



TEconomy/BIO

The Value of Bioscience Innovation in Growing Jobs and Improving Quality of Life 2016

Utah

Utah is home to a highly specialized, diverse, and rapidly growing bioscience industry. State bioscience companies employed nearly 28,000 in 2014 while operating 1,002 business establishments. Utah has grown its bioscience industry employment base by 10.3 percent since 2012. Four of five major industry subsectors have contributed to Utah’s bioscience growth over this 2-year period (the exception is agricultural feedstock and chemicals which has a small state presence). Utah has a specialized employment concentration in three subsectors—medical devices; drugs and pharmaceuticals; and research, testing, and medical labs. Its bioscience-related distribution subsector is nearly specialized in its concentration within the state. Venture capital funding to Utah’s bioscience firms has increased sharply in recent years and over the 2012 through 2015 period totaled \$331 million. The focus areas of this funding have been in health information technology, medical diagnostics, and health services.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Utah	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	27,678	1,655,680	II
Bioscience Industry Location Quotient	1.80	n/a	I
Bioscience Industry Establishments	1,002	77,283	III
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$393,691	\$38,873,926	III
Bioscience Share of Total R&D	59%	61%	III
Bioscience R&D Per Capita	\$134	\$122	II
NIH Funding, FY 2015			
Funding (\$ thousands)	\$159,471	\$22,869,746	III
Funding Per Capita	\$53	\$71	III
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$331.2	\$48,742.10	II
Bioscience and Related Patents, 2012–15	1,561	101,026	III

State ranking figures for bioscience performance metrics are calculated as quintiles, where:

top quintile – I II III IV V – bottom quintile

For source notes, see end of State Profile.



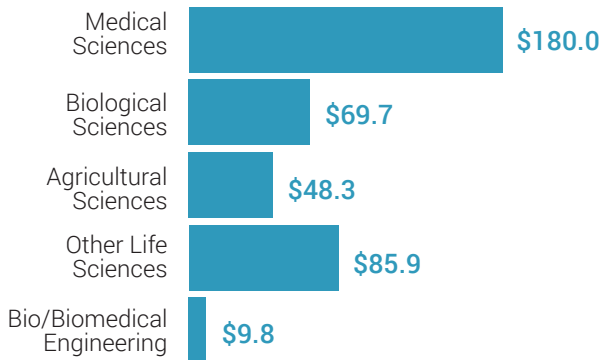
Industry Subsector	Utah		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	13	-7.0%	1,811	2.2%
Employment	186	-9.2%	77,545	1.5%
Location Quotient	0.26		n/a	
Direct-Effect Employment Multiplier	17.6		18.4	
Total Employment Impact	3,270		1,432,125	
Average Annual Wage	\$60,206	32.4%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	545	1.0%	37,833	2.8%
Employment	4,829	6.8%	452,325	2.3%
Location Quotient	1.15		n/a	
Direct-Effect Employment Multiplier	3.1		3.0	
Total Employment Impact	14,859		1,358,820	
Average Annual Wage	\$78,557	7.8%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	82	0.0%	3,301	8.0%
Employment	5,632	14.6%	293,353	3.2%
Location Quotient	2.07		n/a	
Direct-Effect Employment Multiplier	12.4		11.0	
Total Employment Impact	69,593		3,242,627	
Average Annual Wage	\$58,447	-0.5%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	135	16.4%	7,636	5.5%
Employment	10,690	13.2%	349,045	-0.1%
Location Quotient	3.30		n/a	
Direct-Effect Employment Multiplier	4.7		4.6	
Total Employment Impact	50,328		1,596,802	
Average Annual Wage	\$58,130	1.0%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	227	4.4%	26,702	10.2%
Employment	6,342	5.4%	483,412	3.4%
Location Quotient	1.41		n/a	
Direct-Effect Employment Multiplier	3.1		3.1	
Total Employment Impact	19,950		1,554,719	
Average Annual Wage	\$69,326	12.7%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	1,002	3.4%	77,283	5.7%
Employment	27,678	10.3%	1,655,680	2.2%
Location Quotient	1.80		n/a	
Direct-Effect Employment Multiplier	5.8		5.5	
Total Employment Impact	160,782		9,185,094	
Average Annual Wage	\$64,337	4.8%	\$94,543	7.2%
Total Private Sector				
Establishments	86,724	6.1%	8,937,672	2.7%
Employment	1,075,917	6.9%	116,018,300	4.4%
Average Annual Wage	\$42,994	4.5%	\$51,148	4.3%

Note: U.S. employment metrics include Puerto Rico.

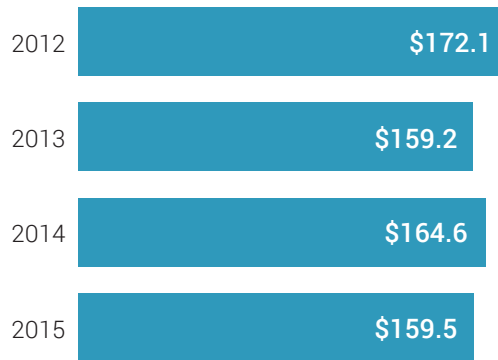


Bioscience Research in Utah

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014

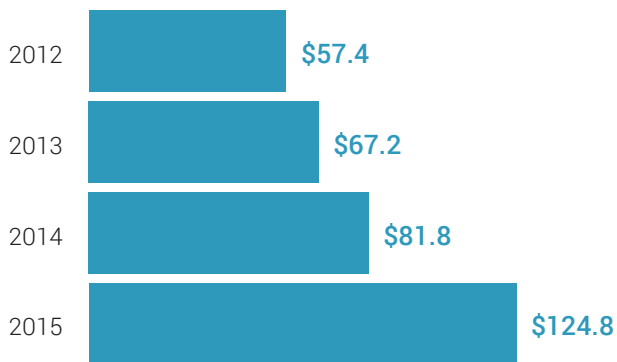


NIH Awards
\$ Millions
FY 2012-2015

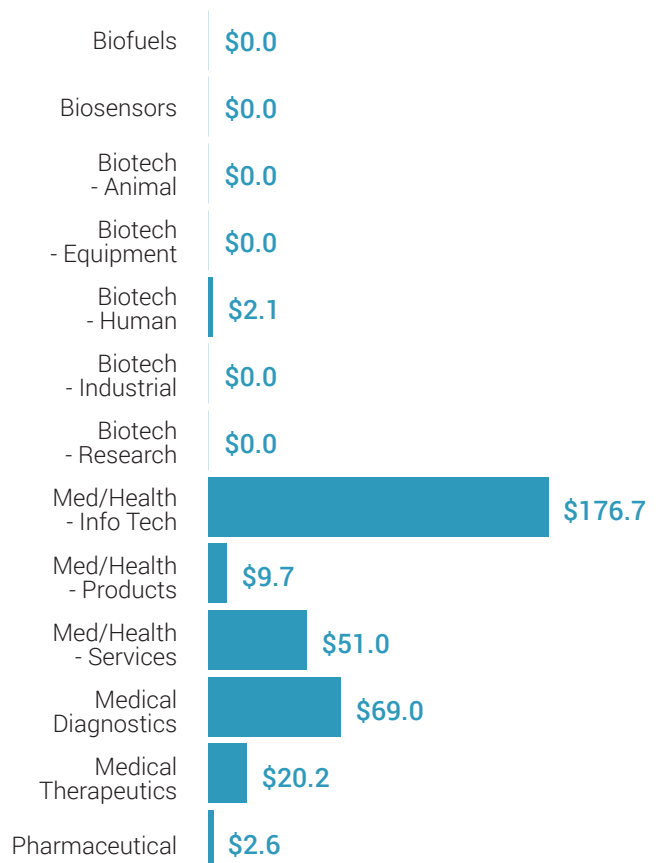


Bioscience Venture Capital in Utah

Bioscience-Related Venture Capital Investments
\$ Millions
2012-2015



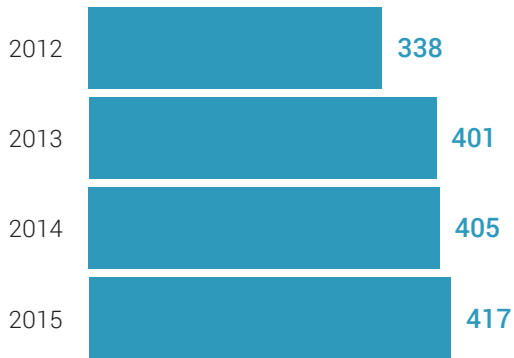
Bioscience-Related Venture Capital Investments by Segment
\$ Millions
2012-2015



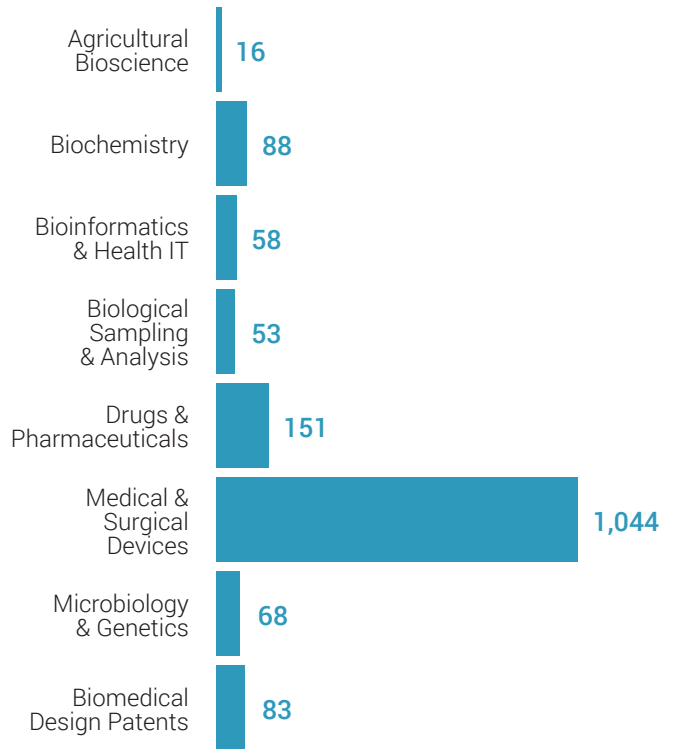


Bioscience Patents in Utah

Bioscience-Related U.S. Patents
2012-2015



Bioscience-Related U.S. Patents by Segment
2012-2015



Source Notes

Employment, Establishments, and Wages: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced file from the IMPLAN Group, LLC.

Employment Multipliers: IMPLAN Group, LLC state-level Input/Output models.

Academic R&D Expenditures: National Science Foundation (NSF) Higher Education Research and Development (HERD) Survey.

NIH Funding: National Institutes of Health, NIH Awards by Location & Organization (summary information within RePORT database).

Venture Capital: Thomson Reuters Thomson ONE venture capital database.

Patents: U.S. Patent & Trademark Office data from Thomson Reuters Thomson Innovation patent analysis database.

For a more detailed discussion of the data and methodology used, please see the Appendix to the full national report.

