Washington State Aerospace Competitiveness Analysis

AFA Annual Summit 2025

September 23, 2025









Outline



- **Background and purpose**. The opportunity and Washington aerospace assets.
- **Compare** Washington's aerospace and space industry performance against other select competitor states.
- Review incentives and other programs offered in other states to support and grow the aerospace sector.
- Identify potential areas Washington could explore and pursue to support long-term growth in the aerospace sector.

AFA | Aerospace Competitiveness Report

The Opportunity



Future aerospace growth

Forecast Source	Forecast Years	Projection
The Boeing Company: Commercial Market Outlook (2025)	2025-2044	43,600 new aircraft deliveries 2025–2044: 33,285 single-aisle, 7,815 widebody, 1,545 regional, 955 freighters.
The Boeing Company: Services Market Outlook (2025)	2025-2044	\$4.7T services market over 2025–2044.
Airbus: Global Market Forecast (GMF) (2025)	2025-2044	43,420 new deliveries, including 34,350 single-aisle aircraft.
Oliver Wyman (2025)	2025-2035	\$119.7B MRO market in 2025, rising to \$156B by 2035; fleet CAGR ~2.8% (2025–2035). 2.7% global fleet forecast between 2025 and 2030, and 2.9% between 2030 and 2035.
FAA	2025-2045	U.S. enplanements +2.5% CAGR (2025–2045)
McKinsey & Co.: Space Industry Forecast (2024)	2024-2035	\$1.8 trillion by 2035 (accounting for inflation), up from \$630 billion in 2023.

- Boeing is anticipated to launch new single aisle.
- Airbus opened second production line in Alabama.
- Competitive space is growing and becoming more intense.

Washington's Aerospace

Leading indicators



- 80,260 direct workers, plus many more among suppliers.
- 2.2% state non-farm employment.
- Largest state for Boeing employment (67,000).
- Average wage (2024, pre-benefits): \$134,400 (45% higher than statewide average).
- Total economic impact: nearly 200,000 jobs.
- Direct state B&O payments: \$118.4 million (2024).
 - Between 1% and 3% state B&O collections each year.
- Space sector: 5,800 direct jobs (2022; PSRC study).
- \$48M in Boeing employee charitable contributions, global, 2024.



Competitor States

AEROSPACE FUTURES ALLIANCE

Key attributes and activities per competitor state

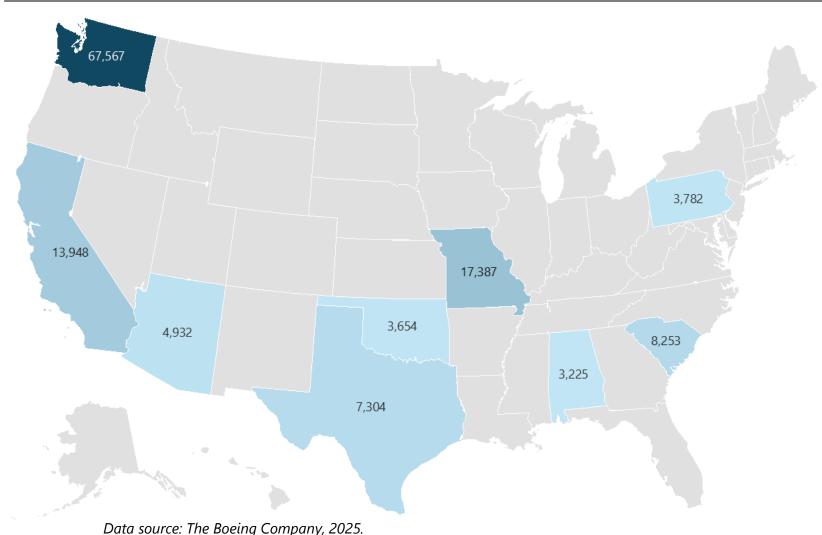
State	Focus Area(s)	Illustrative Companies and Organizations
Alabama	Rocket engines & space	NASA Marshall; ULA; Blue Origin
California	Launch & advanced R&D	SpaceX; JPL; Skunk Works
Florida	Launch & spacecraft	KSC; Cape Canaveral; Blue Origin
Idaho	GA mods & space power	Tamarack; Western Aircraft; INL
Kansas	Airframe manufacturing	Spirit Aero; Textron; Garmin; NIAR
New Mexico	Spaceport & test ranges	Spaceport America; WSMR; SolAero
North Carolina	Light jets, MRO	HondaJet; HAECO; Boom Supersonic
Ohio	Engines, R&D, Air Force	NASA Glenn; Wright-Patt; GE Aerospace
Oklahoma	MRO & sustainment	Tinker AFB; AA Tech Ops; Boeing OKC
South Carolina	Widebody & fighter assembly	Boeing 787; Lockheed F-16; GKN
Texas	Human spaceflight & rockets	NASA JSC; SpaceX Starbase; Axiom
Virginia	Launch & aero R&D	NASA Langley; Wallops; Northrop

- Aerospace hubs extend across most U.S. states.
- Florida, California, Texas are leading hubs for space technology, including launch systems.

The Boeing Company

Employment by state, December 2024





- The Boeing Company employed 147,363 workers across the U.S. in December 2024, and an additional 25,086 workers globally.
- Washington remains the largest hub of Boeing employment, nearly 4x as many workers as the second largest state, Missouri.

Aerospace Performance Indicators



Employment by aerospace NAICS codes by state, 2024

State	Employment	Change
State	2024	2014-2024
California	97,910	23,310
Washington	80,260	(13,700)
Texas	56,890	5,010
Florida	36,820	14,950
Kansas	31,430	890
Ohio	20,500	2,240
Alabama	17,200	2,480
Oklahoma	13,640	6,540
South Carolina	8,880	1,830
North Carolina	6,830	1,170
Virginia	5,240	1,140
Idaho	820	500
Subtotal, Comp States	376,420	46,360

- Among comparator states (excluding Washington), total employment increased by 60,000.
- Nationally, aerospace & space jobs totaled nearly 589,400 in 2024, a 14% increase over 2014.
- The largest states for growth— California and Florida—primarily in space sector.

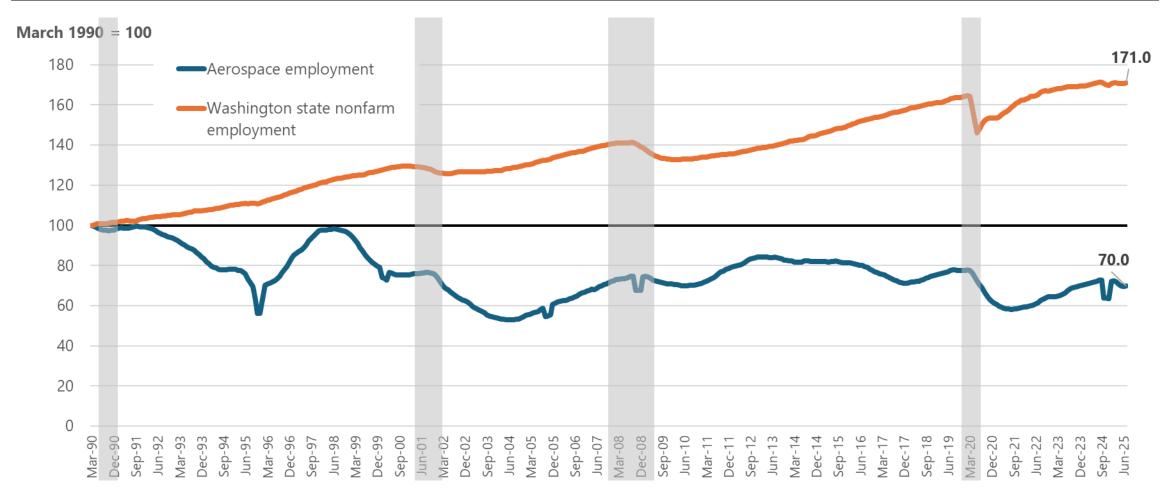
Data source: U.S. Bureau of Labor Statistics, 2025.



Washington Aerospace Employment



Monthly employment indexed to 1990, using three-month moving average



U.S. Bureau of Labor Statistics, 2025, based on 3mma.







- Washington does not have a federal space R&D program but has emerged as a leading hub for post-2000 satellites, space-related communications, and data.*
- 60+ companies.
- SpaceX, Blue Origin, L3 Harris, Boeing.
- According to a PSRC study, in 2022 the space sector in Washington directly employed 5,800 workers.

State	Facility
California	Ames Research Center
California	Armstrong Flight Research Center
California	Jet Propulsion Laboratory
Texas	Johnson Space Center
Virginia	Langley Research Center
Florida	Kennedy Space Center
Alabama	Marshall Space Flight Center
Ohio	Glenn Research Center



^{*}Stan Schull, Alliance Velocity, LLC, 2025.

Factors Driving Aerospace and Space



- Talent availability.
- Business climate and regulatory regime.
- Cluster/ecosystem of suppliers and supporting firms.
- Availability and costs for: land, labor, capital, and energy.
- Government policies and programs that support the above and/or mitigate costs.

AFA | Aerospace Competitiveness Report

10

Washington's Aerospace Competitiveness



Performance with competitor state subset

Measure	Washington Relative to Competitor States
Aerospace wages	2 nd most expensive.
Manufacturing real GDP, change (%) 2014- 2024	Largest negative change. And per worker down from 2015.
Business taxes (state and local) per employee	2 nd highest.
Workers comp rates	2 nd highest.
Employer unemployment contributions, as percentage of wages	Most expensive.
Cost of living index	2 nd highest.
Industrial electricity rates	4 th cheapest, but down from lowest in country.

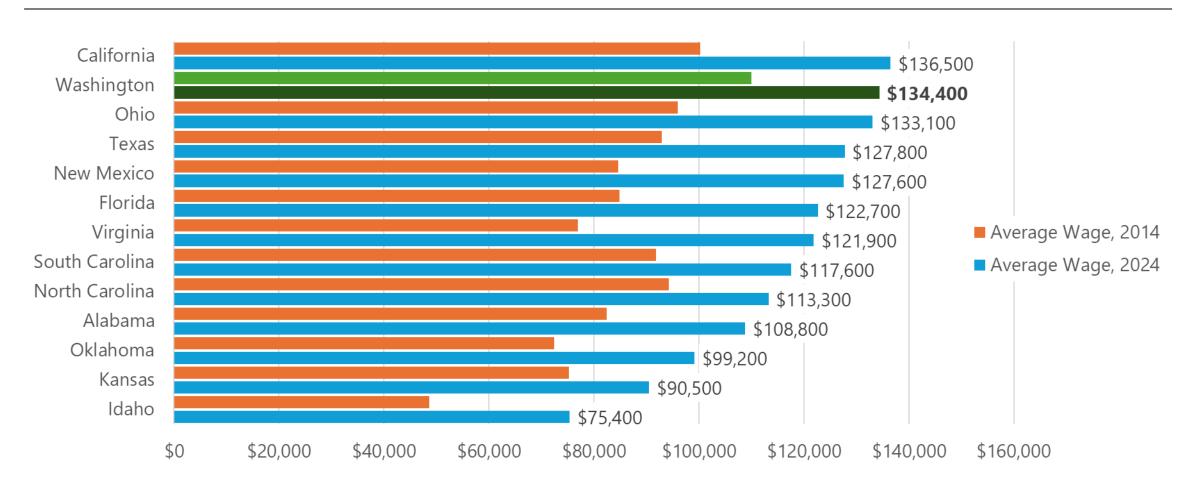
AFA | Aerospace Competitiveness Report

11

Aerospace Leading Indicators by State



Aerospace and space wages, 2024



Data source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2025.

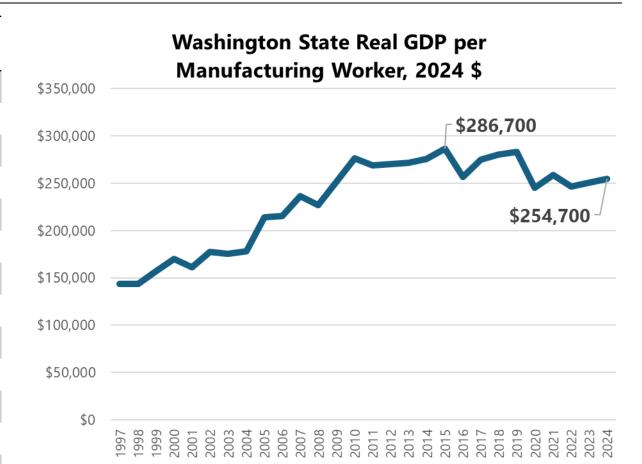


Aerospace Leading Indicators by State



Manufacturing GDP

State	Manufacturing GDP Millions \$	Change, Real GDP 2014-2024
California	\$405,643	3.1%
Texas	\$300,250	2.1%
Ohio	\$137,871	0.4%
North Carolina	\$108,070	-0.6%
Florida	\$80,704	4.0%
Washington	\$68,261	-1.3%
Virginia	\$54,709	0.6%
Alabama	\$50,115	2.2%
South Carolina	\$47,222	1.6%
Kansas	\$33,164	1.9%
Oklahoma	\$21,172	-0.9%
Idaho	\$11,467	2.7%
New Mexico	\$5,271	2.6%



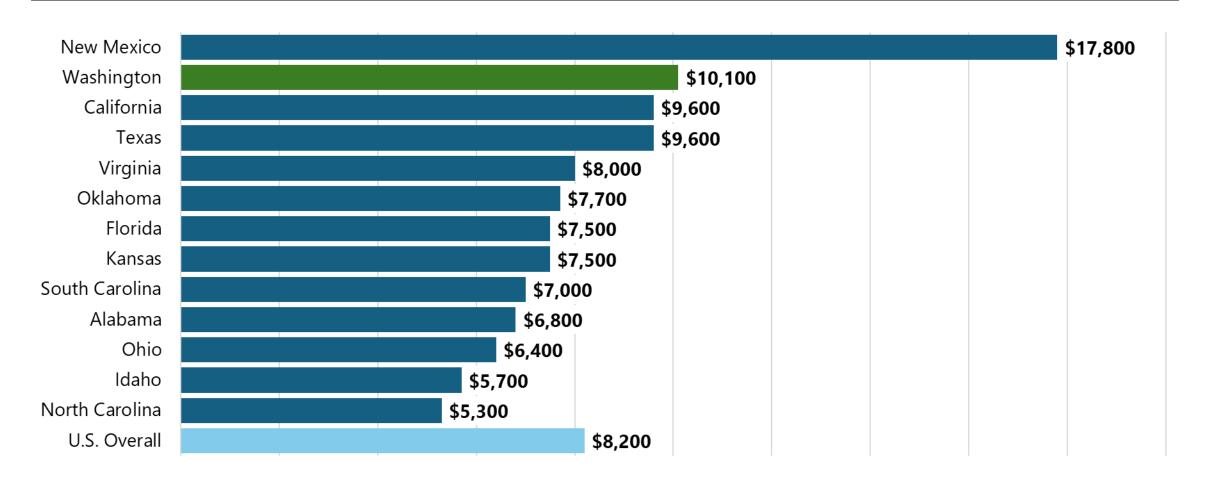
Data sources: U.S. Bureau of Economic Analysis, 2025; Washington State Employment Security Department, 2025; High Peak Strategy LLC, 2025.



State-by-State Business Costs



State and local business taxes per employee, FY 2023



Source: Council on State Taxation, 2025.



State-by-State Business Costs

AEROSPACE FUTURES ALLIANCE

Workers' comp rates, 2024

State	Index Rate	Group Rank	National Rank	2024 Industry- Weighted Rate	National Rank
California	1.86	1	4	1.59	2
Texas	0.78	11	40	0.35	51
Ohio	0.68	13	47	0.55	42
North Carolina	0.95	9	33	0.67	36
Florida	1.00	8	30	1.03	12
Washington	1.35	2	12	1.39	7
Virginia	0.73	12	44	0.50	45
Alabama	1.11	4	24	0.78	25
South Carolina	1.03	7	29	0.84	22
Kansas	0.91	10	35	0.62	39
Oklahoma	1.33	3	15	0.84	22
Idaho	1.10	5	25	1.12	10
New Mexico	1.05	6	27	0.72	30

Source: State of Oregon Department of Consumer and Business Services (June 2025). "Oregon Workers' Compensation Premium Rate Ranking."



State-by-State Business Costs



Unemployment insurance rates, employer contributions by state, 2024

State	As Percent Total Wages	In-group Rank	National Rank
California	0.35%	6	33
Texas	0.32%	9	36
Ohio	0.50%	3	20
North Carolina	0.33%	7	34
Florida	0.10%	11	51
Washington	0.73%	1	9
Virginia	0.08%	12	52
Alabama	0.08%	12	52
South Carolina	0.24%	10	40
Kansas	0.33%	7	34
Oklahoma	0.42%	4	28
Idaho	0.41%	5	29
New Mexico	0.58%	2	14

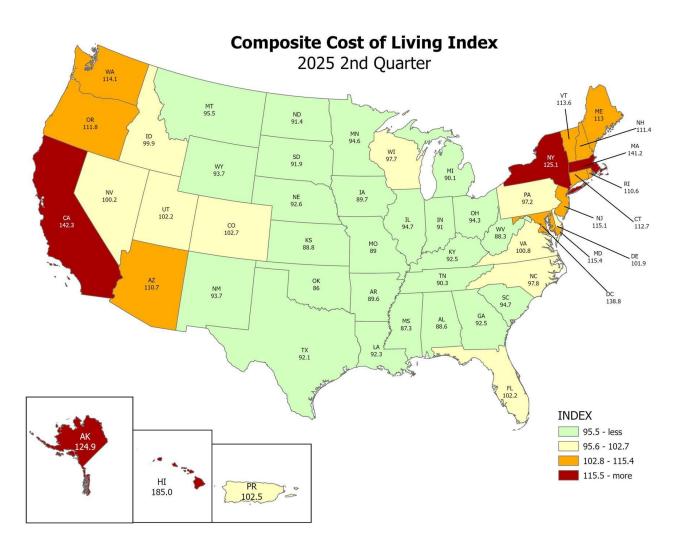
 Under Washington's recently passed Senate Bill 5041 (effective January 1, 2026), striking workers may become eligible for up to six weeks of unemployment insurance.

Source: U.S. Bureau of Labor Statistics (2025). "Estimated Employer Contribution Rates, Calendar Year 2024."

Cost of Living Index by State

Composite cost of living index, 2025 Q2





- Washington state ranked as the 9th most expensive state in the U.S. in Q2 2025.
- The Seattle region ranks among the most expensive for housing in the U.S.
- High cost of living makes it more difficult to recruit and retain qualified aerospace workers.

Source: Missouri Research and Information Center, 2025.

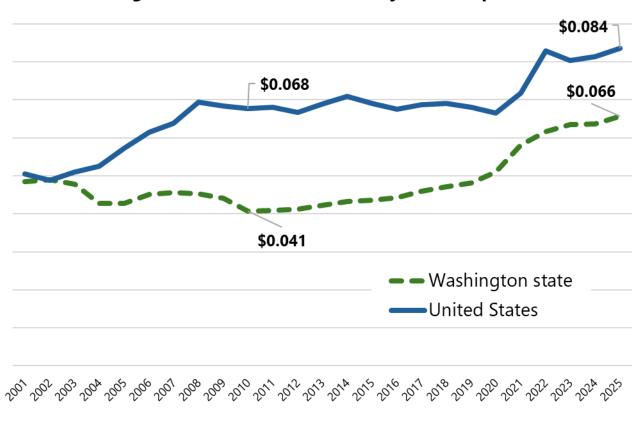


Electricity Prices

Cost per kilowatt-hour, 2001-2025



Average Annual Industrial Electricity Rates (\$ per kWh)



Source: U.S. Energy Information Administration, 2025.

Washington Annual Average Industrial Electricity Prices

Year	Cost per kWh	State Rank
2010	\$0.04	1
2011	\$0.04	1
2012	\$0.04	1
2013	\$0.04	1
2014	\$0.04	1
2015	\$0.04	1
2016	\$0.04	1
2017	\$0.05	1
2018	\$0.05	1
2019	\$0.05	1
2020	\$0.05	4
2021	\$0.06	3
2022	\$0.06	1
2023	\$0.06	5
2024	\$0.06	6
2025	\$0.07	6





Categories of incentives

- Those **specific to aerospace**, e.g., aerospace Texas's Space Trust Fund, Kansas's Aviation & Aerospace Tax Credit, Oklahoma's Aerospace Engineer Workforce Tax Credits.
- Programs not specific to aerospace, but with wide applicability to aerospace and advanced manufacturing, e.g., Ohio Job Creation Tax Credit.





Program	Description
Machinery & Equipment (M&E) Sales/Use Tax Exemption	Exempts qualifying manufacturing & R&D equipment from sales/use tax (RCW 82.08.02565 / 82.12.02565).
Governor's Strategic Reserve Fund (SRF)	Discretionary funds for job creation/retention—can support workforce, site, relocation, etc. (RCW 43.330.250).
Community Economic Revitalization Board (CERB)	State loans/grants for public infrastructure (roads, utilities, broadband) tied to private investment/job creation.
Commerce grants & cluster tools	Commerce runs periodic competitive grants (e.g., clean energy, site readiness) and supports strategic industries.

Washington's preferential B&O rate for aerospace was repealed in 2020 after WTO ruling.



Aerospace-specific incentives

State	Program	Туре
North Carolina	Aircraft Maintenance Parts & Accessories Exemption	Sales & use tax exemption
North Carolina	Advanced Air Mobility (AAM) Planning Grants	Planning/infrastructure (grant)
South Carolina	Aircraft maintenance parts & supplies exemption	Sales & use tax exemption
California	Space Flight Property Tax Exemption	Property tax exemption
Texas	Space Exploration & Aeronautics Research Fund (SEARF)	Grants
Florida	Spaceport Improvement Program (SIP)	Infrastructure
Florida	The Secure U.S. Leadership in Space Act	Financing / PPP
Idaho	Aircraft Engine Repair & Overhaul Exemption	Sales & use tax exemption
New Mexico	Gross Receipts Tax (GRT) Deduction for Spaceport Operations	Training grant / Grants
New Mexico	Spaceport America State Capital/Infrastructure Support	Planning/infrastructure
Oklahoma	Aerospace Engineer Workforce Tax Credits	Tax credits
Virginia	Aircraft Parts & Maintenance Exemption	Sales & use tax exemption
Alabama	Exemption for Parts/Components Used to Refurbish Certain Aircraft	Sales & Use Tax Exemption
Kansas	Aviation & Aerospace Tax Credit	Tax credits
Kansas	ALOFT	Workforce/Training

AFA | Aerospace Competitiveness Report



Examples of state-level workforce development program use cases

State	Program	Use Case
Texas	Texas Skills Development Fund	In 2025, Texas awarded Lockheed Martin + Dallas College \$459,920 SDF to train ~230 workers at Lockheed for aerospace engineering and manufacturing skills.
Florida	Florida Job Growth Grant Fund	In 2018, provided \$3.79 million workforce grant to Eastern Florida State College to train for aerospace & advanced manufacturing workers.
South Carolina	readySC	In 2018, supported Boeing South Carolina's North Charleston operation through structured pre-hire training.
North Carolina	NCEdge	Between 2008 and 2014, ~\$2.6 million in employer-specific customized training for Sprit AeroSystems through Lenoir Community College, including recruiting/screening and composites/assembly upskilling at the Global TransPark Composite Center of Excellence.
Kansas	ALOFT	In June 2023, Kansas awarded nearly \$20M in workforce grants to expand aviation workforce training. Recipients included Spirit AeroSystems \$3.325M; Textron Aviation (\$3.325M), Learjet (\$3.325M), Orizon Aerostructures (\$3.325M); and Metal Finishing Company (\$243K).
Ohio	Job Creation Tax Credit	Ohio landed Anduril's "Arsenal-1" with a 30-year, 2.594% tax credit estimated at ~\$450M, contingent on Anduril creating 4,008 jobs and >\$530M in annual payroll.

AFA | Aerospace Competitiveness Report



Jobs-related tax credits—examples

State	Program(s)	Description
Ohio	Job creation and retention tax credits	Performance-based credits.
North Carolina	Job Development Investment Grant	Annual grant based on % state personal income tax withholdings from new jobs.
South Carolina	Job tax credits and development credits	Refund portion of new employee from state withholding to offset project costs.
California	New Employment Credit (NEC)	Credit for hiring qualifying full-time employees in designated areas/industries.
Texas	Jobs, Energy, Technology & Innovation Act; Texas Enterprise Zone Program	10-year value limitation agreements on school M&O taxes for eligible capital-intensive projects; State sales & use tax refund for capital investment and job creation in designated zones or by nominated projects.
Florida	Rural & Urban Job Tax Credits	Job credits for firms creating jobs in designated rural or urban areas.
New Mexico	High-Wage Jobs Tax Credit	Credit for new high-wage jobs created and held for at least a year.
Oklahoma	Investment/New Jobs Tax Credit Package	Choice between a credit on qualified new investment (multi-year)
Virginia	Major Business Facility Job Tax Credit	Job credit for large new facilities or expansions.
Alabama	Jobs Act Investment Credit, Jobs Act, and Jobs Credit	Annual credit for qualified capital investment. Tied to eligible projects.
Kansas	Promoting Employment Across Kansas	Companies can retain a % of state payroll withholding for new jobs for a set term.



Examples of state <u>strategic investment funds</u>

State	Program	Use Case
Ohio	JobsOhio	Up to \$150M in economic-development + workforce grants to help clinch Intel's New Albany fabs. (2022)
North Carolina	JDIG/OneNC	\$87M package to land Boom Supersonic's Overture factory. (2022)
South Carolina	Closing Fund	\$65M to Spartanburg County to support BMW's \$1.7B EV expansion. (2022)
California	California Competes Tax Credit	Awarded Rocket Lab a \$5M tax credit to anchor manufacturing in Long Beach. (2019)
Texas	Texas Enterprise Fund	\$3.7M grant to Collins Aerospace for its Richardson expansion (570+ jobs). (2025)
New Mexico	Local Economic Development Act	Committed \$10M to Universal Hydrogen's Albuquerque manufacturing hub.
Oklahoma	Quick Action Closing Fund	Initially offered up to \$15M for Canoo's EV plant—later trimmed; \$1M was paid after early job milestones. (2022)
Alabama	SEEDS	\$23M in site-readiness grants across 29 industrial sites to speed up future manufacturing investments. (2025)
Kansas	Job Creation Fund	\$600k to Orizon Aerostructures for an aerospace expansion in Chanute. (2020)

AFA | Aerospace Competitiveness Report

24



Infrastructure investments and capital state programs and incentives

State	Program	Description
Ohio	All Ohio Future Fund (AOFF)	State site/readiness funding to prepare large transformational sites and strategic assets.
North Carolina	Industrial Development Fund Utility Account	Grants to local governments for publicly owned infrastructure.
California	California Competes Tax Credit (CCTC)	Negotiated income tax credit for businesses that commit to job creation and investment.
California	California Competes Grant Program (CCGP)	Discretionary cash grant alternative to CCTC for high-impact projects.
Florida	Capital Investment Tax Credit (CITC)	Long-term corporate income tax credit (up to 20 years) for large-capital investment projects in targeted sectors.
Idaho	Tax Reimbursement Incentive (TRI)	Post-performance tax credit up to 30% of income, payroll, and sales taxes for up to 15 years for qualifying expansions/relocations.
New Mexico	Local Economic Development Act (LEDA)	State and local performance-based project funding.
Oklahoma	Industrial Access Road Program	State funding to construct/improve public industrial access roads to new or expanding facilities.
Virginia	Virginia Investment Performance Grant	Performance grant encouraging continued capital investment by existing VA manufacturers and R&D services supporting manufacturing.
Virginia	Economic Development Access Road Program	State funds to design/construct access roads to new or substantially expanding basic employers/sites.
Alabama	State Industrial Development Authority	Grants for site preparation, access, and due diligence

Key Takeaways and Recommendations



- Aerospace (including space) is projected to have continued strong growth over the next two decades.
- Washington state remains a leader in aerospace employment and talent and in sectors that intersect with current and future aerospace technologies, e.g., ICT, clean energy.
- But...global competition is growing, including among other leading states, many of which have compelling incentive programs that are more aggressive and larger in scale than those in Washington.
- Washington needs to pursue new policies in a changing competitive environment to retain and capture future aerospace opportunities.
- About preserving what we have AND attracting new areas of growth.

AFA | Aerospace Competitiveness Report





Thank you!

Spencer Cohen, PhD

Principal & Founder High Peak Strategy LLC

spencer@highpeakstrategy.com
www.highpeakstrategy.com

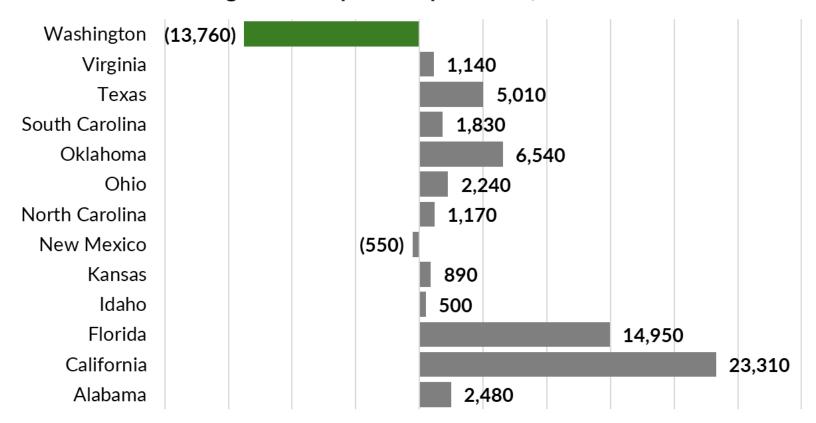


Aerospace Leading Indicators by State



Aerospace and space employment, 2014-2024

Change in Aerospace & Space Jobs, 2014-2024



 Washington has seen a net loss of aerospace jobs between 2014 and 2024.

Data source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2025.



Defining Aerospace and Space



Industry codes and descriptions

- Aircraft Manufacturing (NAICS 336411)
- Aircraft Engine and Engine Parts Manufacturing (NAICS 336412)
- 336413: Other Aircraft Parts and Auxiliary Equipment Manufacturing (**NAICS 336413**)
- Guided Missile and Space Vehicle Manufacturing (NAICS 336414)
- Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing (NAICS 336415)
- Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing (NAICS 336419)
- Satellite Telecommunications (NAICS 517410)
- Space Research and Technology (NAICS 927110)



Jobs-related tax credits

State	Program	Description
Ohio	Job Creation Tax Credit (JCTC)	Performance-based credit equal to a negotiated % of new payroll; refundable against Ohio Commercial Activity Tax (CAT).
Ohio	Job Retention Tax Credit (JRTC)	Credit tied to retaining large numbers of jobs alongside major reinvestment.
North Carolina	Job Development Investment Grant (JDIG)	Annual grant based on a % of state personal income tax withholdings from new jobs.
South Carolina	Job Development Credits (JDC)	Refund of a portion of new employee from state withholding to offset project costs.
South Carolina	Job Tax Credit (JTC)	Job credit based on county tier; may be taken for up to five years per job.
California	New Employment Credit (NEC)	Credit for hiring qualifying full-time employees in designated areas/industries.
Texas	Jobs, Energy, Technology & Innovation Act (JETI)	10-year value limitation agreements on school M&O taxes for eligible capital-intensive projects.
Florida	Rural & Urban Job Tax Credits	Job credits for firms creating jobs in designated rural or urban areas.
New Mexico	High-Wage Jobs Tax Credit	Credit for new high-wage jobs created and held for at least a year.
Oklahoma	Investment/New Jobs Tax Credit Package	Choice between a credit on qualified new investment (multi-year)
Virginia	Major Business Facility Job Tax Credit	Job credit for large new facilities or expansions.
Alabama	Jobs Act Investment Credit	Annual credit for qualified capital investment; transferable (first 5 years).
Alabama	Jobs Act and Jobs Credit	Performance-based credit tied to new payroll for eligible projects.
Kansas	PEAK (Promoting Employment Across Kansas)	Allows approved companies to retain a % of state payroll withholding for new jobs for a set term.

AFA | Aerospace Competitiveness Report