

West Virginia

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

West Virginia's bioscience industry employed 6,581 in 2021 across 673 state business establishments. The industry has experienced an employment decline in the state since 2018. West Virginia is specialized in the pharmaceuticals subsector of the biosciences, with a location quotient of 1.56 and nearly 2,300 state jobs. NIH funding to West Virginia research institutions has grown in recent years and reached \$49 million in 2021. State research universities spent \$131 million on biosciences R&D in 2020.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	West Virginia	United States	Quintile
Bioscience Industry, 2021			
Bioscience Industry Employment	6,581	2,135,704	V
Bioscience Industry Location Quotient	0.72	n/a	III
Bioscience Industry Establishments	673	127,389	V
Academic Bioscience R&D Expenditures, FY 2020			
Bioscience R&D (\$ thousands)	\$131,181	\$51,108,737	V
Bioscience Share of Total R&D	64%	63%	III
Bioscience R&D Per Capita	\$73	\$154	V
NIH Funding, FY 2021			
Funding (\$ thousands)	\$49,251	\$34,751,109	V
Funding Per Capita	\$28	\$105	V
Bioscience Venture Capital Investments, 2018-21 (\$ millions)			
	\$7.50	\$197,674.54	V
Bioscience-Related Patents, 2018-21			
	158	153,072	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.

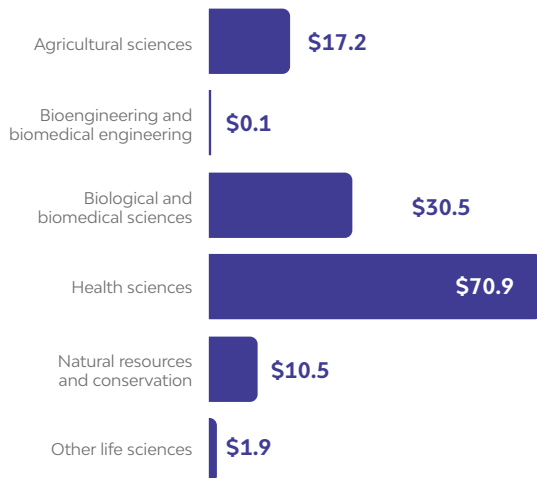
Industry Subsector		West Virginia		United States	
		2021	2018–2021 Change	2021	2018–2021 Change
Agricultural Feedstock and Industrial Biosciences	Establishments	5	75.0%	1,948	10.0%
	Employment	21	-87.4%	69,573	1.9%
	<i>Location Quotient</i>	0.07		n/a	
	Average Annual Wage	\$99,787	46.6%	\$91,989	13.1%
Bioscience- Related Distribution	Establishments	323	11.8%	62,697	14.7%
	Employment	2,046	4.9%	602,589	6.6%
	<i>Location Quotient</i>	0.80		n/a	
	Average Annual Wage	\$107,959	8.5%	\$121,606	15.0%
Medical Devices and Equipment	Establishments	24	56.7%	10,268	17.4%
	Employment	732	-16.9%	398,847	5.5%
	<i>Location Quotient</i>	0.43		n/a	
	Average Annual Wage	\$70,102	11.0%	\$98,481	8.7%
Pharmaceuticals	Establishments	32	323.3%	5,973	34.7%
	Employment	2,294	-18.2%	344,839	11.9%
	<i>Location Quotient</i>	1.56		n/a	
	Average Annual Wage	\$108,100	16.3%	\$126,153	10.3%
Research, Testing, and Medical Laboratories	Establishments	289	13.2%	46,503	34.5%
	Employment	1,487	9.1%	719,856	19.3%
	<i>Location Quotient</i>	0.49		n/a	
	Average Annual Wage	\$66,444	20.2%	\$147,396	22.0%
Total Bioscience Industry	Establishments	673	18.1%	127,389	22.3%
	Employment	6,581	-8.1%	2,135,704	11.0%
	<i>Location Quotient</i>	0.72		n/a	
	Average Annual Wage	\$94,391	13.3%	\$125,750	16.4%
Total Private Sector	Establishments	49,354	4.8%	10,665,643	9.3%
	Employment	524,858	-6.1%	123,376,557	-1.5%
	<i>Location Quotient</i>	1.00		n/a	
	Average Annual Wage	\$49,749	8.7%	\$67,826	18.9%

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

Bioscience Research in West Virginia

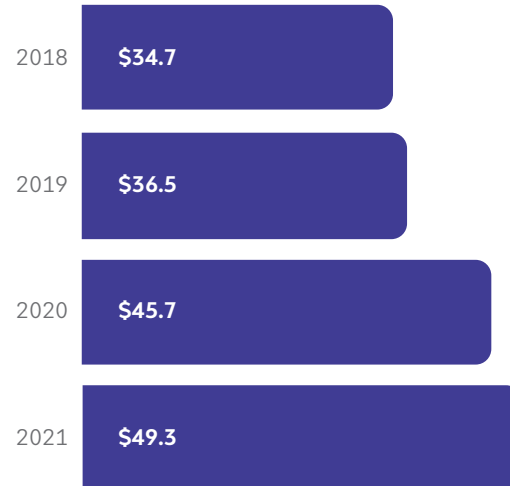
Bioscience Academic R&D Expenditures

\$ Millions, FY 2020



NIH Awards

\$ Millions, FY 2018-2021



Bioscience Venture Capital in West Virginia

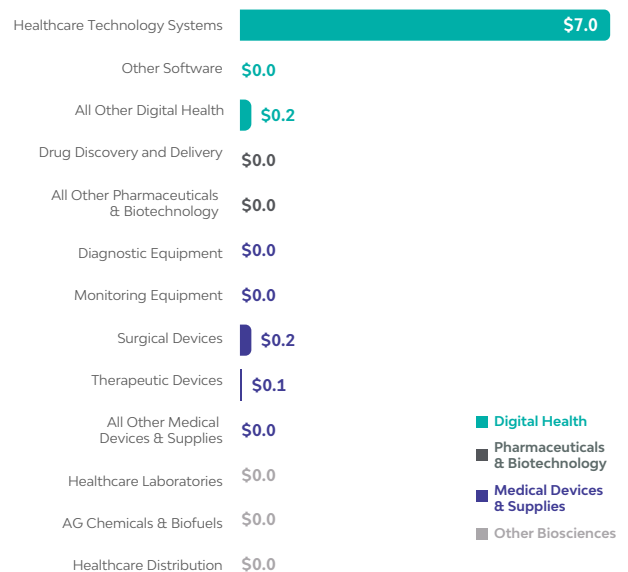
Bioscience-Related Venture Capital Investments

\$ Millions, 2018-2021



Bioscience-Related Venture Capital Investments by Segment

\$ Millions, 2018-2021

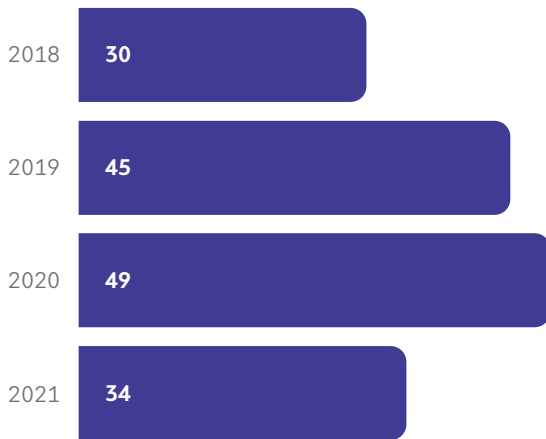


- Digital Health
- Pharmaceuticals & Biotechnology
- Medical Devices & Supplies
- Other Biosciences

Bioscience Patents in West Virginia

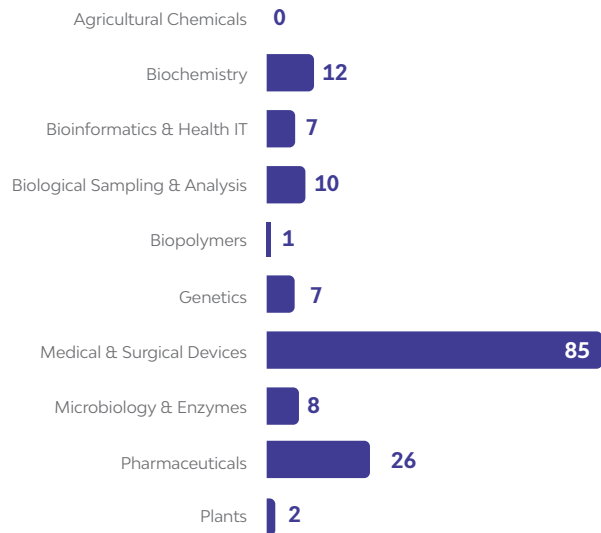
Bioscience-Related U.S. Patents

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.