



Oklahoma

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

Oklahoma's bioscience industry has grown in recent years, with state firms increasing their employment base since 2018 by 6.6 percent to more than 10,000 jobs in 2021 across 1,277 state business establishments. Job growth occurred through most of the industry with four of the five bioscience industry subsectors contributing net job gains since 2018. Oklahoma has a specialized employment concentration in the agricultural feedstock and industrial biosciences subsector (location quotient is 1.55). NIH funding awards to state research institutions have risen in recent years and totaled nearly \$128 million in 2021. These federal funds help to fuel, in part, the state's \$269 million in academic R&D expenditures in bioscience-related fields. Venture capital investments in Oklahoma bioscience companies increased significantly in 2021, totaling \$77 million.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Oklahoma	United States	Quintile
Bioscience Industry, 2021			
Bioscience Industry Employment	10,490	2,135,704	IV
Bioscience Industry Location Quotient	0.48	n/a	V
Bioscience Industry Establishments	1,277	127,389	IV
Academic Bioscience R&D Expenditures, FY 2020			
Bioscience R&D (\$ thousands)	\$268,907	\$51,108,737	IV
Bioscience Share of Total R&D	50%	63%	IV
Bioscience R&D Per Capita	\$68	\$154	V
NIH Funding, FY 2021			
Funding (\$ thousands)	\$127,517	\$34,751,109	IV
Funding Per Capita	\$32	\$105	V
Bioscience Venture Capital Investments, 2018-21 (\$ millions)			
	\$197.03	\$197,674.54	III
Bioscience-Related Patents, 2018-21			
	278	153,072	IV

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.

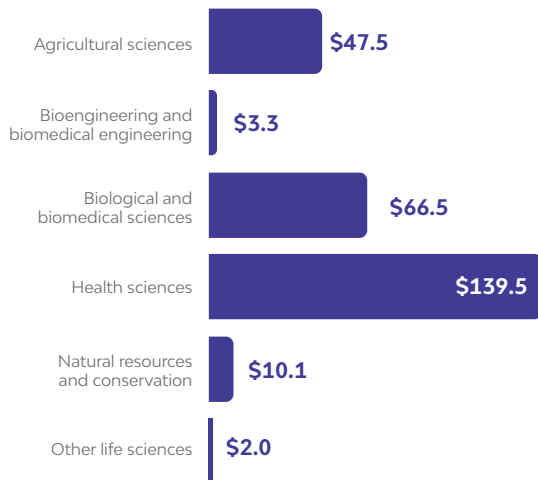
Industry Subsector		Oklahoma		United States	
		2021	2018–2021 Change	2021	2018–2021 Change
Agricultural Feedstock and Industrial Biosciences	Establishments	13	-3.6%	1,948	10.0%
	Employment	1,093	-2.7%	69,573	1.9%
	<i>Location Quotient</i>	1.55		n/a	
	Average Annual Wage	\$101,550	17.1%	\$91,989	13.1%
Bioscience- Related Distribution	Establishments	770	11.3%	62,697	14.7%
	Employment	4,050	3.9%	602,589	6.6%
	<i>Location Quotient</i>	0.66		n/a	
	Average Annual Wage	\$103,974	8.0%	\$121,606	15.0%
Medical Devices and Equipment	Establishments	60	12.7%	10,268	17.4%
	Employment	974	4.5%	398,847	5.5%
	<i>Location Quotient</i>	0.24		n/a	
	Average Annual Wage	\$89,870	37.1%	\$98,481	8.7%
Pharmaceuticals	Establishments	36	54.3%	5,973	34.7%
	Employment	874	27.3%	344,839	11.9%
	<i>Location Quotient</i>	0.25		n/a	
	Average Annual Wage	\$93,959	11.6%	\$126,153	10.3%
Research, Testing, and Medical Laboratories	Establishments	397	18.1%	46,503	34.5%
	Employment	3,499	9.3%	719,856	19.3%
	<i>Location Quotient</i>	0.48		n/a	
	Average Annual Wage	\$69,971	23.3%	\$147,396	22.0%
Total Bioscience Industry	Establishments	1,277	14.1%	127,389	22.3%
	Employment	10,490	6.6%	2,135,704	11.0%
	<i>Location Quotient</i>	0.48		n/a	
	Average Annual Wage	\$90,236	14.8%	\$125,750	16.4%
Total Private Sector	Establishments	109,897	4.8%	10,665,643	9.3%
	Employment	1,252,919	-2.5%	123,376,557	-1.5%
	<i>Location Quotient</i>	1.00		n/a	
	Average Annual Wage	\$50,843	8.7%	\$67,826	18.9%

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

Bioscience Research in Oklahoma

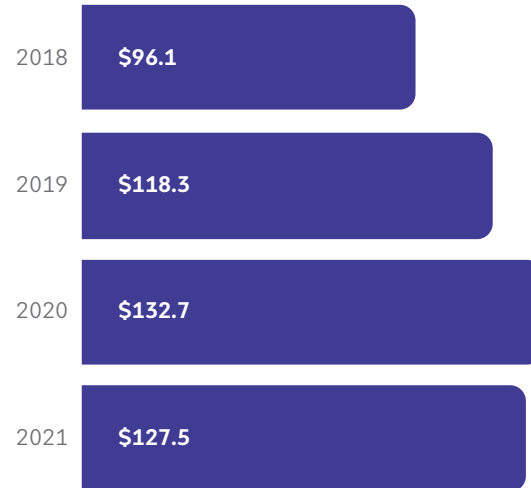
Bioscience Academic R&D Expenditures

\$ Millions, FY 2020



NIH Awards

\$ Millions, FY 2018-2021



Bioscience Venture Capital in Oklahoma

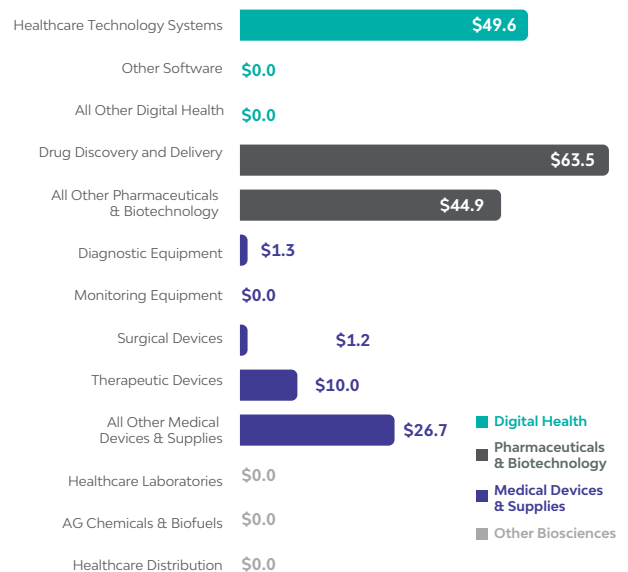
Bioscience-Related Venture Capital Investments

\$ Millions, 2018-2021



Bioscience-Related Venture Capital Investments by Segment

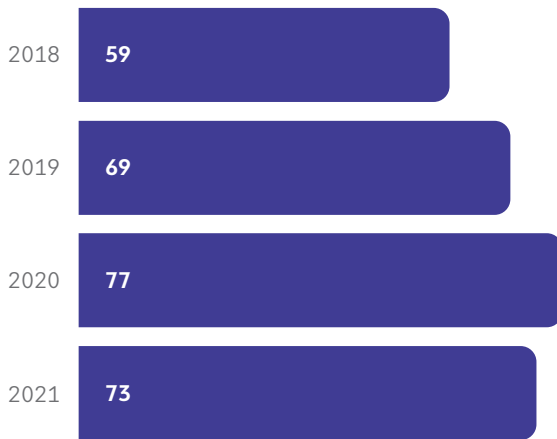
\$ Millions, 2018-2021



Bioscience Patents in Oklahoma

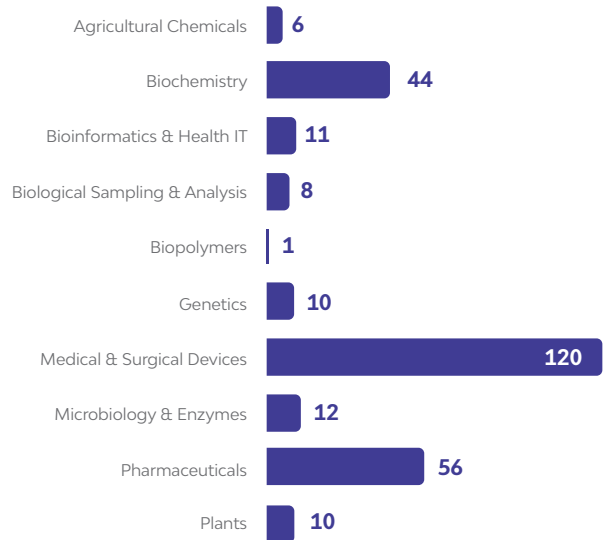
Bioscience-Related U.S. Patents

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.