



Delaware’s bioscience industry employed nearly 8,000 in 2016 and is 45 percent more specialized in its employment concentration compared with the nation (location quotient is 1.45). The state industry’s physical footprint includes 495 business establishments. Delaware has a specialized concentration in two major subsectors—research, testing and medical labs and medical device manufacturing. While industry employment has declined in Delaware since 2014, both medical devices and agricultural feedstock and industrial biosciences have added jobs. State bioscience companies have received nearly \$61 million in venture capital investments since 2014.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

| Metric | Delaware | United States | Quintile |
|--|----------|---------------|----------|
| Bioscience Industry, 2016 | | | |
| Bioscience Industry Employment | 7,861 | 1,743,639 | IV |
| Bioscience Industry Location Quotient | 1.45 | n/a | I |
| Bioscience Industry Establishments | 495 | 85,702 | IV |
| Academic Bioscience R&D Expenditures, FY 2016 | | | |
| Bioscience R&D (\$ thousands) | \$73,483 | \$41,972,205 | V |
| Bioscience Share of Total R&D | 39% | 62% | V |
| Bioscience R&D Per Capita | \$77 | \$130 | IV |
| NIH Funding, FY 2017 | | | |
| Funding (\$ thousands) | \$43,479 | \$26,150,485 | V |
| Funding Per Capita | \$45 | \$80 | III |
| Bioscience Venture Capital Investments, 2014-17 (\$ millions) | \$60.97 | \$66,168.62 | III |
| Bioscience and Related Patents, 2014-17 | 943 | 102,862 | 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.

| Industry Subsector | Delaware | | United States | |
|--|-----------|------------------|---------------|------------------|
| | 2016 | 2014-2016 Change | 2016 | 2014-2016 Change |
| Agricultural Feedstock and Industrial Biosciences | | | | |
| Establishments | 4 | 0.0% | 1,709 | -3.2% |
| Employment | 144 | 3.5% | 68,027 | -1.2% |
| Location Quotient | 0.68 | | n/a | |
| Direct-Effect Employment Multiplier | 7.27 | | | |
| Total Employment Impact | 1,047 | | | |
| Average Annual Wage | \$103,507 | -9.2% | \$80,961 | 2.7% |
| Bioscience-Related Distribution | | | | |
| Establishments | 269 | 33.8% | 39,149 | 3.8% |
| Employment | 1,519 | -10.1% | 469,640 | 3.7% |
| Location Quotient | 1.04 | | n/a | |
| Direct-Effect Employment Multiplier | 2.08 | | | |
| Total Employment Impact | 3,166 | | | |
| Average Annual Wage | \$148,702 | -17.1% | \$93,677 | 2.7% |
| Drugs and Pharmaceuticals | | | | |
| Establishments | 36 | -14.3% | 3,754 | 13.7% |
| Employment | 589 | -4.2% | 299,113 | 2.0% |
| Location Quotient | 0.63 | | n/a | |
| Direct-Effect Employment Multiplier | 3.88 | | | |
| Total Employment Impact | 2,287 | | | |
| Average Annual Wage | \$95,348 | 8.5% | \$113,815 | -3.2% |
| Medical Devices and Equipment | | | | |
| Establishments | 55 | -14.1% | 8,083 | 5.9% |
| Employment | 2,210 | 14.3% | 359,293 | 2.9% |
| Location Quotient | 1.98 | | n/a | |
| Direct-Effect Employment Multiplier | 2.35 | | | |
| Total Employment Impact | 5,205 | | | |
| Average Annual Wage | \$91,660 | 6.8% | \$84,746 | 6.5% |
| Research, Testing and Medical Laboratories | | | | |
| Establishments | 131 | 7.8% | 33,007 | 13.1% |
| Employment | 3,398 | -45.1% | 547,566 | 8.2% |
| Location Quotient | 2.00 | | n/a | |
| Direct-Effect Employment Multiplier | 2.38 | | | |
| Total Employment Impact | 8,086 | | | |
| Average Annual Wage | \$95,505 | -21.8% | \$106,942 | 5.5% |
| Total Bioscience Industry | | | | |
| Establishments | 495 | 14.5% | 85,702 | 7.7% |
| Employment | 7,861 | -25.6% | 1,743,639 | 4.4% |
| Location Quotient | 1.45 | | n/a | |
| Direct-Effect Employment Multiplier | 2.52 | | | |
| Total Employment Impact | 19,792 | | | |
| Average Annual Wage | \$104,841 | -14.4% | \$98,961 | 3.1% |
| Total Private Sector | | | | |
| Establishments | 31,087 | 5.8% | 9,243,034 | 3.4% |
| Employment | 375,924 | 3.8% | 120,884,570 | 4.2% |
| Average Annual Wage | \$53,640 | 0.7% | \$53,354 | 4.3% |

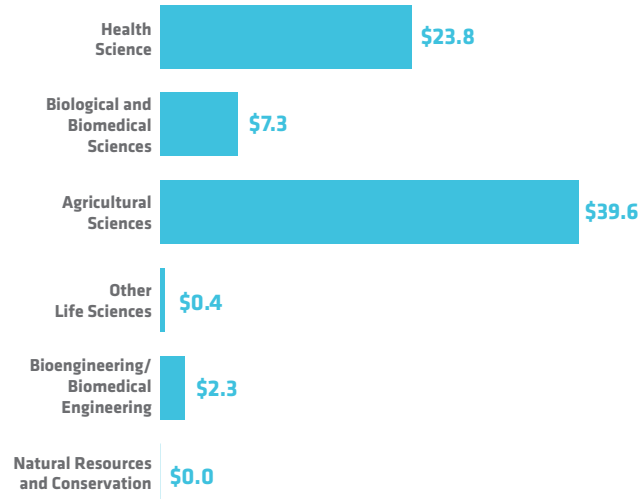
Note: U.S. employment metrics include Puerto Rico.

Bioscience Research in Delaware

Bioscience Academic R&D Expenditures

\$ Millions

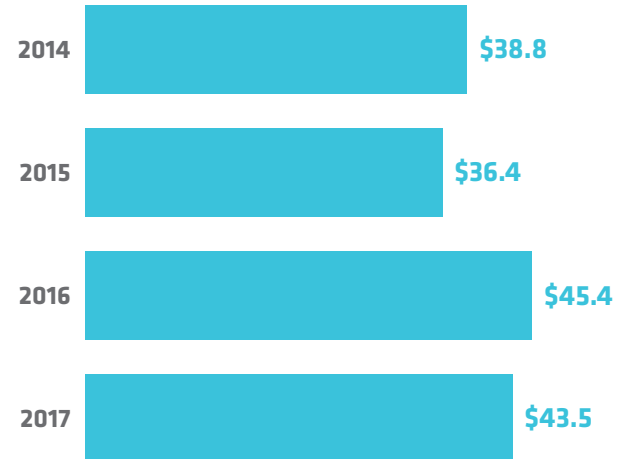
FY 2016



NIH Awards

\$ Millions

FY 2014-2017

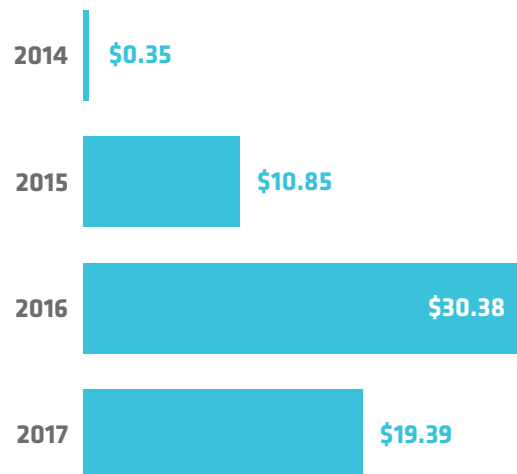


Bioscience Venture Capital in Delaware

Bioscience-Related Venture Capital Investments

\$ Millions

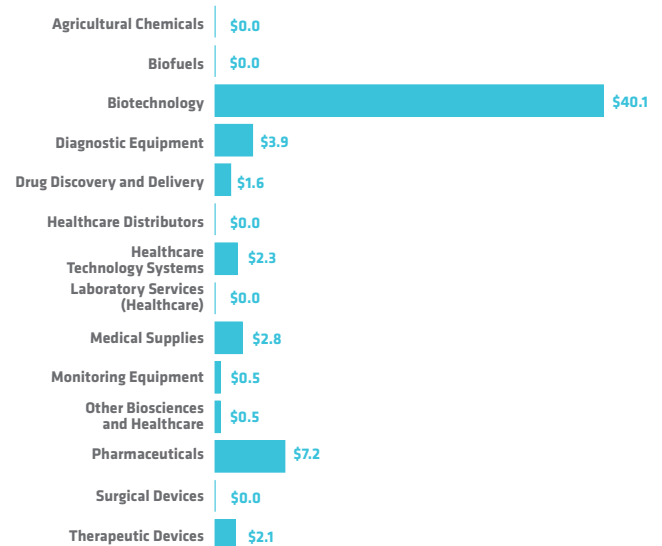
2014-2017



Bioscience-Related Venture Capital Investments by Segment

\$ Millions

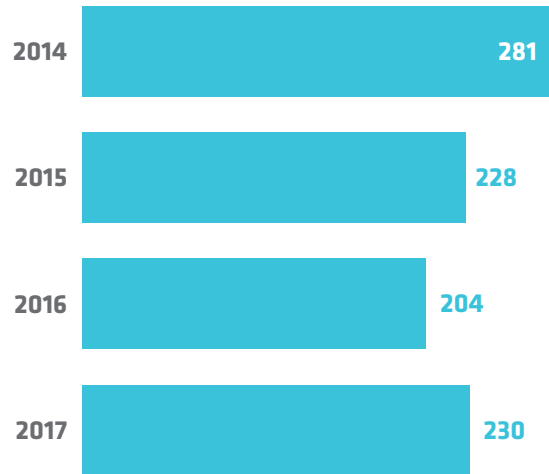
2014-2017



Bioscience Patents in Delaware

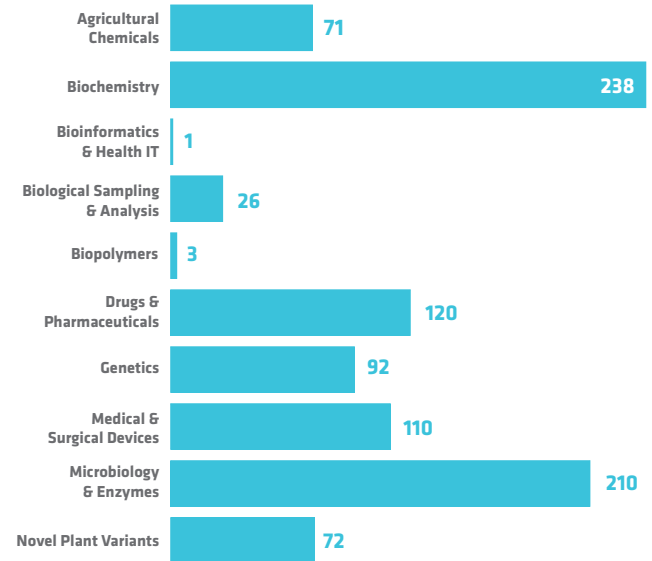
Bioscience-Related U.S. Patents

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.