



Illinois

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

Illinois' bioscience industry is large, highly concentrated, and diverse in its strengths. State employers grew their employment base by 4.5 percent since 2018 to reach nearly 91,000 jobs in 2021 that span 4,297 business establishments. The diverse bioscience strengths are evident in Illinois' employment specializations in three of the five industry subsectors—agricultural feedstock and industrial biosciences; pharmaceuticals; and bioscience-related distribution. Overall, the state is 6 percent more concentrated in the biosciences relative to the national average (industry location quotient is 1.06). Illinois is among the top tier of all states in its bioscience-related university R&D activities—research institutions spent more than \$1.7 billion in 2020 on R&D. Illinois has seen a major increase in bioscience-related venture capital investments in 2021, with totals reaching nearly \$2 billion.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

| Metric | Illinois | United States | Quintile |
|--|-------------|---------------|----------|
| Bioscience Industry, 2021 | | | |
| Bioscience Industry Employment | 90,941 | 2,135,704 | I |
| Bioscience Industry Location Quotient | 1.06 | n/a | II |
| Bioscience Industry Establishments | 4,297 | 127,389 | I |
| Academic Bioscience R&D Expenditures, FY 2020 | | | |
| Bioscience R&D (\$ thousands) | \$1,736,866 | \$51,108,737 | I |
| Bioscience Share of Total R&D | 66% | 63% | II |
| Bioscience R&D Per Capita | \$136 | \$154 | III |
| NIH Funding, FY 2021 | | | |
| Funding (\$ thousands) | \$1,127,993 | \$34,751,109 | I |
| Funding Per Capita | \$89 | \$105 | II |
| Bioscience Venture Capital Investments, 2018-21 (\$ millions) | | | |
| | \$4,219.00 | \$197,674.54 | I |
| Bioscience-Related Patents, 2018-21 | | | |
| | 4,061 | 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.

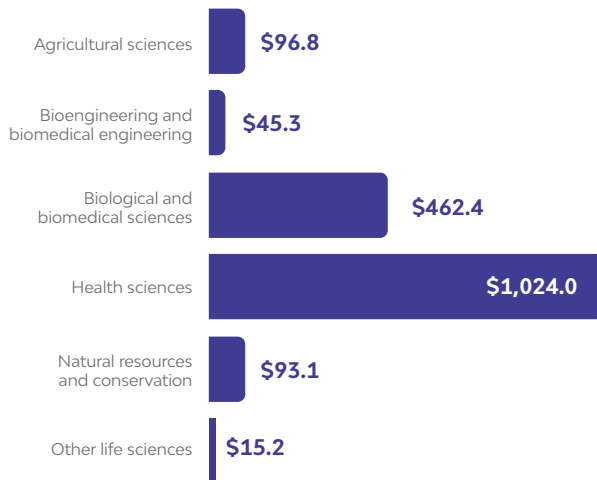
| Industry Subsector | | Illinois | | United States | |
|---|--------------------------|-----------|------------------|---------------|------------------|
| | | 2021 | 2018–2021 Change | 2021 | 2018–2021 Change |
| Agricultural Feedstock and Industrial Biosciences | Establishments | 102 | 29.7% | 1,948 | 10.0% |
| | Employment | 9,035 | 6.8% | 69,573 | 1.9% |
| | <i>Location Quotient</i> | 3.24 | | n/a | |
| | Average Annual Wage | \$119,462 | 15.7% | \$91,989 | 13.1% |
| Bioscience-Related Distribution | Establishments | 2,135 | -2.2% | 62,697 | 14.7% |
| | Employment | 30,526 | 1.0% | 602,589 | 6.6% |
| | <i>Location Quotient</i> | 1.26 | | n/a | |
| | Average Annual Wage | \$137,298 | 18.7% | \$121,606 | 15.0% |
| Medical Devices and Equipment | Establishments | 616 | 17.2% | 10,268 | 17.4% |
| | Employment | 11,363 | -9.8% | 398,847 | 5.5% |
| | <i>Location Quotient</i> | 0.71 | | n/a | |
| | Average Annual Wage | \$113,524 | -2.0% | \$98,481 | 8.7% |
| Pharmaceuticals | Establishments | 310 | 53.8% | 5,973 | 34.7% |
| | Employment | 22,400 | 10.3% | 344,839 | 11.9% |
| | <i>Location Quotient</i> | 1.62 | | n/a | |
| | Average Annual Wage | \$184,688 | 6.2% | \$126,153 | 10.3% |
| Research, Testing, and Medical Laboratories | Establishments | 1,135 | 30.5% | 46,503 | 34.5% |
| | Employment | 17,617 | 14.0% | 719,856 | 19.3% |
| | <i>Location Quotient</i> | 0.61 | | n/a | |
| | Average Annual Wage | \$124,149 | -6.7% | \$147,396 | 22.0% |
| Total Bioscience Industry | Establishments | 4,297 | 11.4% | 127,389 | 22.3% |
| | Employment | 90,941 | 4.5% | 2,135,704 | 11.0% |
| | <i>Location Quotient</i> | 1.06 | | n/a | |
| | Average Annual Wage | \$141,681 | 8.0% | \$125,750 | 16.4% |
| Total Private Sector | Establishments | 380,763 | 6.2% | 10,665,643 | 9.3% |
| | Employment | 4,947,022 | -4.8% | 123,376,557 | -1.5% |
| | <i>Location Quotient</i> | 1.00 | | n/a | |
| | Average Annual Wage | \$71,086 | 17.6% | \$67,826 | 18.9% |

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

Bioscience Research in Illinois

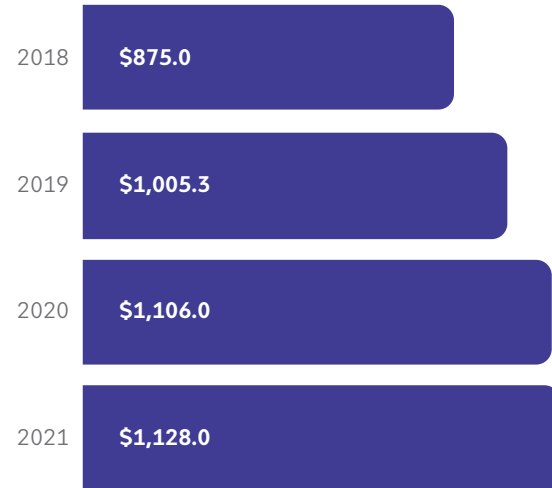
Bioscience Academic R&D Expenditures

\$ Millions, FY 2020



NIH Awards

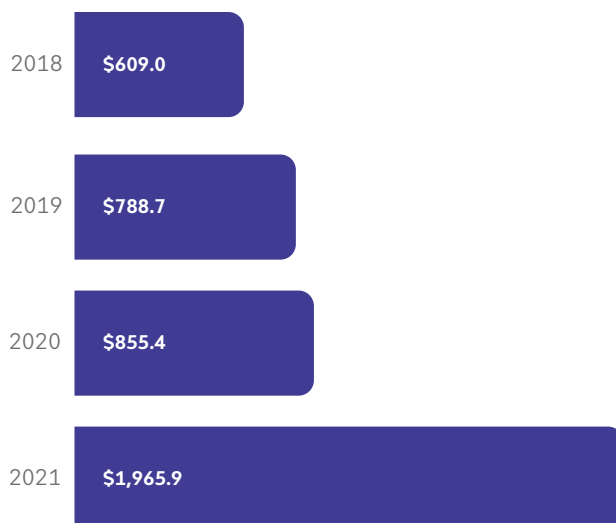
\$ Millions, FY 2018-2021



Bioscience Venture Capital in Illinois

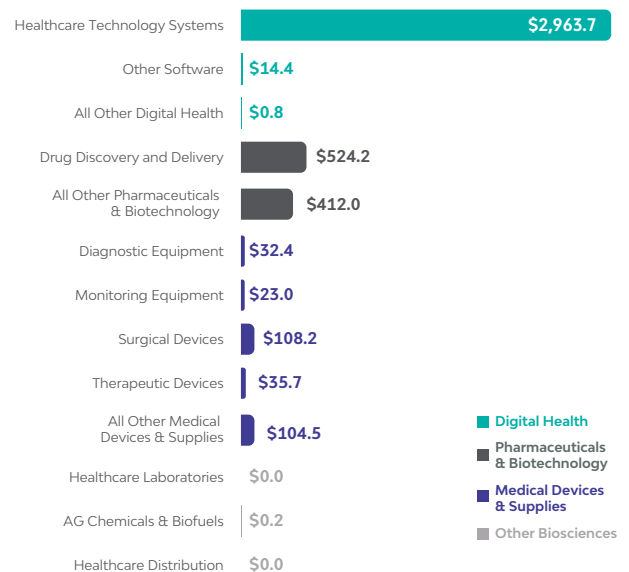
Bioscience-Related Venture Capital Investments

\$ Millions, 2018-2021



Bioscience-Related Venture Capital Investments by Segment

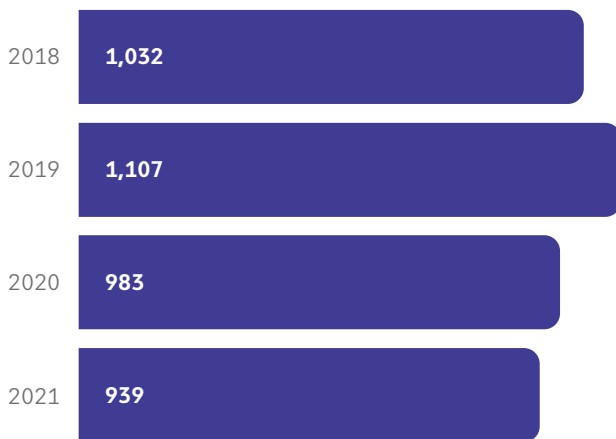
\$ Millions, 2018-2021



Bioscience Patents in Illinois

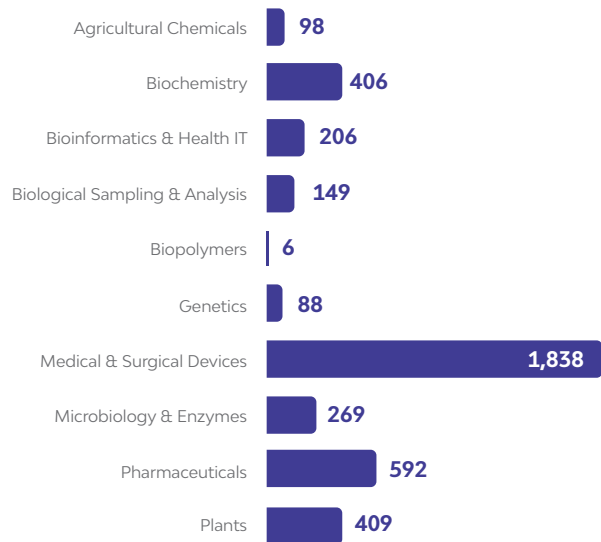
Bioscience-Related U.S. Patents

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.