

EDCUTAH INDUSTRY PROFILE | FY 23-24

AEROSPACE

IN UTAH



ON THE COVER

Northrop Grumman NATO AGS Aircraft

Developed by Northrop Grumman, The NATO Alliance Ground Surveillance (AGS) system aircraft will expand NATO's joint intelligence, surveillance, and reconnaissance capability. Northrop Grumman is one of the largest aerospace and defense employers in the state of Utah.

Flourishing Industry, Affordable Business Climate, Superior Workforce

Industry

- Utah is proud to be home to companies like **Boeing, Northrop Grumman, L3 Harris, Parker Hannifin, Hexcel**, and many others. Utah is one of the top states in the nation for aerospace and defense with an employment base of more than 31,000 people.
- Just two of Utah's efforts to align education and industry are the Utah Aerospace Pathways program, which provides training high school students in aerospace manufacturing, and the Advanced Composites Working Group (ACWG), which meets quarterly to address issues currently facing the industry.
- In 2000, the Department of Defense set a mandate to have one third of its fleet **unmanned or autonomous**. Utah, already with a rich history in unmanned systems, has taken this mandate seriously. Utah universities extensively research unmanned systems and related technologies and a variety of Utah companies continue to make strides in the industry.

program facilitated over **20,400 new jobs and more than \$942M in new state revenues**.

- In 2023, the Tax Foundation ranked Utah's "Total Tax Climate" as the **8th best in the nation**. Since 2011, Utah has eliminated or modified over 400 business regulations to ease the burdens placed on businesses.

Workforce

- Utah has high employee concentrations of aerospace engineers, materials scientists, machine operators, and many other aerospace related occupations. Utah also has the **5th lowest union membership rate in the nation at 3.9% (2022)**.
- There are a wealth of aerospace education resources in Utah, with **seven institutions offering specialized programs in aerospace**. Additionally, technical colleges in Utah provide a constant pipeline of machinists, welders, and composite technicians.
- Utah has an abundance of advanced materials companies with **more than 19,000 people employed in the industry**. Utah has industry-recognized expertise in advanced materials applications and unmanned systems development.



Business Climate

- US News ranked Utah the **#1 Best State Overall in 2023**. Utah also ranked 1st in Economy and Fiscal Stability.
- In 2022, Utah's post-performance tax incentives



MAJOR AIRPORTS

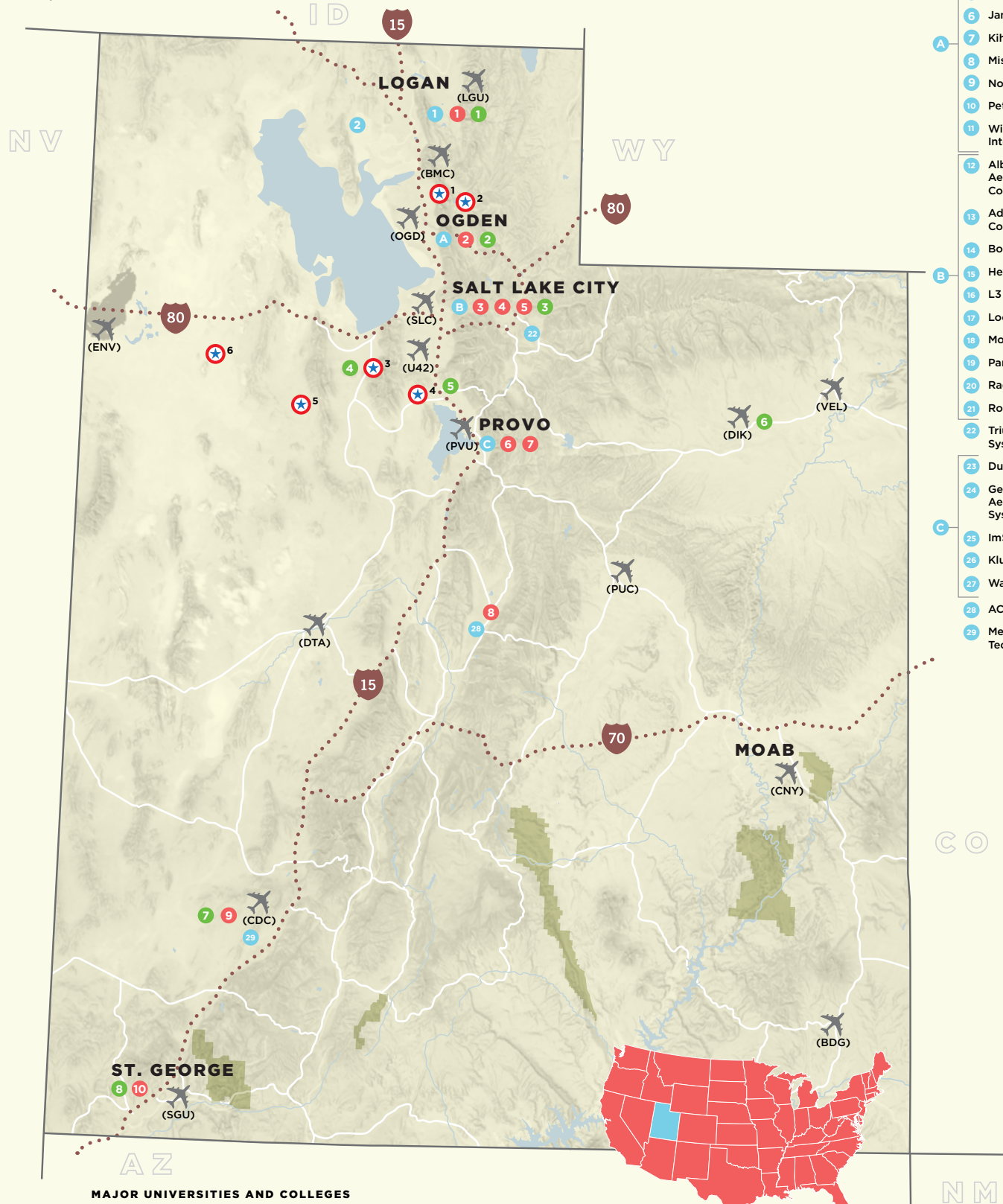
| | | |
|---------------------------------------|--------------------------------------|------------------------------------|
| Logan-Cache Airport (LGU) | Wendover Airport (ENV) | Delta Municipal Airport (DTA) |
| Brigham City Airport (BMC) | Provo Municipal Airport (PVU) | Canyonlands Field Airport (CNY) |
| Ogden-Hinckley Airport (OGD) | Roosevelt Municipal Airport (DIK) | Cedar City Regional Airport (CDC) |
| Salt Lake International Airport (SLC) | Vernal Regional Airport (VEL) | Blanding Municipal Airport (BDG) |
| South Valley Regional Airport (U42) | Carbon County Regional Airport (PUC) | St. George Municipal Airport (SGU) |

UTAH SYSTEM OF TECHNICAL COLLEGES

- | | |
|--------------------|---------------------|
| 1 Bridgerland Tech | 5 Mountainland Tech |
| 2 Ogden-Weber Tech | 6 Uintah Basin Tech |
| 3 Davis Tech | 7 Southwest Tech |
| 4 Tooele Tech | 8 Dixie Tech |

MAJOR EMPLOYERS

- | |
|---|
| 1 TTM Technologies |
| 2 BAE Systems |
| 3 Barnes Aerospace |
| 4 Borsight |
| 5 JBT Aerotech |
| 6 Janicki Industries |
| 7 Kihomac |
| 8 Mission Support |
| 9 Northrop Grumman |
| 10 Petersen |
| 11 Williams International |
| 12 Albany Aerostructures Composites |
| 13 Advanced Composites |
| 14 Boeing |
| 15 Hexcel |
| 16 L3 Harris |
| 17 Lockheed Martin |
| 18 Moog |
| 19 Parker Hannifin |
| 20 Radius Engineering |
| 21 Rockwell Collins |
| 22 Triumph Gear Systems |
| 23 Duncan Aviation |
| 24 General Atomics Aeronautical Systems |
| 25 ImSAR |
| 26 Klune Industries |
| 27 Wavetronix |
| 28 ACT Aerospace |
| 29 Metalcraft Technologies |



MAJOR UNIVERSITIES AND COLLEGES

- | | |
|-------------------------------|----------------------------|
| 1 Utah State University | 6 Utah Valley University |
| 2 Weber State University | 7 Brigham Young University |
| 3 University of Utah | 8 Snow College |
| 4 Westminster College | 9 Southern Utah University |
| 5 Salt Lake Community College | 10 Utah Tech University |



MILITARY AND DEFENSE

- | | |
|-------------------------------|--------------------------------|
| 1 Ogden Air Logistics Complex | 4 Camp Williams |
| 2 Hill Air Force Base | 5 Dugway Proving Ground |
| 3 Tooele Army Depot | 6 Utah Test and Training Range |

Major Aerospace Employers

| COMPANY | EMPLOYEES* | DESCRIPTION |
|---|--------------------|--|
| ACT Aerospace | 100-249 map #28 | ACT Aerospace provides consultation and manufacturing for advanced materials such as autoclave cured composite structures. |
| Advanced Composites | 50-99 map #13 | Advanced Composites is a filament winding company that specializes in aerospace, defense, and commercial applications. |
| Albany Aerostructures Composites | 250-499 map #12 | Albany Engineered Composites manufactures composite structures for a wide variety of military, commercial aircraft, and electronic systems for underwater communications and medical diagnostics. |
| BAE Systems | 500-999 map #2 | BAE Systems provides system engineering and technical assistance and training for the Minuteman III intercontinental ballistic missile (ICBM) weapon system at Hill Air Force Base. |
| Barnes Aerospace | 100-249 map #3 | Barnes Aerospace's Ogden division is an industry leader in complex fabrications, specializing in concurrent engineering development and new product introductions. |
| Boeing | 500-999 map #14 | Boeing in Utah fabricates large composite structures including horizontal stabilizers, vertical fins for the 787-9 Dreamliner, and components for other commercial and military aircraft used internationally. |
| Borsight | 50-99 map #4 | Borsight is a system engineering, integration, and manufacturing services provider. They have expertise in mission functionality as well as human factors analysis. |
| Duncan Aviation | 250-499 map #23 | Duncan Aviation performs business aircraft airframe inspections, pre-buy evaluations, line-level engine avionics, interior support, and is equipped to provide AOG engine (RRT) services. |
| General Atomics Aeronautical Systems | 100-249 map #24 | General Atomics in Spanish Fork provides conceptual development, design, engineering, analysis, fabrication, and testing of airframes and support structures using advanced composite materials. |
| Hexcel | 500-999 map #15 | Hexcel Utah manufactures carbon fiber and hot melt prepregs with both woven and unidirectional reinforcements, with applications in commercial aerospace structures and military programs. |
| ImSAR | 100-249 map #25 | ImSAR designs and manufactures miniature Synthetic Aperture Radar (SAR) technology for unmanned and manned aircraft. |
| Janicki Industries | 100-249 map #6 | Janicki Industries designs and manufactures high precision parts and tooling for aerospace, marine, energy, space, military, transportation, and architecture customers. |
| JBT Aerotech | 250-499 map #5 | JBT Aerotech is a global leader in the design and manufacture of cutting edge ground support equipment including loaders, de-icers, and tow tractors. |
| Kihomac | 100-249 map #7 | Kihomac provides complete lifecycle support for the A-10 Thunderbolt II through contracts with the System Program Office (SPO) at Hill Air Force Base. |
| Klune Industries | 100-249 map #26 | Klune Industries in Spanish Fork provides sheet metal forming, casting, machining, and assembly through their machining and assembly competence center. |

*SOURCE: Utah Department of Workforce Services



The assembly floor of Boeing's large tail structure facility in Salt Lake City.



| COMPANY | EMPLOYEES* | DESCRIPTION |
|--|----------------------|---|
| L3 Harris | 3000-3999 map #16 | L3 Harris is a leading provider of networked communication solutions for high-performance military intelligence collection, imagery processing, and satellite communications. |
| Lockheed Martin | 100-249 map #17 | Lockheed Martin provides logistics, support, maintenance, and distribution for the nation's premier fighter aircraft, including the F-35 Lightning II, F-22 Raptor, F-16 Fighting Falcon, and A-10 Thunderbolt. |
| Metalcraft Technologies | 100-249 map #29 | Metalcraft Technologies is a full-service aerospace components manufacturer that fabricates sheet metal parts, machine precision parts, process and finish parts, and also builds major and minor assemblies. |
| Mission Support | 20-49 map #8 | Mission Support is a certified manufacturer and overhaul and repair facility providing depot-level overhaul services to the US Air Force Material Command, Army Aviation, the FAA, and Naval Aviation. |
| Moog | 250-499 map #18 | Moog Salt Lake City's Aircraft, Space, and Defense Groups houses electronics and electro-mechanical systems teams, system integration teams, and a world-class FAA repair station. |
| Northrop Grumman Innovation Systems | 5000-5999 map #9 | Northrop Grumman Utah manufactures and tests navigation and situational awareness products that are used in platforms from undersea to outer space and supports ICBM and aircraft programs for the USAF. |
| Parker Hannifin | 250-499 map #19 | Parker Hannifin in Utah designs and manufactures components such as thermoplastic elastomers for dynamic applications, as well as complex flight control components for commercial and military aircraft. |
| Petersen | 500-999 map #10 | Petersen provides design engineering, precision machining, and fabrication of tooling and components for advanced aerospace and defense systems. |
| Radius Engineering | 20-49 map #20 | Radius Engineering designs and builds composites manufacturing equipment and process solutions for net-shape composite parts. Their RTM and SQRTM processes are used globally by leaders in the aerospace industry. |
| Rockwell Collins | 20-49 map #21 | Rockwell Collins Salt Lake City designs and develops training and simulation solutions for the aerospace industry. |
| Triumph Gear Systems | 100-249 map #22 | Triumph Gear Systems designs, tests, manufactures, and supports power drive and actuation systems in many aerospace applications, including utility, high lift systems, and flight trim actuation. |
| TTM Technologies | 500-999 map #1 | TTM Technologies manufactures HDI Printed Circuit Boards which are characterized by high-density attributes including laser microvias, fine lines, and high performance thin materials. |
| Wavetronix | 100-249 map #27 | Wavetronix creates tools for intelligent transportation systems (ITS), including advanced radar sensors, power, and communications and data management appliances. |
| Williams International | 500-999 map #11 | Williams International in Ogden is the most modern and efficient small gas turbine engine design-to-production facility in the world. |

*SOURCE: Utah Department of Workforce Services



Prepping a NASA rocket motor for testing at the Northrop Grumman test facility.





The A400M Atlas military transport aircraft. Northrop Grumman produces parts for the aircraft in Utah, including composite wing cover stringers.



Major Announcements



Electric Power Systems To Expand Its Logan Headquarters (2022)

EP Systems plans to bring up to 3,130 new high-paying jobs and invest significant capital expenditure in rural Utah during the next nine years. EP Systems is a leading provider of high-voltage, high-power, certifiable, and scalable power systems for high-reliability applications in the aviation industry. The company is an emerging leader in energy storage and propulsion industries providing solutions to markets primarily in aerospace and defense, with additional reach into automotive, marine, and industrial traction.

Williams International Expands its Ogden Location (2020)

Williams International will expand its operations in Ogden, Utah, creating up to 300 new high-paying jobs in the next seven years. Williams International is a world leader in the development, manufacture and support of small gas turbine engines. The company also provides research and development services for the U.S. defense industry and aftermarket services to its commercial and defense customers. The Williams facility in Ogden is earth's most modern and efficient gas turbine design-to-production facility.

Northrop Grumman to Expand in Weber County (2020)

Northrop Grumman Corporation intends to expand its operations in Weber County, creating up to 2,250 jobs in the next 20 years. Northrop Grumman is currently the largest security and defense company in Utah with more than 5,100 employees across the state, primarily located in Bacchus, Clearfield, Ogden, Promontory and Salt Lake. Northrop Grumman is a leading global security company providing innovative systems, products and solutions in autonomous systems, cyber, C4ISR, space, strike, and logistics and modernization to customers worldwide.

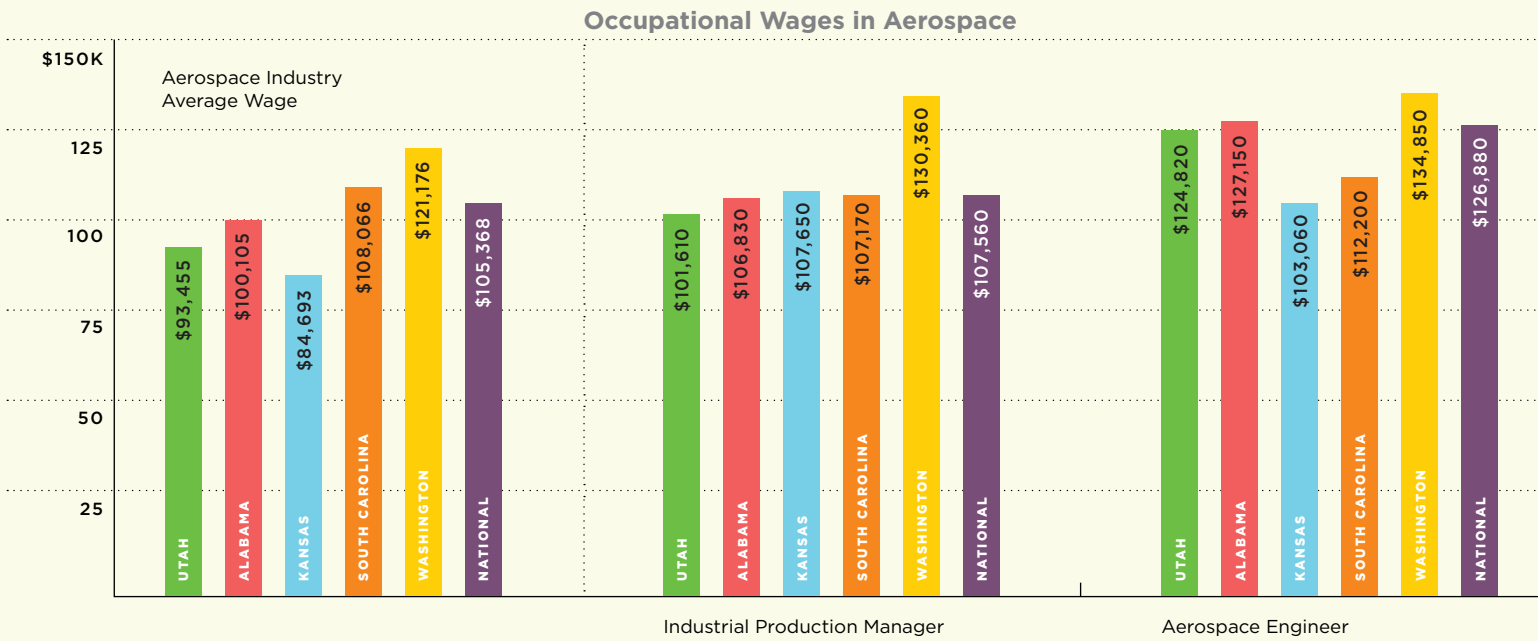
L3 Harris to Expand in Salt Lake Location (2019)

L3 Harris will expand its operations in Utah, adding up to 250 jobs and \$6.7 million in new state revenue over the next nine years. As a top 10 defense contractor, L3 Harris plays a critical role in designing and manufacturing products for the protection and defense of freedoms worldwide. The company began operating in Utah in the 1950s, and since then has grown to become a world-leader in connecting space, airborne, ground, and sea-based platforms with secure, real-time data.

Duncan Aviation Expansion Moves one Step Closer (2016)

Duncan Aviation's proposed expansion will add up to 700 jobs and include more than \$50 million in capital investment. "Six years ago, 14 Duncan Aviation team members ventured west to start Duncan Aviation's newest heavy maintenance location," said Bill Prochazka, COO of Duncan Aviation's Provo location. "We were met with enthusiasm and professionalism from every direction through our discussions with the state, Utah County and Provo City."

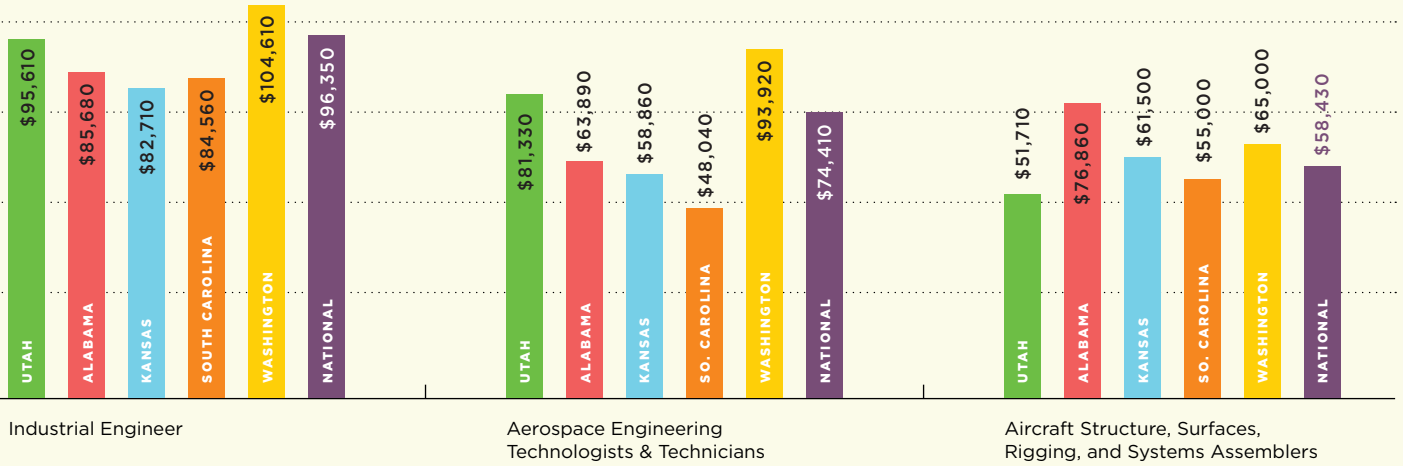
Cost Profile



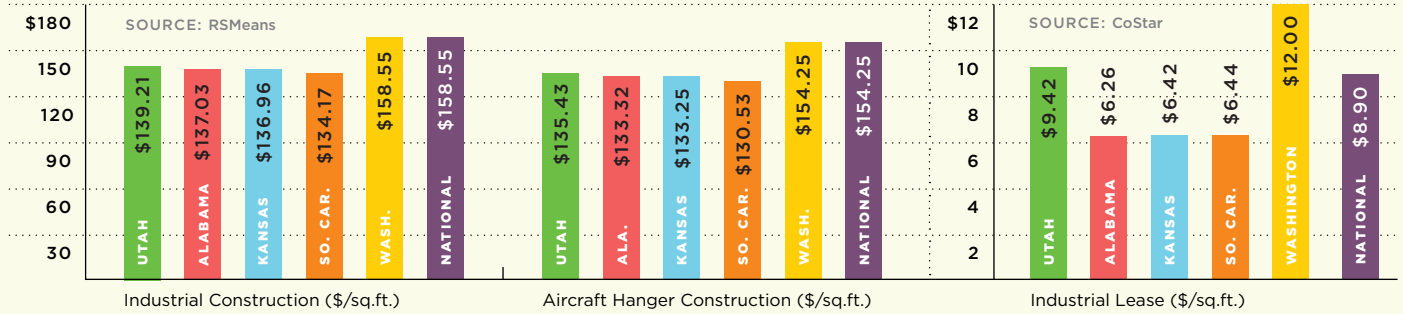
Other Comparative Wages in Aerospace

| OCCUPATION | UTAH | ALABAMA | KANSAS | SOUTH CAROLINA | WASHINGTON | NATIONAL |
|---|-----------|----------|----------|----------------|------------|-----------|
| Chemical Engineer | \$80,400 | \$95,200 | \$87,900 | \$92,900 | \$115,800 | \$113,900 |
| Mechanical Engineer | \$97,600 | \$92,700 | \$81,200 | \$86,600 | \$102,300 | \$96,400 |
| Industrial Engineering Technologists & Technicians | \$53,400 | \$60,100 | \$57,900 | \$58,400 | \$72,200 | \$61,800 |
| Materials Scientists | \$109,900 | \$98,500 | \$94,900 | \$94,400 | \$107,000 | \$103,200 |
| Team Assemblers | \$37,800 | \$35,800 | \$39,300 | \$38,000 | \$41,300 | \$38,600 |
| Machinists | \$56,400 | \$50,000 | \$43,600 | \$40,400 | \$62,700 | \$50,400 |
| Molding, Coremaking, Casting Machine Setters, Operators, Tenders, Metal & Plastic | \$39,200 | \$35,200 | \$35,500 | \$38,300 | \$41,500 | \$38,000 |
| Helpers Production Workers | \$31,600 | \$27,800 | \$31,000 | \$31,200 | \$39,300 | \$34,000 |

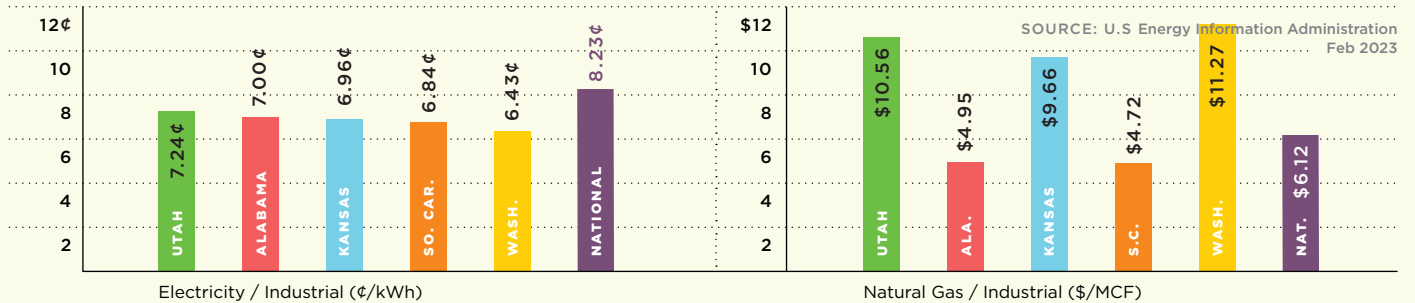
SOURCE: Bureau of Labor Statistics, May 2022



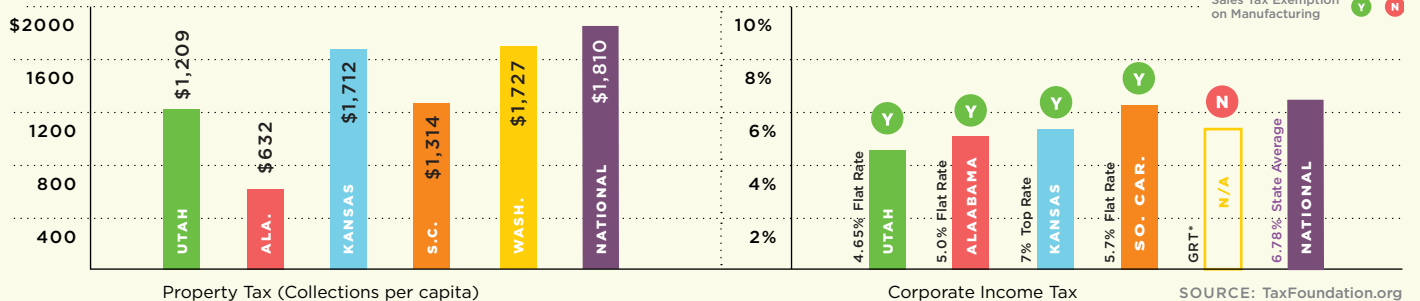
Real Estate



Utilities



Taxes

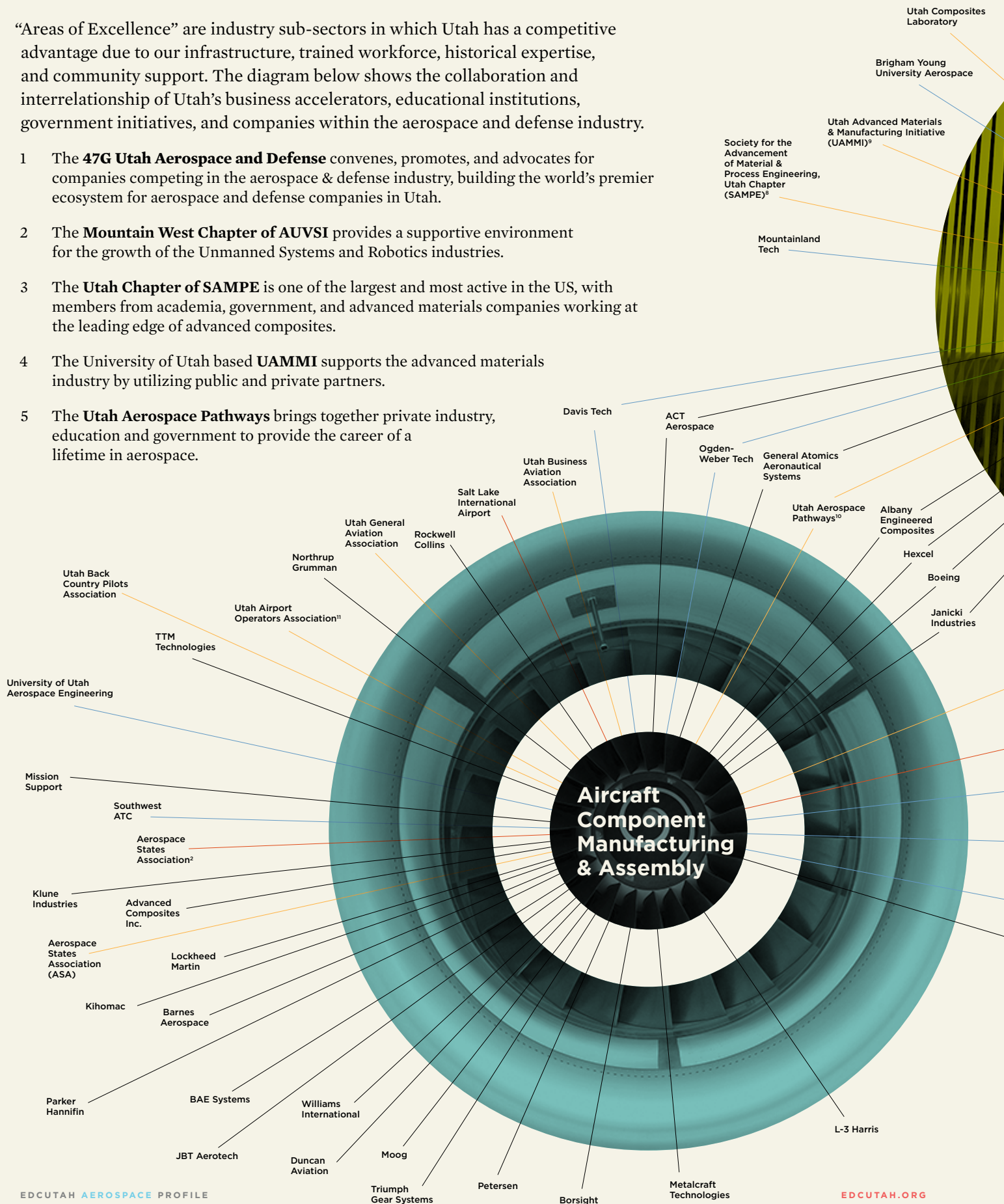


* GRT = Gross Receipts Tax. Businesses are taxed on ALL business sales transactions instead of corporate income.

Areas of Excellence

“Areas of Excellence” are industry sub-sectors in which Utah has a competitive advantage due to our infrastructure, trained workforce, historical expertise, and community support. The diagram below shows the collaboration and interrelationship of Utah’s business accelerators, educational institutions, government initiatives, and companies within the aerospace and defense industry.

- 1 The **47G Utah Aerospace and Defense** convenes, promotes, and advocates for companies competing in the aerospace & defense industry, building the world’s premier ecosystem for aerospace and defense companies in Utah.
- 2 The **Mountain West Chapter of AUVSI** provides a supportive environment for the growth of the Unmanned Systems and Robotics industries.
- 3 The **Utah Chapter of SAMPE** is one of the largest and most active in the US, with members from academia, government, and advanced materials companies working at the leading edge of advanced composites.
- 4 The University of Utah based **UAMMI** supports the advanced materials industry by utilizing public and private partners.
- 5 The **Utah Aerospace Pathways** brings together private industry, education and government to provide the career of a lifetime in aerospace.





Advanced Materials

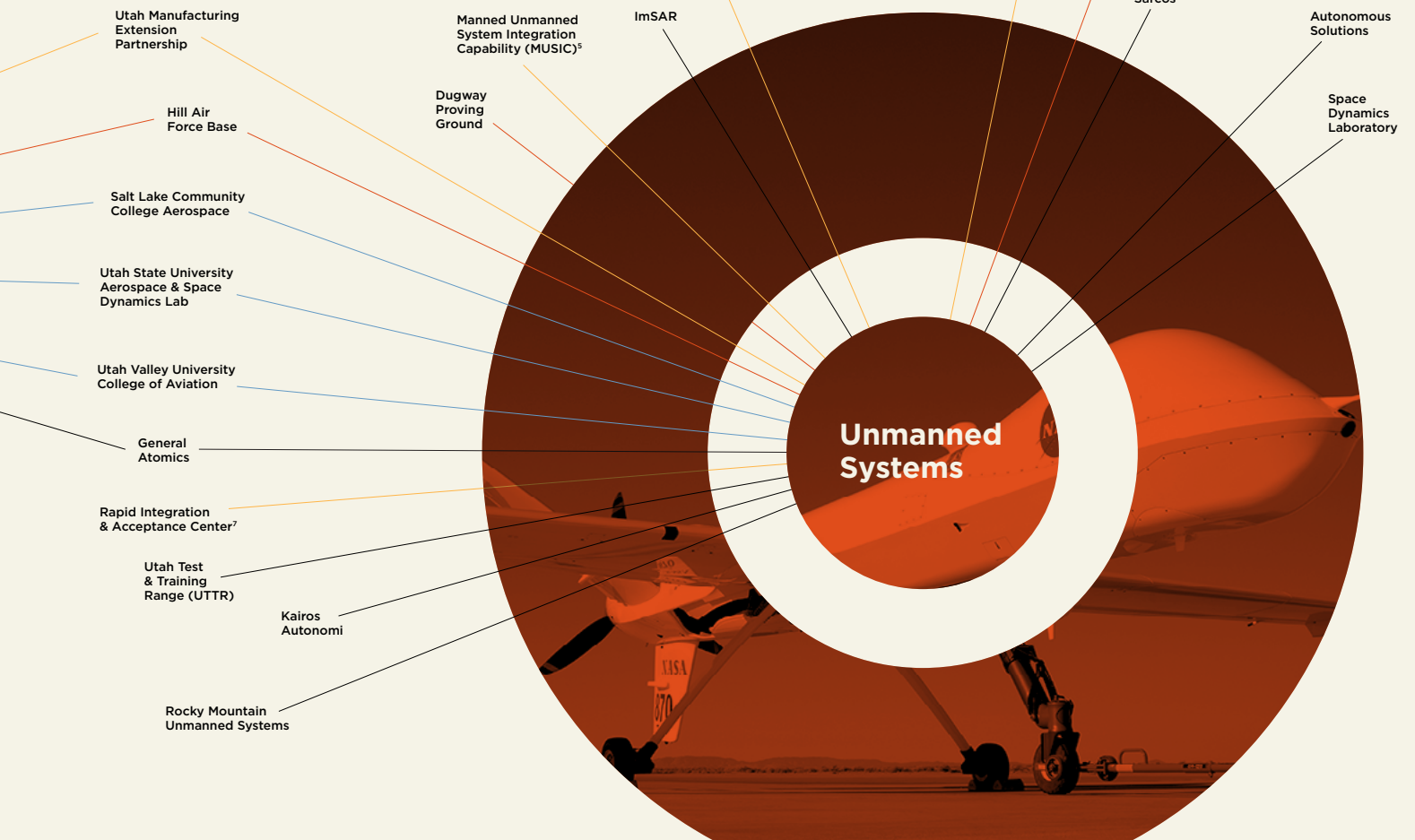
LINE KEY

Companies

Accelerators

Infrastructure

Educational Institutions



Unmanned Systems

AVUSI Mountain
West Chapter³

Utah Test &
Training Range

Sarcos

Autonomous
Solutions

Space
Dynamics
Laboratory

Center for Unmanned
Aircraft Systems (C-UAS)⁴

ImSAR

Manned Unmanned
System Integration
Capability (MUSIC)⁵

Dugway
Proving
Ground

Utah Manufacturing
Extension
Partnership

Hill Air
Force Base

Salt Lake Community
College Aerospace

Utah State University
Aerospace & Space
Dynamics Lab

Utah Valley University
College of Aviation

General
Atoms

Rapid Integration
& Acceptance Center⁷

Utah Test
& Training
Range (UTTR)

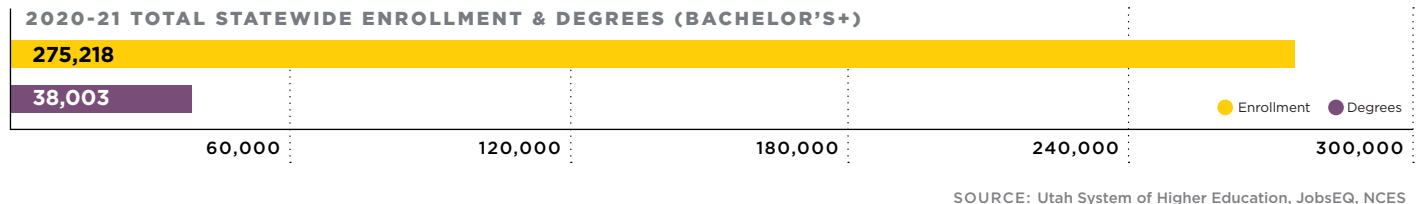
Kairos
Autonomi

Rocky Mountain
Unmanned Systems

Education & Labor

A State of Education

Utah is home to **12 major colleges and universities** and has an excellent talent pipeline of over **275,000** students. Bachelor's and graduate awards grew by **17% over the last five years**. Utah has an educated workforce, with over 93% of the population 25 or over with a high school diploma and over 36.8% with a bachelor's degree.



TOP THREE INSTITUTIONS WITH AEROSPACE-RELATED DEGREES

Utah State University

DEGREE: Aerospace Engineering Pathways



Utah State University offers an MS and PhD in Aerospace Engineering. USU is ranked as one of the highest funded universities for space research. This funding has given the USU aerospace engineering program national recognition.

Weber State University

DEGREE: Manufacturing Engineering: Plastics & Composites



The Manufacturing Engineering Technology: Plastics and Composites degree teaches students firsthand about the complex interdependence between the plastic/composite process, materials, tooling and part design. Composite materials are integral in the aerospace industry.

University of Utah

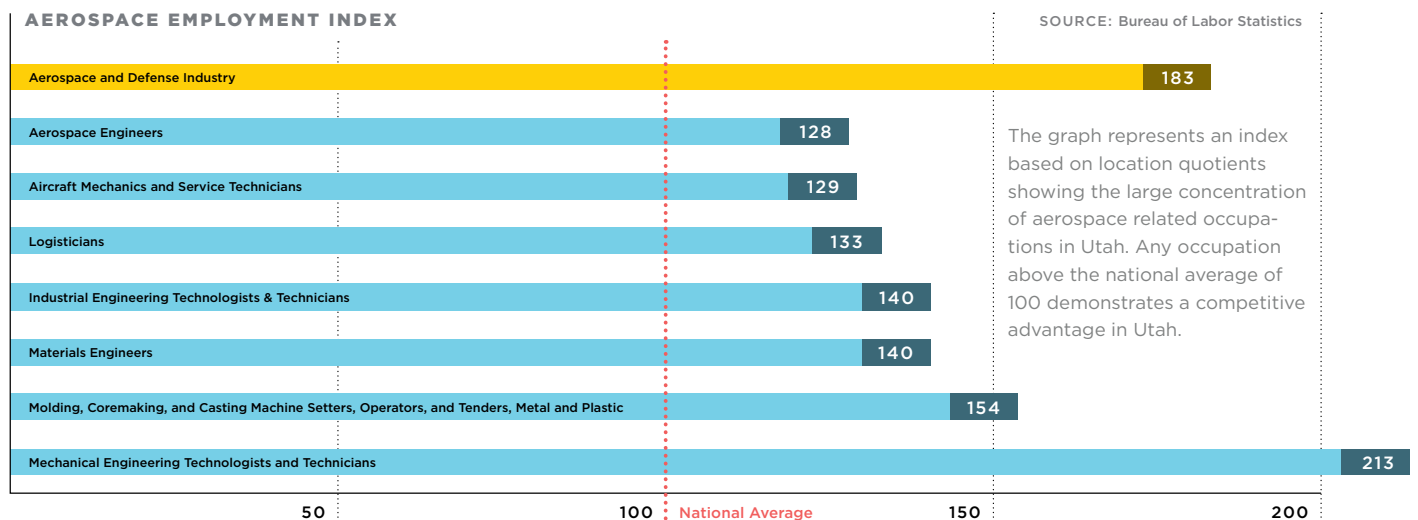
DEGREE: Mechanical Engineering BS, Aerospace Emphasis



The University of Utah provides an Aerospace Emphasis for their Mechanical Engineering BS program. This program provides excellent opportunity for mechanical engineering students to pursue careers in aerospace and aviation related fields.

The Labor Picture

Utah's labor force is well educated, growing, and affordable. Utah **created over 60,000 jobs in 2022** and maintained one of the highest job growth rates in the nation throughout the year. Utah is the youngest state in the nation with a median age of 31.8 and has an average wage of \$57,300, which is **7% lower than the nation**.



Utah System of Technical Colleges



Bridgerland Tech

Bridgerland Tech has four campuses: Brigham City, Woodruff, and two in Logan. It has over 1,700 students enrolled in 40 programs. Primary programs include Health Professions & Related Programs and Transportation & Materials Moving.



Ogden-Weber Tech

Ogden-Weber Tech has one main campus in Ogden, plus three specialized locations in Ogden and Salt Lake City. Over 2,900 students are enrolled in 30 programs, including Health Professions, Materials Engineering, and Precision Production Programs.



Davis Tech

Davis Tech has four campus locations: Kaysville, Clearfield, Morgan, and Draper. It has over 3,700 students enrolled in 36 programs, including Health Professions & Related Programs, Homeland Security, and Culinary Services.



Tooele Tech

Tooele Tech has one campus location in Tooele. It has over 490 students enrolled in 16 programs. The primary programs include Health Professions & Related Programs, Precision Welding Technology, and Business Support Services.



Mountainland Tech

Mountainland Tech has five campuses: Lehi, American Fork, Orem, Spanish Fork, and Heber. 3,700 students are enrolled in 49 programs, including Health Professions, Precision Welding Technology, and Mechanic & Repair Technologies.



Uintah Basin Tech

Uintah Basin Tech has two campus locations: Roosevelt and Vernal. Over 1,100 students are enrolled in 22 programs, including Engineering Technology, Health Professions & Related Programs, and Transportation and Materials Moving.



Southwest Tech

Southwest Tech has two campus locations: Cedar City and Kanab. It has over 640 students enrolled in 18 programs, including Primary programs include Health Professions & Related Programs and Transportation & Materials Moving.



Dixie Tech

Dixie Tech has one campus in St. George and over 900 students enrolled in 26 programs. Primary programs include Mechanic and Repair Technologies / Technicians, Health Professions & Related Programs, and Computer & Information Sciences.



EDCUtah questions?
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Have questions about the Aerospace industry in Utah?
Call us at 1-800-574-8824.

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