EDCUTAH INDUSTRY PROFILE | FY 20-21

LIFE SCIENCES
IN UTAH

edcUTAH ECONOMIC DEVELOPMENT CORPORATION OF UTAH

ON THE COVER

Edwards Lifesciences Sapien 3 Heart Valve

The Edwards Sapien 3 Transcatheter Heart Valve is changing the world of aortic stenosis therapy. In 2016 the Sapien 3 received FDA approval for expanded use in the treatment of intermediate-risk patients. The valve has the highest survival rate ever reported in a TAVI clinical trial.

Personalized Medicine, Medical Devices, World Class Research

Industry

- Utah is proud to be home to companies like **Merit Medical Systems, BD (Becton Dickinson), Edwards Lifesciences, Varex Imaging**, **BioFire**, and many others. Utah is one of the top states in the nation for life science employment with an employee base of over 42,000 people.
- Just two of Utah's efforts to align education and industry are **Medical Innovations Pathway**, which provides high school students with opportunities in life science career paths, and **Utah Science Technology and Research (USTAR)**, which bolsters Utah's research strengths through commercializing technologies.
- Utah has a robust medical device manufacturing industry. Utah offers a world-class effort in arterial and vascular access devices, **producing 70% of all devices used worldwide**.

Business Climate

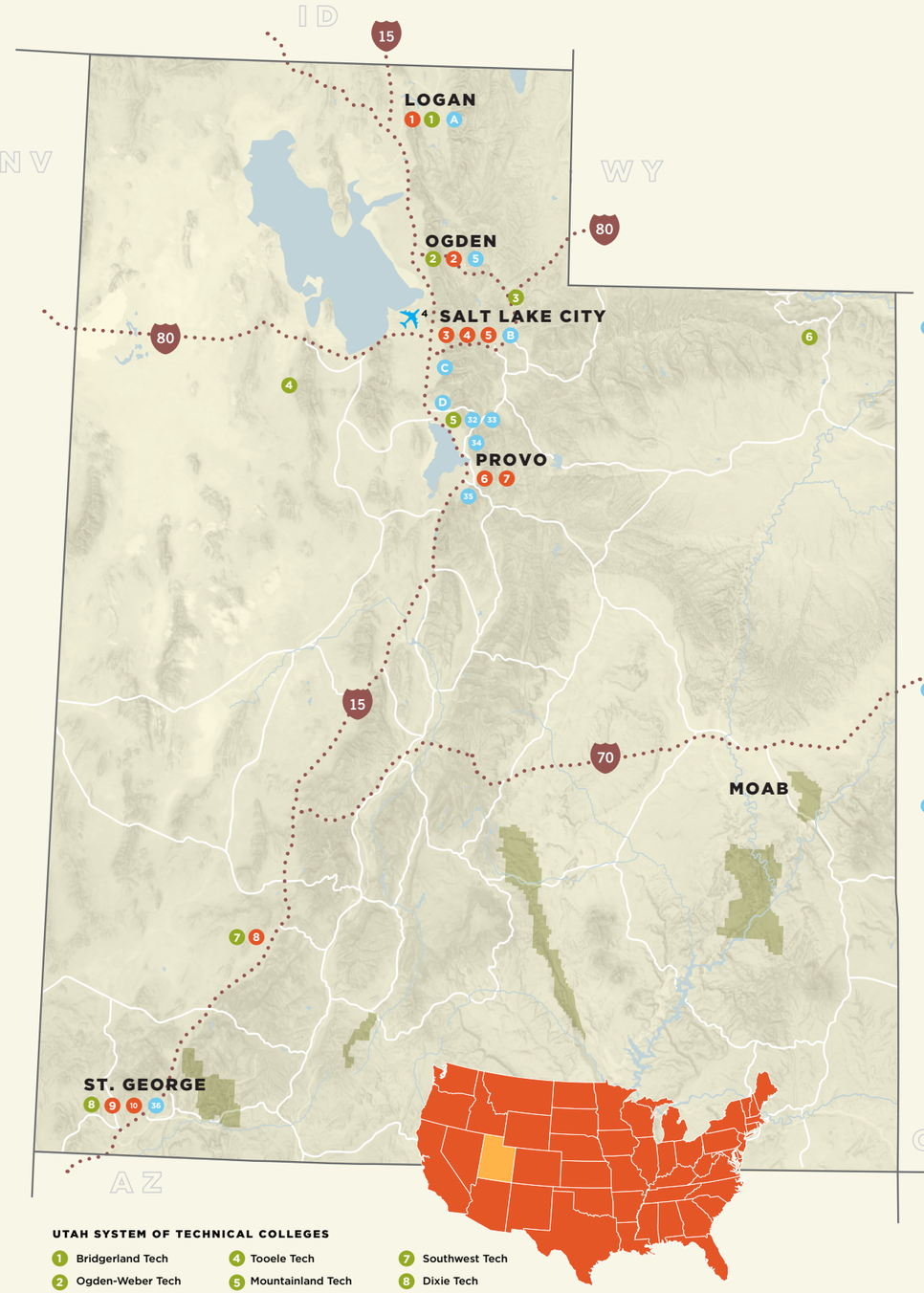
- Forbes Magazine recognized Utah as **"The Best State for Business"** six of the past eight years, ranking 3rd in 2019.
- In 2017, Utah's post-performance tax incentives facilitated nearly **11,000 new jobs and more than $70M in new state revenue.**
- In 2020, the Tax Foundation ranked Utah's Total Tax Climate as the **9th best in the nation**. Since 2011, Utah has eliminated or modified nearly 400 business regulations to ease the burdens placed on businesses.

Workforce

- Utah has high employee concentrations in **medical equipment and supplies manufacturing, pharmaceutical and medicine manufacturing, biomedical engineers**, and many other life science related industries and occupations.
- There are a wealth of life science education resources in Utah, with **11 institutions offering programs related to life science**. Additionally, Utah has a medical, dental, pharmacy, and nursing school at the University of Utah.
- Utah has an abundance of medical device manufacturing companies with more than **12,000 people employed in the industry**. Utah has industry recognized expertise in medical device manufacturing.

MAJOR UNIVERSITIES AND COLLEGES

1. Utah State University
2. Weber State University
3. University of Utah
4. Westminster College
5. Salt Lake Community College
6. Utah Valley University
7. Brigham Young University
8. Southern Utah University
9. Dixie State University
10. Rocky Vista University



MAJOR EMPLOYERS

1. Cytiva
2. Lincotek Medical
3. Paragon Medical
4. USU Research Foundation
5. Fresenius USA Manufacturing
6. ARUP Laboratories
7. BD (Becton Dickinson)
8. BioFire Diagnostics
9. Biomerics
10. GE Healthcare
11. ICU Medical
12. Myriad Genetic Laboratories
13. Nelson Laboratories
14. Otto Bock Healthcare
15. PolarityTE
16. Pra Health Sciences
17. Reckitt & Benckiser Health Manufacturing
18. Recursion Pharmaceuticals
19. Sorenson Genomics
20. Stryker
21. Teva Pharmaceuticals
22. Thermo Fisher Scientific
23. Varex Imaging
24. Laborie Medical Technologies
25. Merit Medical Systems
26. Moog Medical Devices Group
27. Ultradent
28. Edwards Lifesciences
29. Ethicon
30. Haemonetics
31. Ortho Development
32. Owlet Baby Care
33. Tolera Pharmaceuticals
34. Moxtek
35. ATL Technology
36. Deseret Laboratories

UTAH SYSTEM OF TECHNICAL COLLEGES

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

Major Life Sciences Employers

COMPANY	EMPLOYEES*	DESCRIPTION
ARUP Laboratories	3000-3999 map #6	ARUP Laboratories is a national clinical and anatomic pathology reference laboratory and is a nonprofit enterprise of the University of Utah.
ATL Technology	100-249 map #35	ATL Technology is a medical device engineering and manufacturing company that produces custom interconnect devices and single use medical devices.
BD (Becton Dickinson)	1000-1999 map #7	BD (Becton Dickinson) manufactures and sells a broad range of medical supplies, devices, laboratory equipment and diagnostic products.
BioFire Diagnostics	1000-1999 map #8	BioFire Diagnostics provides infectious disease diagnostics and molecular solutions that lessen the time to medical results.
Biomerics	100-249 map #9	Biomerics is a contract manufacturer that specializes in the design, development, and production of medical devices for diagnostic and interventional procedures.
Cytiva (A Danaher Company)	250-499 map #1	Cytiva, a Danaher company, is a global provider of technologies and services that advance and accelerate the development and manufacture of therapeutics.
Deseret Laboratories	100-249 map #36	Deseret Laboratories provides production facilities from which to deliver agglomeration, instatization, blending, tableting, hard shell encapsulation, coating, bottling, liquid filling, powder filling, packeting, vertical form, and fill pouching.
Edwards Lifesciences	1000-1999 map #28	Edwards Lifesciences is a global leader in the science of heart valves and hemodynamic monitoring.
Ethicon (A Johnson & Johnson Company)	50-99 map #29	Ethicon, a Johnson & Johnson company, has manufactured surgical sutures and wound closure devices since 1887, producing 70% of such devices worldwide.
Fresenius USA Manufacturing	1000-1999 map #5	Fresenius USA Manufacturing offers specialty pharmacy and laboratory services, as well as manufactures and distributes dialysis equipment, disposable products, and renal pharmaceuticals.
GE Healthcare	250-499 map #10	GE Healthcare provides expertise in medical imaging, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, and other services.
Haemonetics	100-249 map #30	Haemonetics portfolio of devices, information management, and consulting services offers blood management for each facet of the blood supply chain—from plasma and blood collectors to hospitals.
ICU Medical	250-499 map #11	ICU Medical offers needle-free vascular access devices, custom infusion sets, closed system hazardous drug handling devices and systems, and other products and services.
Laborie Medical Technologies	100-249 map #24	Laborie Medical Technologies is a global developer and manufacturer of medical technologies and consumables used in the Urology, Gynecology, and Colorectal fields.
Lincotek Medical	100-249 map #2	Lincotek Medical is a global contract manufacturer for various medical fields such as orthopedic, trauma, spine, and dental devices.
Merit Medical Systems	2000-2999 map #25	Merit Medical Systems is engaged in the development, manufacturing, and distribution of disposable medical devices used in interventional and diagnostic procedures.
Moog Medical Devices Group	100-249 map #26	Moog Medical Devices designs and develops advanced infusion systems that improve medication safety, optimize application performance, and reduce medical expenses.

*SOURCE: Utah Department of Workforce Services

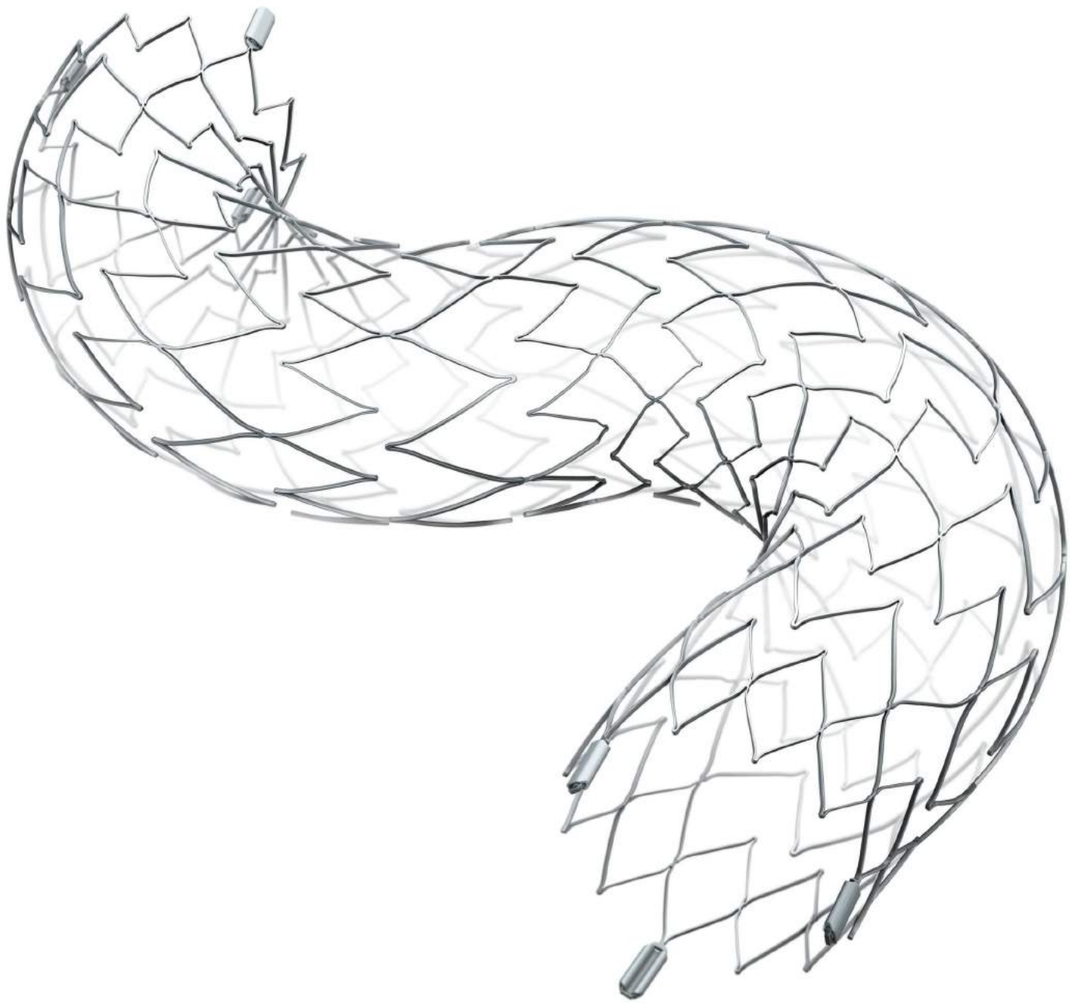
Edwards Lifesciences delivery system for Intuity Elite Rapid Deployment Valve

GE Healthcare PET / CT scanner

COMPANY	EMPLOYEES*	DESCRIPTION
Moxtek	100-249 map #34	Moxtek is a supplier of advanced nano-optical and X-ray components for display electronics, imaging and analytical instrumentation.
Myriad Genetic Laboratories	500-999 map #12	Myriad Genetic Laboratories develops and markets molecular diagnostic tests that address pressing clinical needs across multiple medical specialties.
Nelson Laboratories	500-999 map #13	Nelson Laboratories provides full, life-cycle microbiology testing services for the medical devices, pharmaceutical, tissue, and natural products industries.
Ortho Development	100-249 map #31	Ortho Development designs and manufactures implants and surgical instruments for knee and hip replacement, trauma fracture repair, and spine treatment.
Otto Bock Healthcare	100-249 map #14	Otto Bock Healthcare manufactures prostheses, braces and orthoses, children's wheelchairs, cushions, and accessories.
Owlet Baby Care	100-249 map #32	Owlet Baby Care is a health technology company. Their flagship product is the Smart Sock Baby Monitor which uses pulse oximetry technology to track heart rate and oxygen levels during sleep.
Paragon Medical	100-249 map #3	Paragon Medical is a supplier for cases and trays, surgical instruments, implantable components, and design and development services to the medical device marketplace.
PolarityTE	100-249 map #15	PolarityTE is a commercial-stage biotechnology company that develops regenerative tissue products and biomaterials.
Pra Health Sciences	100-249 map #16	Pra Health Sciences specializes is clinical research, therapeutic expertise, biosimilars, bioanalytical lboratories, rare disease, and oncology.
Reckitt & Benckiser Health Manufacturing	250-499 map #17	Reckitt & Benckiser Health Manufacturing is a producer and manufacturer in the pharmaceutical manufacturing industry.
Recursion Pharmaceuticals	100-249 map #18	Recursion Pharmaceuticals combines artificial intelligence and automation to conduct experimental biology at scale.
Sorenson Genomics	20-49 map #19	Sorenson Genomics is an independent, nationally and internationally accredited Human Genomics DNA Testing Laboratory.
Stryker	250-499 map #20	Stryker offers a diverse array of products and services in orthopaedics, medical, surgical, neurotechnology, and spine that help improve patient and hospital outcomes.
Teva Pharmaceuticals Industries	500-999 map #21	Teva Pharmaceuticals develops, produces, and markets affordable generic drugs as well as innovative and specialty pharmaceuticals and active pharmaceutical ingredients.
Thermo Fisher Scientific	500-999 map #22	Thermo Fisher Scientific provides innovative analytical instruments, lab equipment, and specialty diagnostics that provide rapid and accurate results.
Tolero Pharmaceuticals	20-49 map #33	Tolero Pharmaceuticals is a clinical stage biopharmaceutical company developing treatments for patients with oncological and hematological diseases.
Ultradent Products	1000-1999 map #27	Ultradent Products develops, manufactures, and markets a full range of dental products to meet the needs of the dental industry.
USU Research Foundation	500-999 map #4	USU Research Foundation is a nonprofit organization who's mission is to bridge the gap between conceptual research and its development and deployment.
Varex Imaging	1000-1999 map #23	Varex Imaging is the world's largest independent supplier of medical x-ray tubes and image processing products.

*SOURCE: Utah Department of Workforce Services

Ortho Development's BKS TriMax knee replacement.



Stryker's Neuroform EZ Stent System is engineered for consistent conformability, flexibility, and accessibility.

Recent Announcements

GE Healthcare Life Sciences Expands in Utah (2019)
GE Healthcare Life Sciences will expand its operations in Utah. GE Healthcare Life Sciences plans to create as many as 68 new jobs in the next five years. GE Healthcare manufactures and distributes diagnostic imaging agents and radiopharmaceuticals for imaging technologies used in medical imaging procedures. The company develops health technology for medical imaging, diagnostics, patient monitoring systems, disease research and biopharmaceutical manufacturing.

Utah Startup PolarityTE Expands within the State (2018)
PolarityTE is a biotech startup in Salt Lake City that invented an innovtive stem cell mixture that helps the healing and regeneration of skin for burn victims. Their product, called SkinTE, is being tested by use on patients at more than a dozen hospitals around the country. Their expansion could bring up to 1,000 new jobs and over $50 million in capital investment.

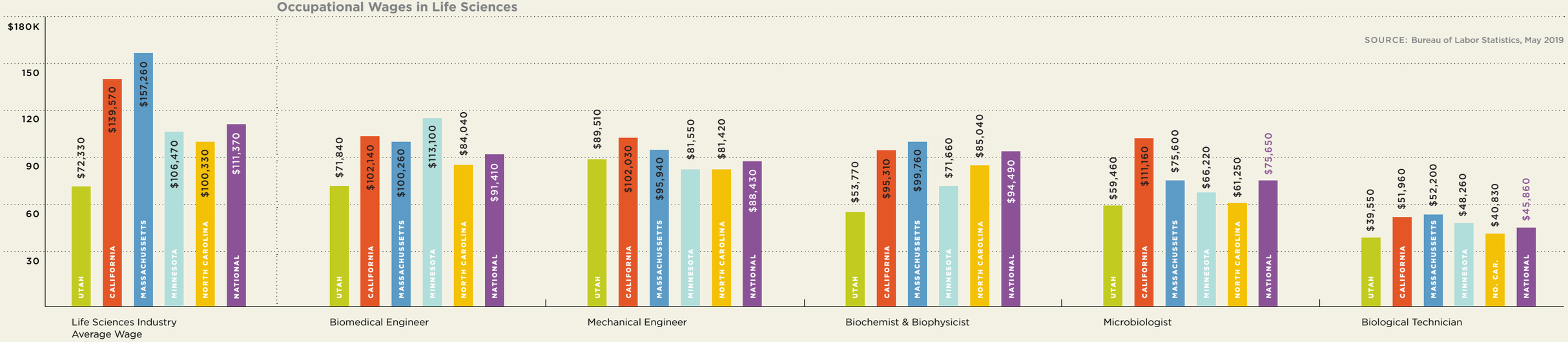
Merit Medical Expands in Utah (2018)
Merit Medical Systems, Inc. will expand in Utah, adding up to 1,010 jobs, $71 million in state revenue and an estimated $505 million in capital investment. Merit Medical is a leading manufacturer and marketer of disposable medical devices used in intervention, diagnostic and therapeutic medical procedures. The company offers products in cardiac, intervention, peripheral intervention, interventional oncology and spine, cardiovascular, and critical care and endoscopy. The company has manufacturing and research and development facilities in seven countries around the world with their worldwide headquarters located in South Jordan.

Stryker Announces Plans for Future Growth in Utah (2017)
Stryker announced plans to expand in the state of Utah, adding up to 540 jobs, $16.9 million in new state revenue, and an estimated $100 million in capital investment. The company's current location in Salt Lake City manufactures neurovascular products, and the expansion will increase the product portfolio to include orthopedic, spinal, and endoscopy product manufacturing. The expansion will also increase research and development operations, employing many engineers, and will host a medical device physician training and certification program.

Biomerics Announces New Corporate Headquarters in Salt Lake City (2017)
Biomerics, a leading medical device manufacturer for the cardiovascular market, announced it will relocate to a new corporate headquarters in Salt Lake City, The 230,000 square foot facility will be located in the International Center west of the Salt Lake City International Airport. Biomerics expects to invest $38.5 Million in the expansion over the next eight years and to add over 380 new jobs.

Cost Profile

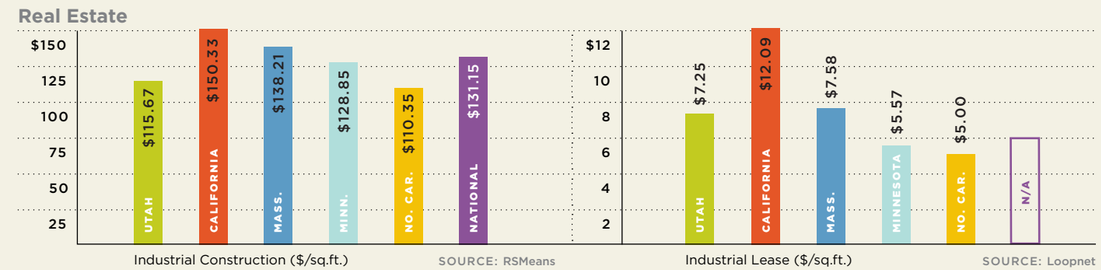
Occupational Wages in Life Sciences



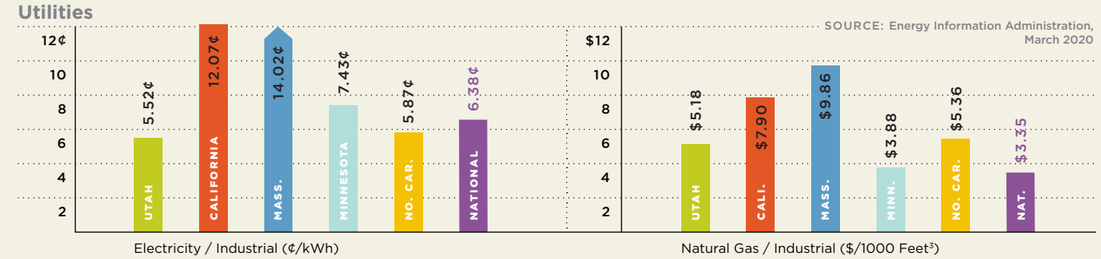
Other Comparative Wages in Life Sciences

OCCUPATION	UTAH	CALIFORNIA	MASSACHUSSETTS	MINNESOTA	NORTH CAROLINA	NATIONAL
Industrial Production Manager	$89,790	$112,340	$120,960	$102,480	$103,770	$105,480
Chemical Engineer	$85,480	$101,620	$102,680	$109,930	$102,920	$108,770
Chemist	$63,910	$79,210	$89,280	$85,010	$73,510	$77,630
Chemical Technicians	$45,160	$47,170	$52,900	$48,340	$51,510	$49,260
Clinical Lab Technologists & Technicians	$47,700	$58,120	$57,600	$54,620	$50,120	$53,120
Chemical Equipment Operators & Tenders	$36,870	$49,590	$46,600	$45,060	$46,900	$49,130
Medical Appliance Technicians	$30,040	$50,580	$47,480	$50,450	$39,160	$40,690

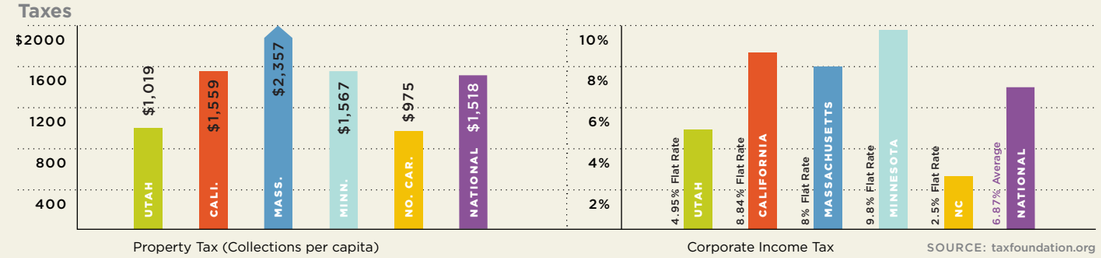
Real Estate



Utilities



Taxes



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 life sciences industry.

1 **BioUtah** is a trade association serving the life science industry to enable success and advance innovation for life science companies in Utah.

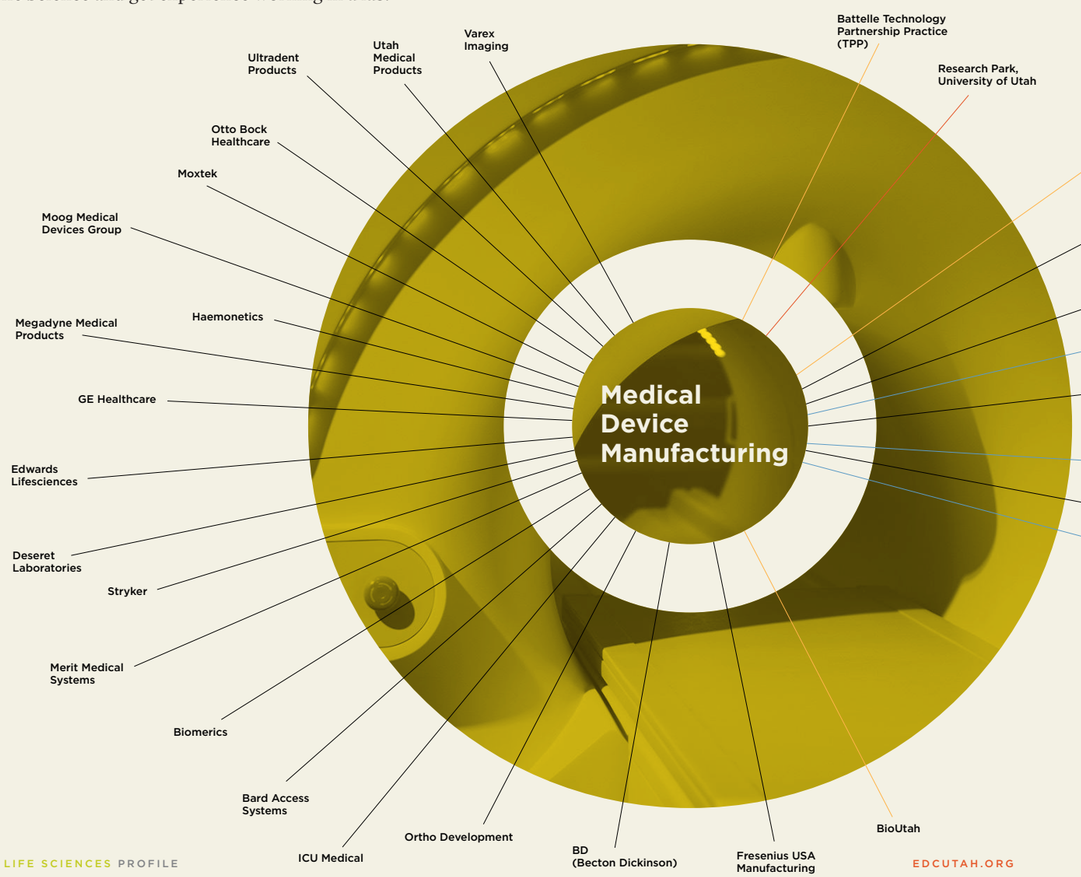
2 **The Utah Cluster Acceleration Partnership (UCAP)** program provides funding to public educational institutions to develop, implement or enhance educational programs that are responsive to regional and statewide industry needs.

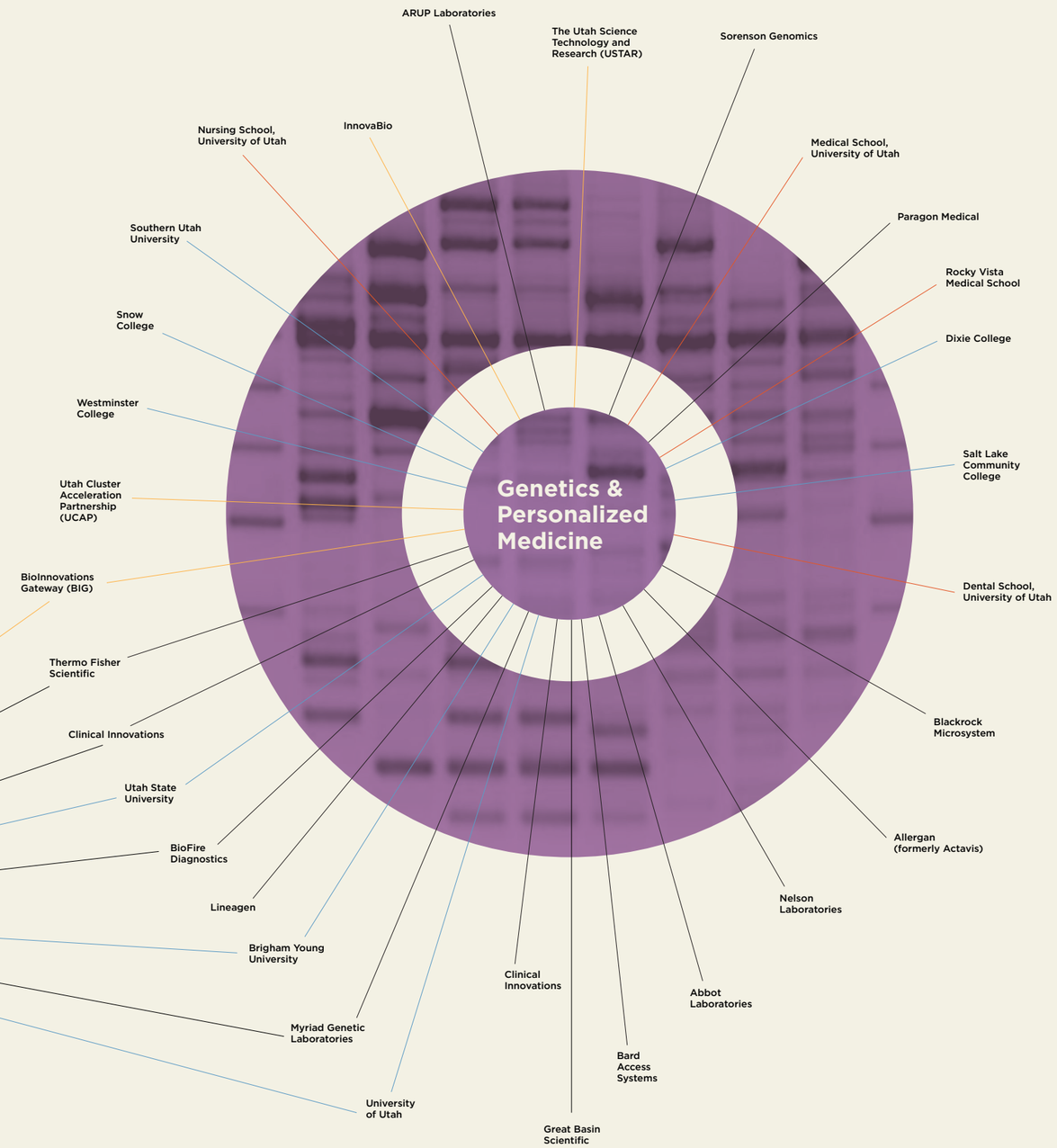
3 **Battelle Technology Partnership Practice (TPP)** has been involved in analyzing Utah's life science industry and research and development base to identify gaps in the state's life science infrastructure and facilitate the development of strategies and actions.

4 **BioInnovations Gateway (BiG)** is an educational institution and workforce training facility that provides access to laboratories, machines, office space, and resources for high school students and entrepreneurs.

5 **The Utah Science Technology and Research (USTAR's)** objective is to bolster Utah's research strengths and significantly increase technology commercialization to create many more high caliber jobs throughout the state.

6 **InnovaBio** provides a training environment for high school and college interns to learn about careers in Life Science and get experience working in a lab.





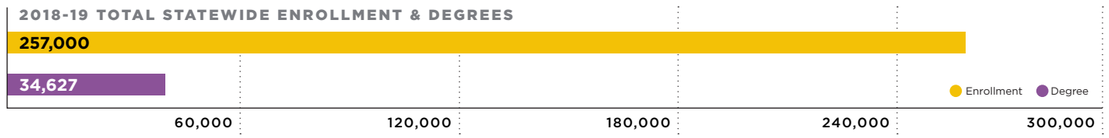
LINE KEY

Companies | Accelerators | Infrastructure | Educational Institutions

Education & Labor

A State of Education

Utah is home to **12 major colleges and universities** and has an excellent talent pipeline of over **250,000** students. Bachelor's and graduate awards grew by **50.2% over the last five years**. Utah has an educated workforce, with over 92% of the population 25 or over with a high school diploma and over 33% with a bachelor's degree.



SOURCE: Utah System of Higher Education

TOP THREE INSTITUTIONS WITH LIFE SCIENCE-RELATED DEGREES

State of Utah
DEGREE: Medical Innovations Pathway

The Medical Innovations Pathway program provides high school students with the skills required to create career opportunities within Utah's life sciences industry. Students receive certifications in programs related to medical devices and equipment as well as research, testing, and medical labs.

Brigham Young University
DEGREE: Genetics, Genomics, and Biotechnology

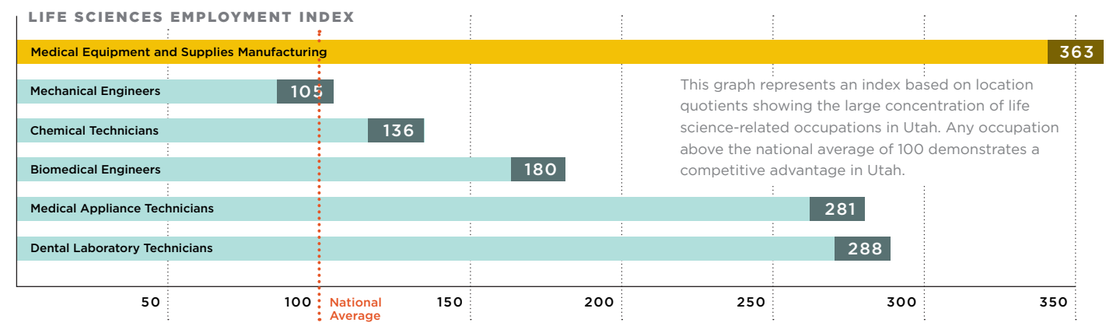
Students who major in Genetics, Genomics, and Biotechnology follow one of four tracks. Each track includes a comprehensive core of genetics, biology, and chemistry courses. The tracks include Biomedical Genetics, Bio-Business, Plant Genetics & Biotechnology, and Microbial Genetics &Biotechnology.

University of Utah
DEGREE: Medical Laboratory Science

The Medical Laboratory Sciences division includes two baccalaurete and one master of science degree programs, including a BS in Medical Laboratory Sciences, BS in Cytotechnology, and Master of Science in Laboratory Medicine and Biomedical Science.

The Labor Picture

Utah's labor force is well educated, growing, and affordable. Utah **created nearly 45,000 jobs in 2019**, and maintained one of the highest job growth rate in the nation throughout the year. Utah is the youngest state in the nation with a median age of 31, and has an average wage of $49,238, which is **14% lower than the national average.**



SOURCE: Bureau of Labor Statistics

University of Utah Health Care is the Intermountain West's only academic health care system, combining excellence in patient care, the latest in medical research and teaching to provide leading-edge medicine in a caring and personal setting. The system provides care for Utahns and residents of five surrounding states in a referral area encompassing more than 10% of the continental United States.

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

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