



TEconomy/BIO

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

Alaska

Alaska's bioscience industry employed more than 800 across 114 individual business establishments in 2014. Most of these state jobs are in the research, testing, and medical labs and bioscience-related distribution subsectors of the industry. While the distribution subsector is modest in size in Alaska, it has grown by nearly 4 percent since 2012. NIH funding to Alaskan institutions has been increasing in recent years and reached \$13.5 million in FY 2015. Nearly all of the state's 64 bioscience-related patents since 2012 have been in medical and surgical devices.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Alaska	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	825	1,655,680	V
Bioscience Industry Location Quotient	0.23	n/a	V
Bioscience Industry Establishments	114	77,283	V
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$26,543	\$38,873,926	V
Bioscience Share of Total R&D	16%	61%	V
Bioscience R&D Per Capita	\$36	\$122	V
NIH Funding, FY 2015			
Funding (\$ thousands)	\$13,531	\$22,869,746	V
Funding Per Capita	\$18	\$71	V
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$0.0	\$48,742.1	V
Bioscience and Related Patents, 2012–15	64	101,026	V

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.



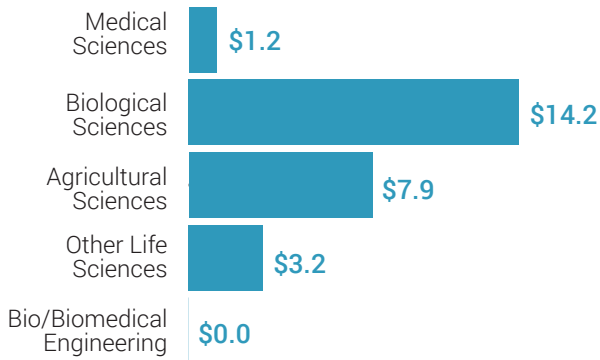
Industry Subsector	Alaska		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	2	-33.3%	1,811	2.2%
Employment	26	-22.9%	77,545	1.5%
Location Quotient	0.15		n/a	
Direct-Effect Employment Multiplier	14.9		18.4	
Total Employment Impact	384		1,432,125	
Average Annual Wage	\$52,867	-30.9%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	53	-2.7%	37,833	2.8%
Employment	352	3.6%	452,325	2.3%
Location Quotient	0.36		n/a	
Direct-Effect Employment Multiplier	2.5		3.0	
Total Employment Impact	889		1,358,820	
Average Annual Wage	\$65,242	8.7%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	0	0.0%	3,301	8.0%
Employment	0	0.0%	293,353	3.2%
Location Quotient	0.00		n/a	
Direct-Effect Employment Multiplier	0.0		11.0	
Total Employment Impact	0		3,242,627	
Average Annual Wage	\$0	0.0%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	11	0.0%	7,636	5.5%
Employment	82	-0.7%	349,045	-0.1%
Location Quotient	0.11		n/a	
Direct-Effect Employment Multiplier	3.9		4.6	
Total Employment Impact	320		1,596,802	
Average Annual Wage	\$67,213	3.3%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	48	-8.8%	26,702	10.2%
Employment	365	-5.7%	483,412	3.4%
Location Quotient	0.35		n/a	
Direct-Effect Employment Multiplier	2.8		3.1	
Total Employment Impact	1,006		1,554,719	
Average Annual Wage	\$54,513	5.2%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	114	-5.9%	77,283	5.7%
Employment	825	-2.1%	1,655,680	2.2%
Location Quotient	0.23		n/a	
Direct-Effect Employment Multiplier	4.1		5.5	
Total Employment Impact	3,376		9,185,094	
Average Annual Wage	\$60,304	5.1%	\$94,543	7.2%
Total Private Sector				
Establishments	19,428	0.2%	8,937,672	2.7%
Employment	252,818	2.0%	116,018,300	4.4%
Average Annual Wage	\$52,655	6.1%	\$51,148	4.3%

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

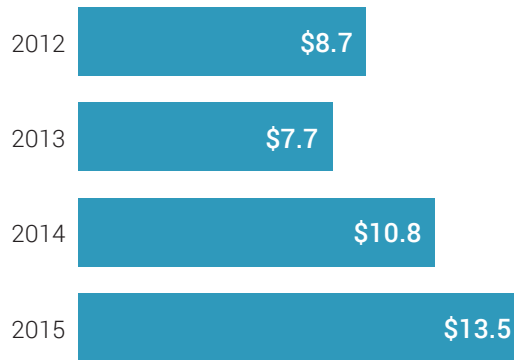


Bioscience Research in Alaska

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014



NIH Awards
\$ Millions
FY 2012-2015

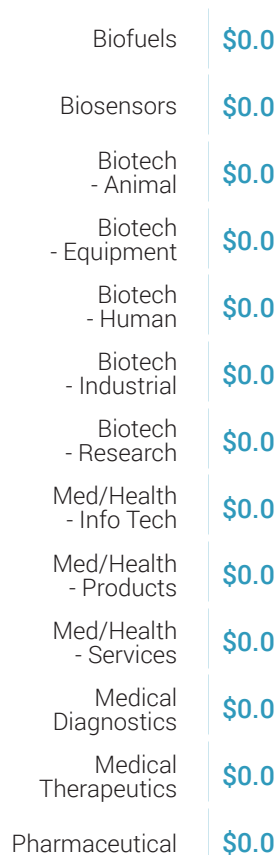


Bioscience Venture Capital in Alaska

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



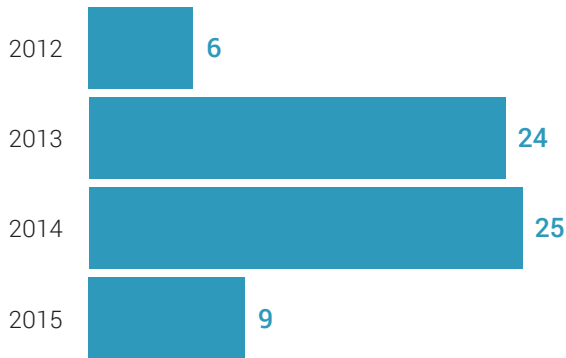
Bioscience-Related Venture
Capital Investments by Segment
\$ Millions
2012-2015



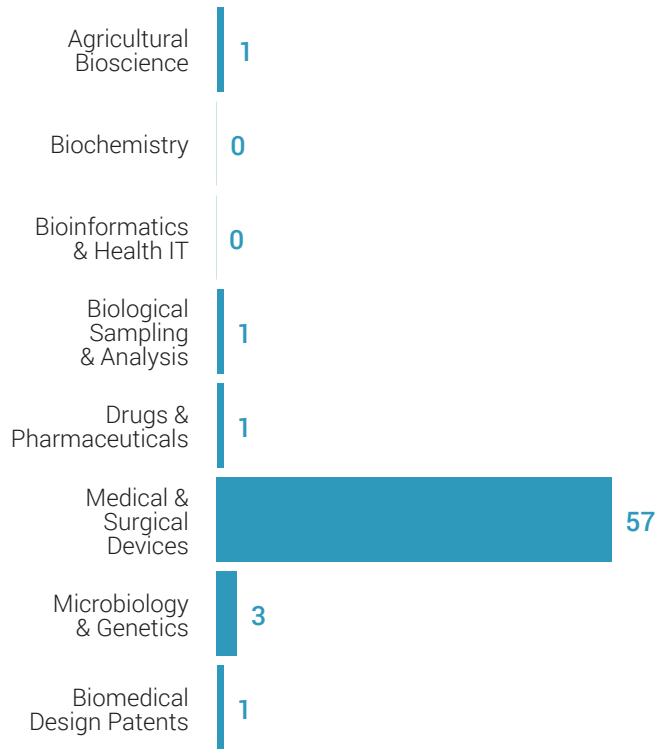


Bioscience Patents in Alaska

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.

