



Montana

The Bioscience Economy: Propelling Life-Saving Treatments, Supporting State & Local Communities

Montana’s bioscience industry is modest in size but has grown in recent years. State bioscience firms have increased their employment base by 15 percent since 2016—twice the pace of national job growth—to reach 3,204 industry jobs in 2018 in 499 state establishments. Montana’s largest industry subsector is bioscience-related distribution with more than 1,300 jobs. The state’s research universities conducted \$124 million in bioscience-related R&D activities in 2018. NIH funding awards to Montana institutions have been increasing in recent years and reached nearly \$51 million in 2019.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Montana	United States	Quintile
Bioscience Industry, 2018			
Bioscience Industry Employment	3,204	1,869,955	V
Bioscience Industry Location Quotient	0.56	n/a	IV
Bioscience Industry Establishments	499	101,143	V
Academic Bioscience R&D Expenditures, FY 2018			
Academic Bioscience R&D (\$ thousands)	\$124,468	\$47,183,197	V
Bioscience Share of Total Academic R&D	58%	63%	III
Academic Bioscience R&D Per Capita	\$117	\$144	III
NIH Funding, FY 2019			
Funding (\$ thousands)	\$50,583	\$30,886,675	V
Funding Per Capita	\$47	\$94	III
Bioscience Venture Capital Investments, 2016-19 (\$ millions)	\$80.26	\$102,728.33	IV
Bioscience-Related Patents, 2016-19	145	108,438	V

State ranking figures for bioscience performance metrics are calculated as quintiles, where I = top quintile, III = middle quintile, and V = bottom quintile. For source notes, see end of State Profile.



Montana

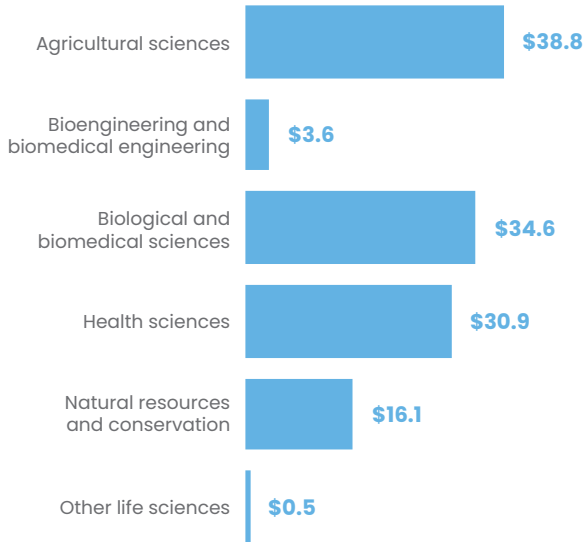
Industry Subsector	Montana		United States	
	2018	2016–2018 Change	2018	2016–2018 Change
Agricultural Feedstock and Industrial Biosciences				
Establishments	17	6.3%	1,785	4.4%
Employment	130	-10.9%	68,642	0.9%
Location Quotient	0.62		n/a	
Direct-Effect Employment Multiplier	4.67			
Total Employment Impact	605			
Average Annual Wage	\$61,489	17.4%	\$83,151	2.7%
Bioscience-Related Distribution				
Establishments	319	49.6%	51,582	31.8%
Employment	1,343	15.4%	545,055	16.1%
Location Quotient	0.81		n/a	
Direct-Effect Employment Multiplier	3.00			
Total Employment Impact	4,035			
Average Annual Wage	\$82,738	19.5%	\$105,905	13.1%
Drugs and Pharmaceuticals				
Establishments	20	66.7%	4,451	18.6%
Employment	659	61.5%	308,357	3.1%
Location Quotient	0.70		n/a	
Direct-Effect Employment Multiplier	2.42			
Total Employment Impact	1,594			
Average Annual Wage	\$44,450	-6.0%	\$113,544	-0.2%
Medical Devices and Equipment				
Establishments	38	22.6%	8,753	8.3%
Employment	514	19.7%	378,431	5.3%
Location Quotient	0.45		n/a	
Direct-Effect Employment Multiplier	2.14			
Total Employment Impact	1,103			
Average Annual Wage	\$45,067	9.1%	\$90,541	6.8%
Research, Testing, and Medical Laboratories				
Establishments	105	-1.3%	34,572	4.7%
Employment	558	-12.1%	569,470	4.0%
Location Quotient	0.32		n/a	
Direct-Effect Employment Multiplier	2.41			
Total Employment Impact	1,343			
Average Annual Wage	\$67,843	-8.6%	\$120,320	12.5%
Total Bioscience Industry				
Establishments	499	31.9%	101,143	18.0%
Employment	3,204	15.2%	1,869,955	7.2%
Location Quotient	0.56		n/a	
Direct-Effect Employment Multiplier	2.71			
Total Employment Impact	8,680			
Average Annual Wage	\$65,364	5.5%	\$107,610	8.7%
Total Private Sector				
Establishments	47,894	9.3%	9,776,674	3.1%
Employment	381,763	2.9%	125,195,944	3.3%
Average Annual Wage	\$42,315	7.0%	\$57,043	6.9%

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

Bioscience Research in Montana

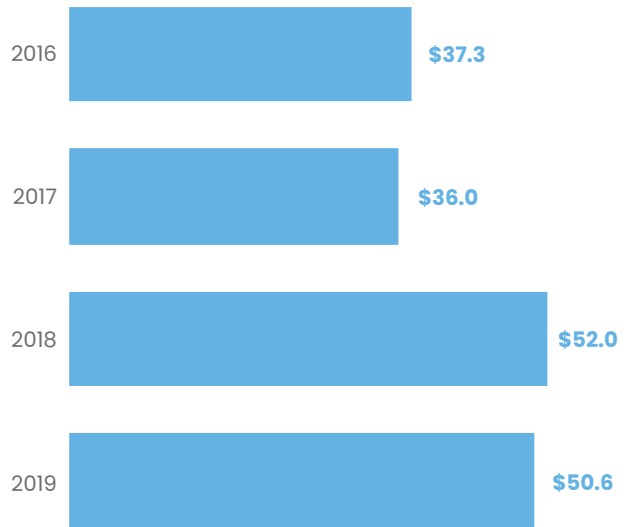
Bioscience Academic R&D Expenditures

\$ Millions, FY 2018



NIH Awards

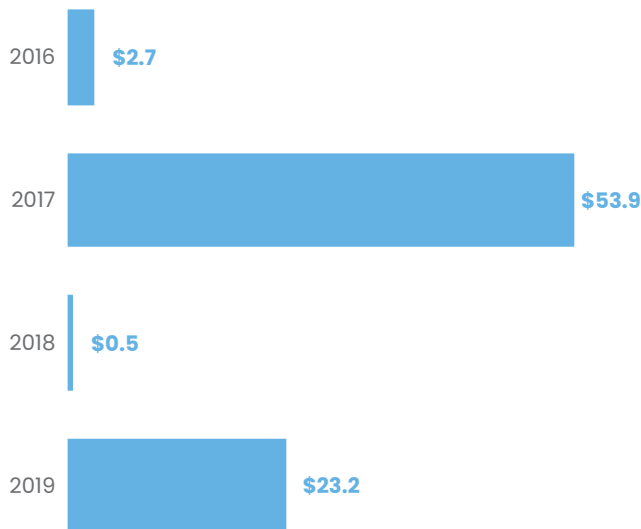
\$ Millions, FY 2016-2019



Bioscience Venture Capital in Montana

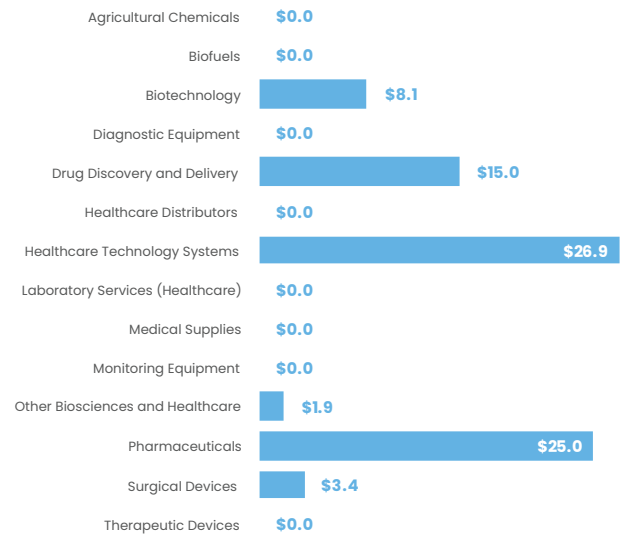
Bioscience-Related Venture Capital Investments

\$ Millions, 2016-2019



Bioscience-Related Venture Capital Investments by Segment

\$ Millions, 2016-2019

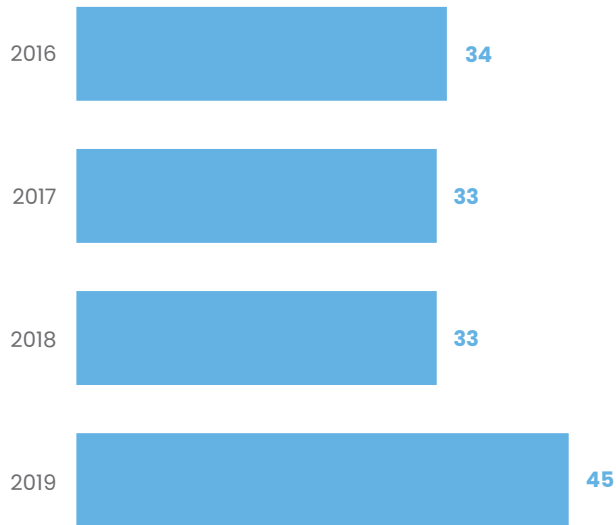




Bioscience Patents in Montana

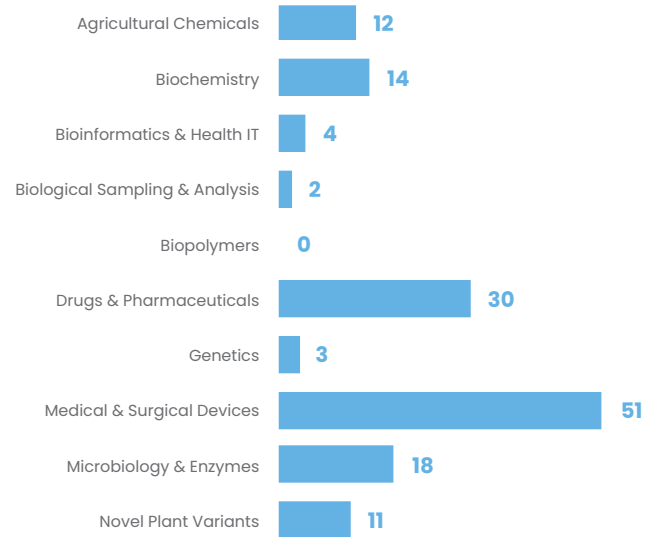
Bioscience-Related U.S. Patents

2016-2019



Bioscience-Related U.S. Patents by Segment

2016-2019



Source Notes

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

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

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: PitchBook Data, Inc.

Patents: U.S. Patent & Trademark Office data from Clarivate Analytics' Derwent Innovation patent analysis database.

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

