



Nebraska is home to a specialized and growing bioscience industry with diverse strengths. Industry employment totaled nearly 17,000 in 2016 across 1,164 business establishments around the state. Bioscience employment is 45 percent more concentrated in Nebraska compared with the national average—its location quotient is 1.45. Within the industry, the state is specialized in its concentrations of three industry subsectors—agricultural feedstock and industrial biosciences; bioscience-related distribution; and medical device manufacturing. The biosciences grew by 2.7 percent from 2014 through 2016 with job gains in four of the five subsectors. The state’s research universities conducted nearly \$336 million in bioscience-related R&D in 2016. Nebraska has a particularly strong focus in biosciences research across its universities, accounting for 75 percent of all academic R&D.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

| Metric | Nebraska | United States | Quintile |
|--|-----------|---------------|----------|
| Bioscience Industry, 2016 | | | |
| Bioscience Industry Employment | 16,870 | 1,743,639 | III |
| Bioscience Industry Location Quotient | 1.45 | n/a | I |
| Bioscience Industry Establishments | 1,164 | 85,702 | III |
| Academic Bioscience R&D Expenditures, FY 2016 | | | |
| Bioscience R&D (\$ thousands) | \$335,612 | \$41,972,205 | III |
| Bioscience Share of Total R&D | 75% | 62% | I |
| Bioscience R&D Per Capita | \$176 | \$130 | I |
| NIH Funding, FY 2017 | | | |
| Funding (\$ thousands) | \$108,034 | \$26,150,485 | IV |
| Funding Per Capita | \$56 | \$80 | III |
| Bioscience Venture Capital Investments, 2014-17 (\$ millions) | | | |
| | \$52.88 | \$66,168.62 | IV |
| Bioscience and Related Patents, 2014-17 | | | |
| | 524 | 102,862 | 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 | Nebraska | | United States | |
|--|----------|------------------|---------------|------------------|
| | 2016 | 2014-2016 Change | 2016 | 2014-2016 Change |
| Agricultural Feedstock and Industrial Biosciences | | | | |
| Establishments | 54 | 1.9% | 1,709 | -3.2% |
| Employment | 2,873 | 4.2% | 68,027 | -1.2% |
| Location Quotient | 6.32 | | n/a | |
| Direct-Effect Employment Multiplier | 6.29 | | | |
| Total Employment Impact | 18,081 | | | |
| Average Annual Wage | \$65,999 | 4.1% | \$80,961 | 2.7% |
| Bioscience-Related Distribution | | | | |
| Establishments | 905 | 7.3% | 39,149 | 3.8% |
| Employment | 6,315 | 3.1% | 469,640 | 3.7% |
| Location Quotient | 2.01 | | n/a | |
| Direct-Effect Employment Multiplier | 2.22 | | | |
| Total Employment Impact | 14,045 | | | |
| Average Annual Wage | \$66,455 | 5.2% | \$93,677 | 2.7% |
| Drugs and Pharmaceuticals | | | | |
| Establishments | 24 | 14.3% | 3,754 | 13.7% |
| Employment | 1,692 | -1.9% | 299,113 | 2.0% |
| Location Quotient | 0.85 | | n/a | |
| Direct-Effect Employment Multiplier | 4.31 | | | |
| Total Employment Impact | 7,287 | | | |
| Average Annual Wage | \$70,427 | -3.3% | \$113,815 | -3.2% |
| Medical Devices and Equipment | | | | |
| Establishments | 24 | -11.1% | 8,083 | 5.9% |
| Employment | 3,997 | 2.8% | 359,293 | 2.9% |
| Location Quotient | 1.67 | | n/a | |
| Direct-Effect Employment Multiplier | 2.58 | | | |
| Total Employment Impact | 10,314 | | | |
| Average Annual Wage | \$55,814 | 5.3% | \$84,746 | 6.5% |
| Research, Testing and Medical Laboratories | | | | |
| Establishments | 157 | 22.4% | 33,007 | 13.1% |
| Employment | 1,993 | 3.2% | 547,566 | 8.2% |
| Location Quotient | 0.54 | | n/a | |
| Direct-Effect Employment Multiplier | 2.19 | | | |
| Total Employment Impact | 4,365 | | | |
| Average Annual Wage | \$64,762 | 4.4% | \$106,942 | 5.5% |
| Total Bioscience Industry | | | | |
| Establishments | 1,164 | 8.5% | 85,702 | 7.7% |
| Employment | 16,870 | 2.7% | 1,743,639 | 4.4% |
| Location Quotient | 1.45 | | n/a | |
| Direct-Effect Employment Multiplier | 3.21 | | | |
| Total Employment Impact | 54,093 | | | |
| Average Annual Wage | \$64,055 | 3.8% | \$98,961 | 3.1% |
| Total Private Sector | | | | |
| Establishments | 69,234 | 3.8% | 9,243,034 | 3.4% |
| Employment | 807,601 | 2.6% | 120,884,570 | 4.2% |
| Average Annual Wage | \$43,104 | 6.1% | \$53,354 | 4.3% |

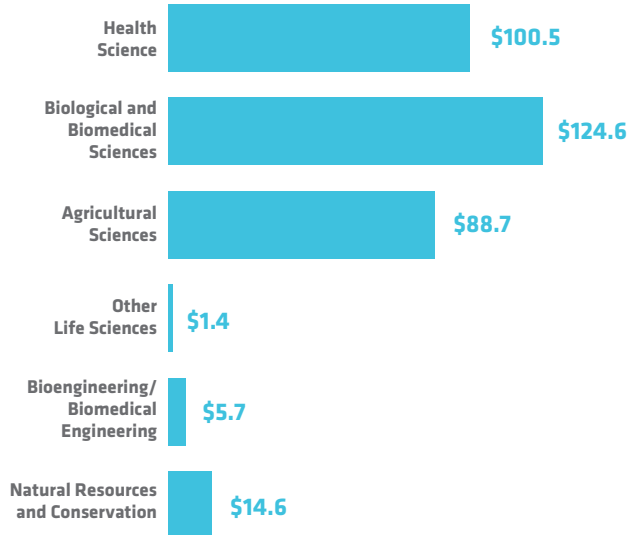
Note: U.S. employment metrics include Puerto Rico.

Bioscience Research in Nebraska

Bioscience Academic R&D Expenditures

\$ Millions

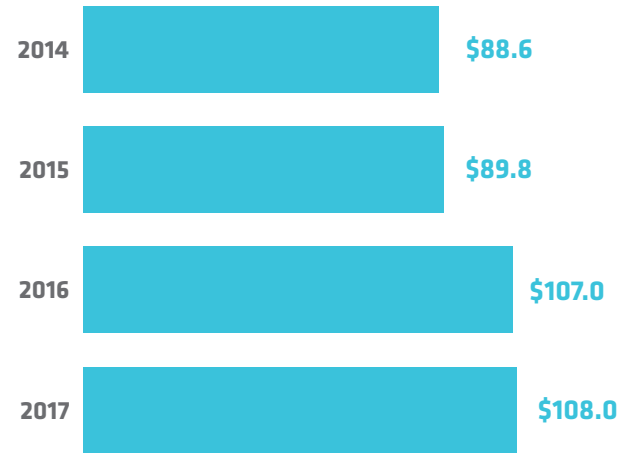
FY 2016



NIH Awards

\$ Millions

FY 2014-2017

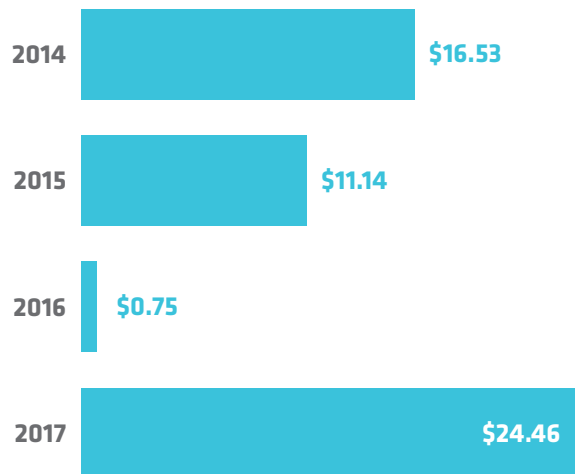


Bioscience Venture Capital in Nebraska

Bioscience-Related Venture Capital Investments

\$ Millions

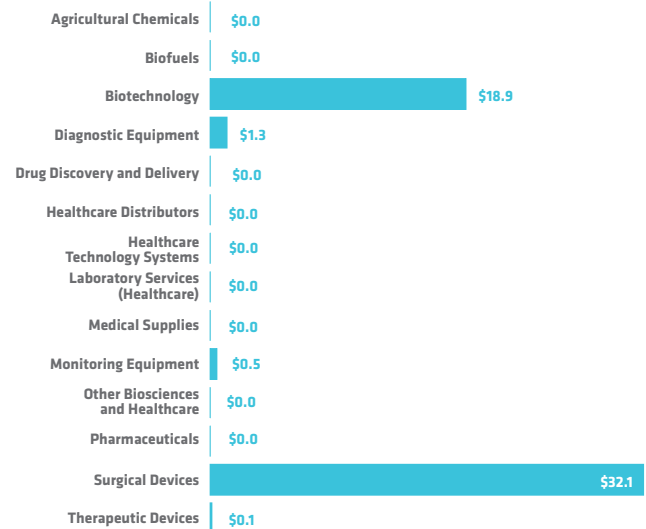
2014-2017



Bioscience-Related Venture Capital Investments by Segment

\$ Millions

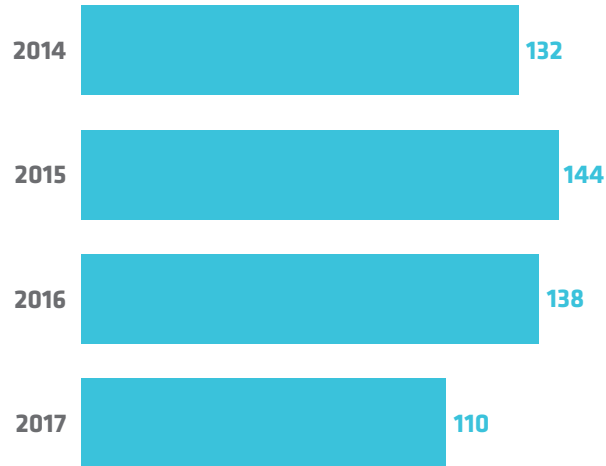
2014-2017



Bioscience Patents in Nebraska

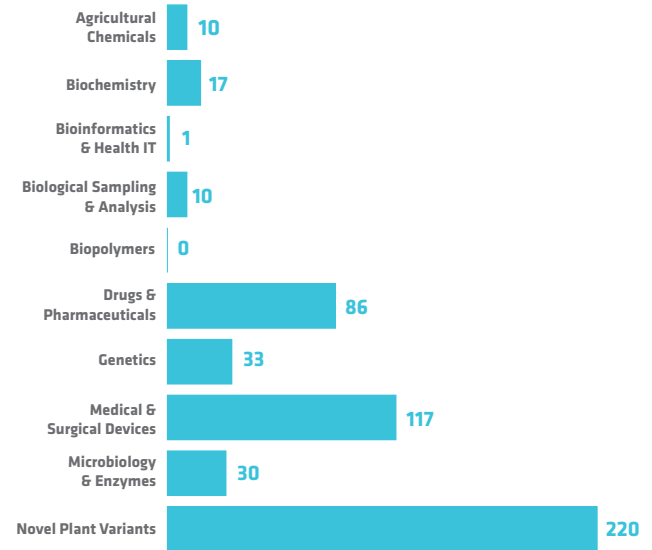
Bioscience-Related U.S. Patents

2014-2017



Bioscience-Related U.S. Patents by Segment

2014-2017



Source Notes

Employment, Establishments and Wages: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced file from IMPLAN.

Employment Multipliers: IMPLAN state-level Input/Output models.

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.