751,470	($1,666,190)
NAICS 336412 - Aircraft engine and engine parts manufacturing	$23,493,380	$20,771,670	$17,739,720	($3,031,950)
NAICS 336413 - Other aircraft parts and auxiliary equipment manufacturing	$19,077,320	$18,717,370	$15,857,830	($2,859,540)
NAICS 488190 - Other support activities for air transportation	$14,536,780	$13,835,320	$10,236,760	($3,598,560)
Average	**$28,147,180**	**$24,185,510**	**$21,396,450**	**($2,789,060)**

Note: Labor costs are defined as the combined annual costs of wages, workers' compensation,unemployment insurance and other fringe benefits for a national average operating establishment in the indicated NAICS group. Wages are based on the most current available BLS data for the U.S. and the respective states.
Source: West Virginia Development Office Cost Model

UTILITY SAVINGS

West Virginia can offer major savings in energy, with the lowest industrial electric rates in the nation. Aerospace companies realize major savings in energy with an industrial electricity rate nearly 40 percent below the national average.

Utility costs represent a significant portion of operating costs. The cost analysis reveals that a West Virginia facility would achieve utility cost savings averaging $254,000 annually compared to the competing states.

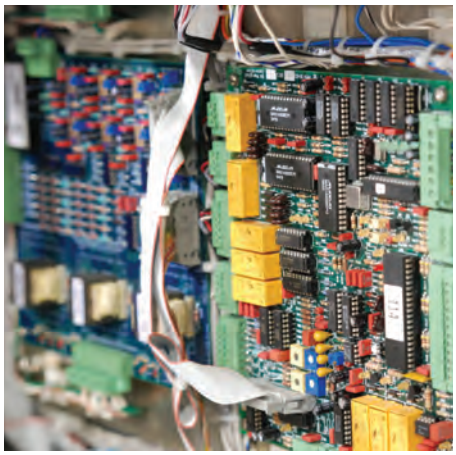
Utility costs: Aerospace products industry	U.S.	Region	W.Va.	W.Va. Advantage vs. region
NAICS 336411 - Aircraft manufacturing	$1,761,810	$1,712,780	$1,297,610	($415,170)
NAICS 336412 - Aircraft engine and engine parts manufacturing	$887,520	$862,820	$653,670	($209,150)
NAICS 336413 - Other aircraft parts and auxiliary equipment manufacturing	$601,460	$584,720	$442,990	($141,730)
NAICS 488190 - Other support activities for air transportation	$1,462,230	$1,411,190	$1,160,070	($251,120)
Average	**$1,178,260**	**$1,142,880**	**$888,590**	**($254,290)**

Source: West Virginia Development Office Cost Model

AIRCRAFT VALUATION BUSINESS TAX SAVINGS

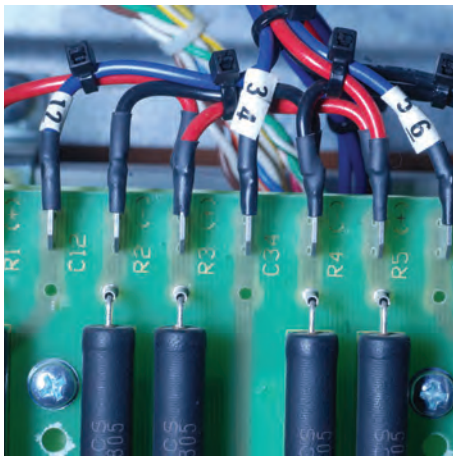
A reduction in the assessed value of all aircraft owned or leased by commercial airlines, charter carriers, private carriers and private companies is provided for property tax purposes.

The special valuation for property tax will result in a tax savings of up to 95% of the tax that would otherwise be payable. For an aircraft having a cost of $10 million, and assuming a market value of $10 million, the reduction represents a tax savings of $123,690.



COMPARATIVE ANALYSIS APPROACH

To confirm the viability of the aerospace products industry as a target industry cluster for West Virginia, a comparative analysis of operating costs and profitability was prepared for a national average operating establishment in West Virginia versus the 10 surrounding and regional states considered to be our principal competitors: Indiana, Kentucky, Maryland, Michigan, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee and Virginia.

The national average operating establishment was based on industry average operating and financial characteristics derived from the most current Annual Survey of Manufactures published by the Census Bureau, Annual Statement Studies published by Robert Morris Associates and national input/output coefficients for various factor costs.

This information was used to develop a detailed annual operating expense statement, which served as a baseline for estimating costs for West Virginia and the comparison states. These national baseline costs were adjusted by state-specific cost differentials for various factors (wage rates, utility rates, etc.) to derive operating costs for West Virginia and the comparison states.