



TEconomy/BIO

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

Montana

Montana's bioscience industry is growing and in 2014 employment totaled nearly 2,800 jobs across 405 business establishments throughout the state. The state's largest component subsector is bioscience-related distribution which accounts for half of industry employment. The bioscience industry in Montana has grown by 7.6 percent since 2012, with job gains contributed by four of the five major industry subsectors. State inventors have been issued 154 patents in bioscience-related technology areas including medical and surgical devices, biochemistry, biomedical design patents, and drugs and pharmaceuticals.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Montana	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	2,753	1,655,680	V
Bioscience Industry Location Quotient	0.54	n/a	V
Bioscience Industry Establishments	405	77,283	V
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$83,182	\$38,873,926	V
Bioscience Share of Total R&D	48%	61%	IV
Bioscience R&D Per Capita	\$81	\$122	IV
NIH Funding, FY 2015			
Funding (\$ thousands)	\$28,545	\$22,869,746	V
Funding Per Capita	\$28	\$71	IV
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$2.0	\$48,742.10	V
Bioscience and Related Patents, 2012–15	154	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	Montana		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	14	0.0%	1,811	2.2%
Employment	126	9.3%	77,545	1.5%
Location Quotient	0.53		n/a	
Direct-Effect Employment Multiplier	16.1		18.4	
Total Employment Impact	2,032		1,432,125	
Average Annual Wage	\$44,940	-4.4%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	253	13.1%	37,833	2.8%
Employment	1,324	5.6%	452,325	2.3%
Location Quotient	0.95		n/a	
Direct-Effect Employment Multiplier	2.8		3.0	
Total Employment Impact	3,739		1,358,820	
Average Annual Wage	\$62,477	3.0%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	16	33.3%	3,301	8.0%
Employment	377	9.6%	293,353	3.2%
Location Quotient	0.42		n/a	
Direct-Effect Employment Multiplier	8.0		11.0	
Total Employment Impact	3,006		3,242,627	
Average Annual Wage	\$40,725	11.1%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	30	0.0%	7,636	5.5%
Employment	380	47.0%	349,045	-0.1%
Location Quotient	0.35		n/a	
Direct-Effect Employment Multiplier	4.1		4.6	
Total Employment Impact	1,547		1,596,802	
Average Annual Wage	\$39,891	1.6%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	92	4.7%	26,702	10.2%
Employment	545	-7.1%	483,412	3.4%
Location Quotient	0.37		n/a	
Direct-Effect Employment Multiplier	3.2		3.1	
Total Employment Impact	1,720		1,554,719	
Average Annual Wage	\$67,877	12.6%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	405	10.2%	77,283	5.7%
Employment	2,753	7.6%	1,655,680	2.2%
Location Quotient	0.54		n/a	
Direct-Effect Employment Multiplier	4.6		5.5	
Total Employment Impact	12,714		9,185,094	
Average Annual Wage	\$56,644	3.8%	\$94,543	7.2%
Total Private Sector				
Establishments	41,806	4.0%	8,937,672	2.7%
Employment	357,775	2.9%	116,018,300	4.4%
Average Annual Wage	\$37,854	5.2%	\$51,148	4.3%

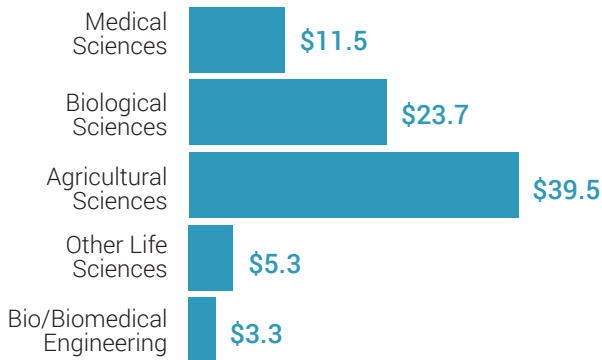
Note: U.S. employment metrics include Puerto Rico.



Montana

Bioscience Research in Montana

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014



NIH Awards
\$ Millions
FY 2012-2015



Bioscience Venture Capital in Montana

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



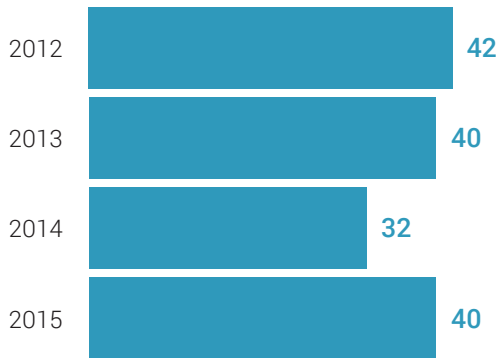
Bioscience-Related Venture
Capital Investments by Segment
\$ Millions
2012-2015



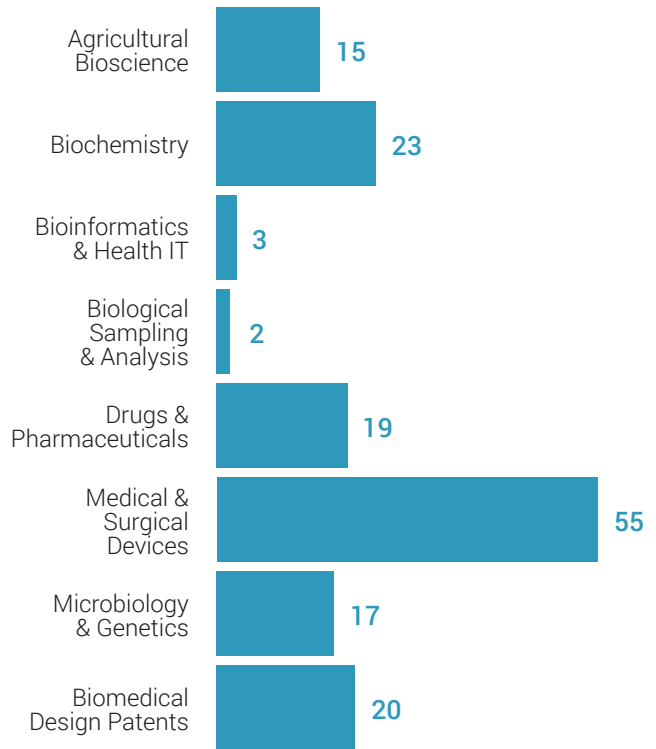


Bioscience Patents in Montana

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.

