

Kentucky

The U.S. Bioscience Economy:

Advancing Innovation and Strengthening States and Regions



Kentucky's bioscience employment grew by 6.9 percent from 2021 through 2025, essentially matching national growth. Bioscience businesses accounted for 17,675 jobs across 2,588 establishments in 2025. Kentucky's bioscience industry recorded employment gains across all five major subsectors from 2021 through 2025. Agricultural feedstock and industrial biosciences, medical devices and equipment, and pharmaceuticals each achieved double-digit growth. Bioscience-related distribution remains the largest subsector, accounting for nearly half of industry employment. Average annual bioscience wages were \$113,580, 81 percent above Kentucky's private sector average. Bioscience fields are a particular focus of university research, representing 80 percent of academic science and engineering R&D expenditures. This research totaled \$596.3 million in FY 2024, while Kentucky institutions received \$230.7 million in NIH funding in FY 2025.

BIOSCIENCE PERFORMANCE METRICS

Summary of State Performance in Selected Bioscience-related Metrics

METRIC		Kentucky	United States	Quintile
Bioscience Industry, 2025	Bioscience Industry Employment	17,675	2,312,617	III
	Bioscience Industry Location Quotient	0.60	n/a	IV
	Bioscience Industry Establishments	2,588	156,463	III
Academic Bioscience R&D Expenditures, FY 2024	Bioscience R&D (\$ thousands)	\$596,340	\$68,902,940	III
	Bioscience Share of Total R&D	80%	63%	I
	Bioscience R&D Per Capita	\$130	\$203	IV
NIH Funding, FY 2025	Funding (\$ thousands)	\$230,684	\$36,741,235	III
	Funding Per Capita	\$50	\$107	IV
Bioscience Venture Capital, 2021-25	Investments (\$ millions)	\$163.19	\$297,644	IV
Bioscience-Related Patents, 2021-25	Total Patents	974	138,607	III

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.

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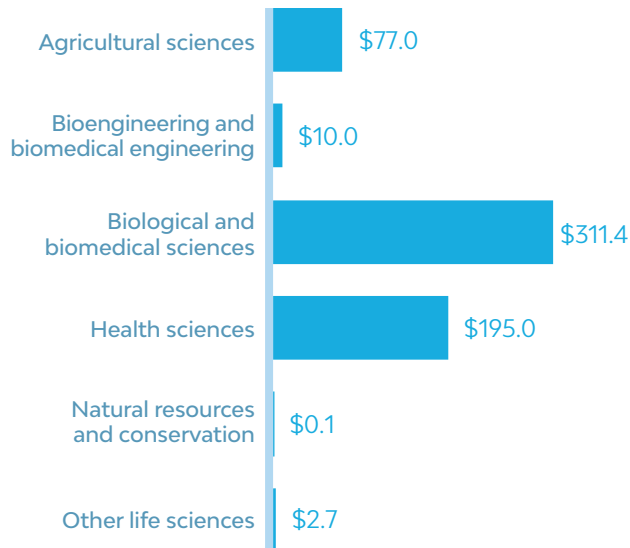
INDUSTRY SUBSECTOR		Kentucky		United States	
		2025	2021-2025 Change	2025	2021-2025 Change
Agricultural Feedstock and Industrial Biosciences	Establishments	36	11.8%	2,158	10.7%
	Employment	491	19.6%	71,331	2.2%
	Location Quotient	0.54		n/a	
	Average Annual Wage	\$89,143	19.1%	\$105,506	14.7%
Bioscience-Related Distribution	Establishments	1,068	0.7%	68,949	10.0%
	Employment	8,532	3.5%	667,651	10.7%
	Location Quotient	1.01		n/a	
	Average Annual Wage	\$128,379	23.6%	\$144,792	19.0%
Medical Devices and Equipment	Establishments	286	76.8%	13,595	24.6%
	Employment	1,602	15.5%	430,363	1.9%
	Location Quotient	0.29		n/a	
	Average Annual Wage	\$82,135	24.2%	\$110,757	13.9%
Pharmaceuticals	Establishments	203	65.8%	7,880	31.0%
	Employment	2,045	11.7%	363,904	5.4%
	Location Quotient	0.44		n/a	
	Average Annual Wage	\$117,064	24.0%	\$146,506	16.3%
Research, Testing, and Medical Laboratories	Establishments	995	101.4%	63,881	37.0%
	Employment	5,004	7.4%	779,368	8.1%
	Location Quotient	0.51		n/a	
	Average Annual Wage	\$99,391	24.9%	\$167,555	13.7%
Total Bioscience Industry	Establishments	2,588	38.3%	156,463	22.1%
	Employment	17,675	6.9%	2,312,617	7.0%
	Location Quotient	0.60		n/a	
	Average Annual Wage	\$113,580	23.4%	\$145,188	16.0%
Total Private Sector	Establishments	154,661	20.6%	11,985,043	12.5%
	Employment	1,691,898	7.1%	133,872,972	8.5%
	Location Quotient	1.00		n/a	
	Average Annual Wage	\$62,667	18.3%	\$78,863	16.3%

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

BIOSCIENCE RESEARCH IN KENTUCKY

Bioscience Academic R&D Expenditures

\$ Millions, FY 2024



NIH Awards

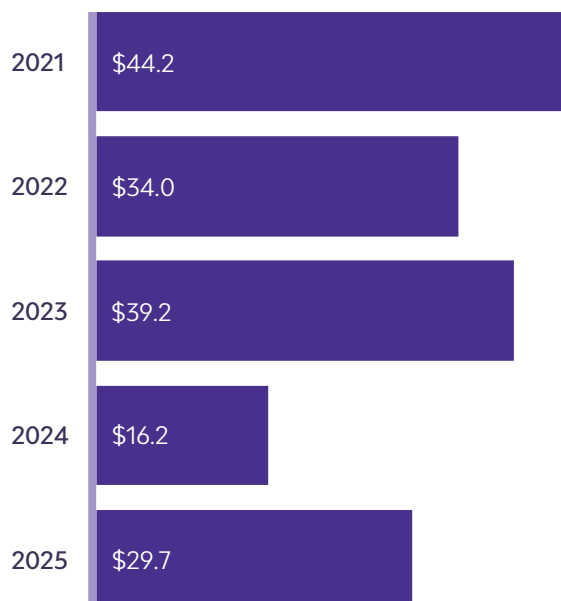
\$ Millions, FY 2021-2025



BIOSCIENCE VENTURE CAPITAL IN KENTUCKY

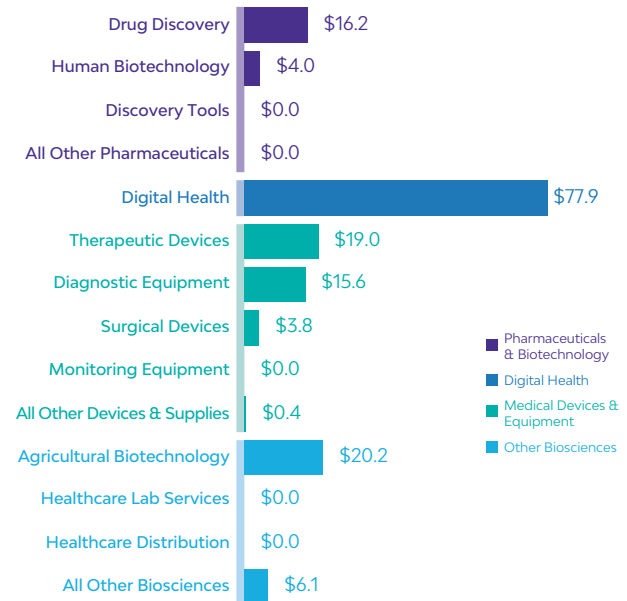
Bioscience-Related Venture Capital Investments

\$ Millions, 2021-2025



Bioscience-Related Venture Capital Investments by Segment

\$ Millions, 2021-2025

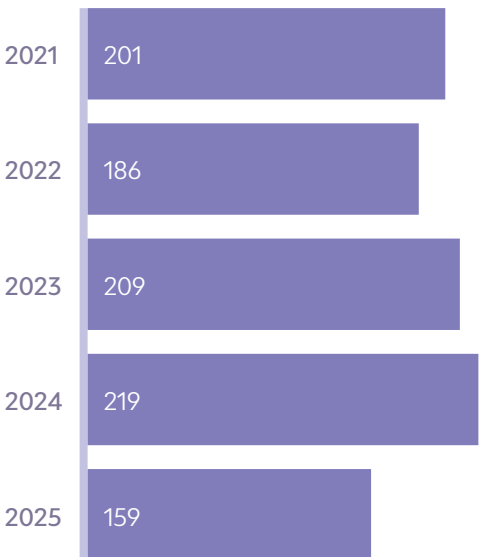


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BIOSCIENCE PATENTS IN KENTUCKY

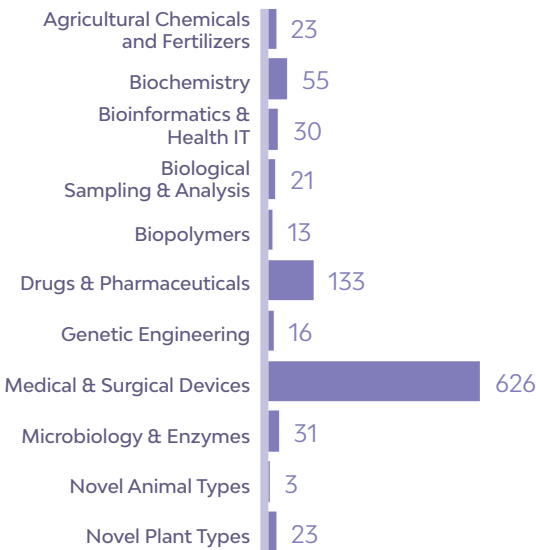
Bioscience-Related U.S. Patents

2021-2025



Bioscience-Related U.S. Patents by Segment

2021-2025



SOURCE NOTES

Employment, Establishments and Wages: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced by Lightcast (Datarun 2026.3).

Academic R&D Expenditures: National Science Foundation (NSF), National Center for Science and Engineering Statistics (NCSES), Higher Education Research and Development (HERD) Survey.

NIH Funding: National Institutes of Health, NIH Awards via the NIH RePORT portal.

Venture Capital: PitchBook Data, Inc.

Patents: U.S. Patent & Trademark Office data from the Clarivate Derwent Patent Search patent analysis database.

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