



Missouri

The U.S. Bioscience Industry: Fostering Innovation and Driving America's Economy Forward

Missouri's bioscience industry has grown since 2018, increasing employment by 8 percent to reach nearly 36,000 jobs in 2021 across 2,662 state business establishments. Four of the state's five industry subsectors contributed to the overall job gains. Missouri has a specialized employment concentration in the agricultural feedstock and industrial biosciences subsector, where it is two times more concentrated than the national average (location quotient is 2.35). In addition, the state has a high concentration in bioscience-related distribution. The state's research universities conducted nearly \$1.2 billion in bioscience-related R&D in 2020—Missouri has a particularly strong focus in biosciences research across its universities, accounting for 84 percent of all academic R&D. Funding for academic research is being bolstered by steady increases in federal NIH awards to Missouri institutions, which reached \$777 million in 2021. Bioscience-related venture capital investments in Missouri companies increased significantly in 2021 to \$537 million..

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Missouri	United States	Quintile
Bioscience Industry, 2021			
Bioscience Industry Employment	35,739	2,135,704	III
Bioscience Industry Location Quotient	0.88	n/a	III
Bioscience Industry Establishments	2,662	127,389	II
Academic Bioscience R&D Expenditures, FY 2020			
Bioscience R&D (\$ thousands)	\$1,158,028	\$51,108,737	II
Bioscience Share of Total R&D	84%	63%	I
Bioscience R&D Per Capita	\$188	\$154	II
NIH Funding, FY 2021			
Funding (\$ thousands)	\$777,261	\$34,751,109	II
Funding Per Capita	\$126	\$105	II
Bioscience Venture Capital Investments, 2018-21 (\$ millions)			
	\$1,283.78	\$197,674.54	II
Bioscience-Related Patents, 2018-21			
	2,275	153,072	II

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.

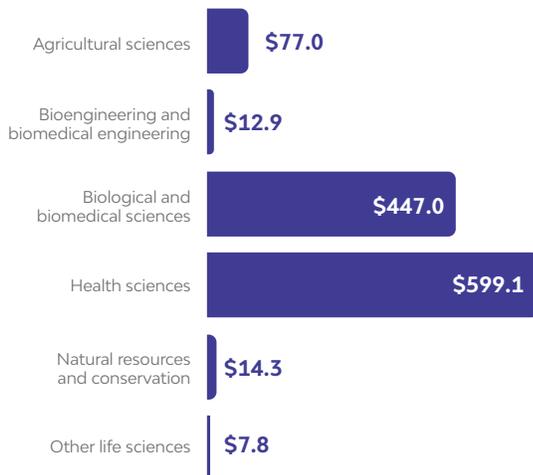
Industry Subsector		Missouri		United States	
		2021	2018–2021 Change	2021	2018–2021 Change
Agricultural Feedstock and Industrial Biosciences	Establishments	74	14.8%	1,948	10.0%
	Employment	3,104	22.6%	69,573	1.9%
	<i>Location Quotient</i>	2.35		n/a	
	Average Annual Wage	\$76,888	10.7%	\$91,989	13.1%
Bioscience- Related Distribution	Establishments	1,531	18.6%	62,697	14.7%
	Employment	13,534	8.6%	602,589	6.6%
	<i>Location Quotient</i>	1.18		n/a	
	Average Annual Wage	\$107,189	12.2%	\$121,606	15.0%
Medical Devices and Equipment	Establishments	146	28.9%	10,268	17.4%
	Employment	3,375	11.3%	398,847	5.5%
	<i>Location Quotient</i>	0.45		n/a	
	Average Annual Wage	\$73,858	11.8%	\$98,481	8.7%
Pharmaceuticals	Establishments	128	62.5%	5,973	34.7%
	Employment	5,567	-0.9%	344,839	11.9%
	<i>Location Quotient</i>	0.85		n/a	
	Average Annual Wage	\$95,273	11.0%	\$126,153	10.3%
Research, Testing, and Medical Laboratories	Establishments	783	56.6%	46,503	34.5%
	Employment	10,160	7.4%	719,856	19.3%
	<i>Location Quotient</i>	0.74		n/a	
	Average Annual Wage	\$99,950	13.8%	\$147,396	22.0%
Total Bioscience Industry	Establishments	2,662	30.0%	127,389	22.3%
	Employment	35,739	8.0%	2,135,704	11.0%
	<i>Location Quotient</i>	0.88		n/a	
	Average Annual Wage	\$97,496	12.1%	\$125,750	16.4%
Total Private Sector	Establishments	211,196	10.6%	10,665,643	9.3%
	Employment	2,344,053	-1.6%	123,376,557	-1.5%
	<i>Location Quotient</i>	1.00		n/a	
	Average Annual Wage	\$57,325	15.6%	\$67,826	18.9%

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

Bioscience Research in Missouri

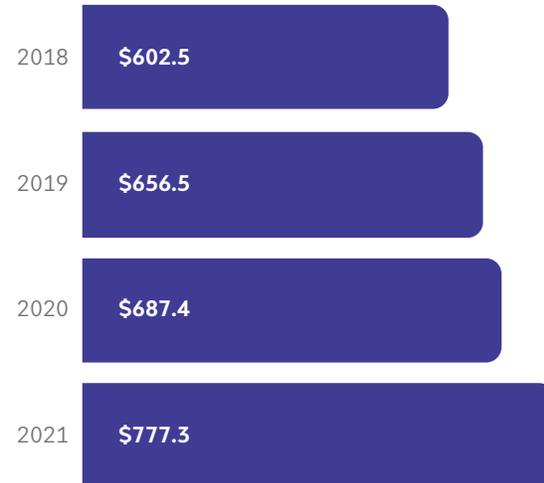
Bioscience Academic R&D Expenditures

\$ Millions, FY 2020



NIH Awards

\$ Millions, FY 2018-2021



Bioscience Venture Capital in Missouri

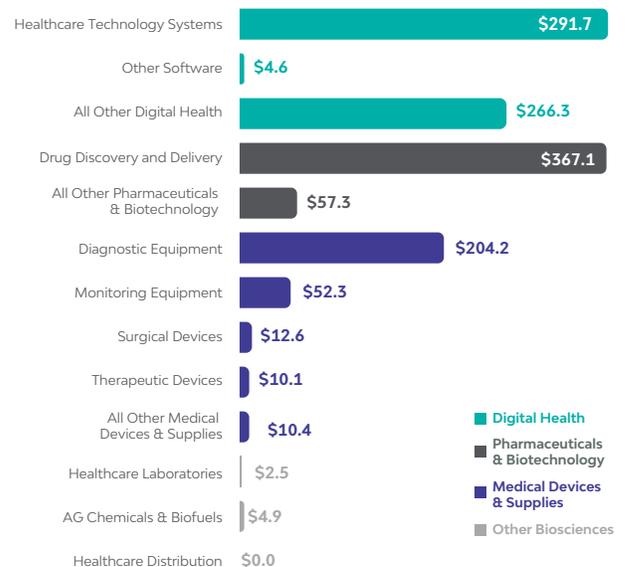
Bioscience-Related Venture Capital Investments

\$ Millions, 2018-2021



Bioscience-Related Venture Capital Investments by Segment

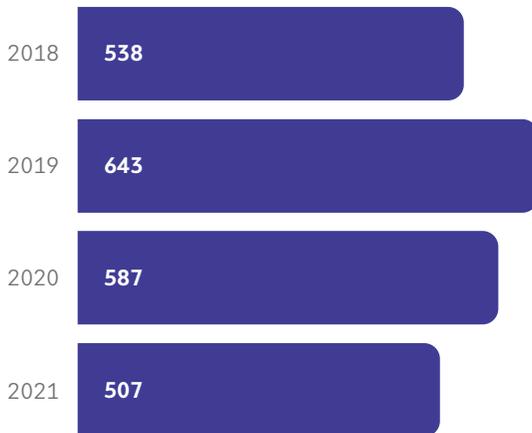
\$ Millions, 2018-2021



Bioscience Patents in Missouri

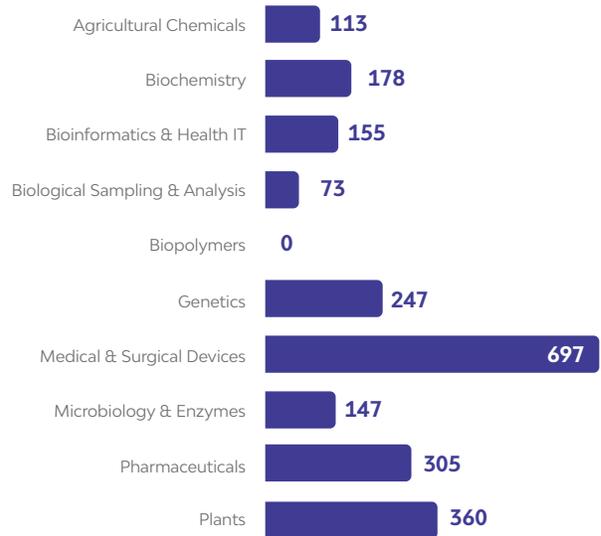
Bioscience-Related U.S. Patents

2018-2021



Bioscience-Related U.S. Patents by Segment

2018-2021



Source Notes

Employment, Establishments and Wages: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced by Lightcast (Datarun 2022.3).

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.