



Louisiana grew its bioscience industry employment by 3 percent in the recent 2-year period and by 2016 employed 11,512 across 1,154 state establishments. Three of the industry's five major subsectors contributed to the recent job gains. Louisiana has a specialized employment concentration in agricultural feedstock and industrial biosciences (location quotient is 2.88). The state has increased its funding from NIH from 2014-15 with nearly \$142 million in awards in 2016-17. This funding helps to support, in part, the state's academic R&D activities in bioscience-related fields, which totaled \$415 million in 2016 across Louisiana's research universities.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

| Metric | Louisiana | United States | Quintile |
|--|-----------|---------------|----------|
| Bioscience Industry, 2016 | | | |
| Bioscience Industry Employment | 11,512 | 1,743,639 | IV |
| Bioscience Industry Location Quotient | 0.50 | n/a | V |
| Bioscience Industry Establishments | 1,154 | 85,702 | III |
| Academic Bioscience R&D Expenditures, FY 2016 | | | |
| Bioscience R&D (\$ thousands) | \$415,093 | \$41,972,205 | III |
| Bioscience Share of Total R&D | 66% | 62% | II |
| Bioscience R&D Per Capita | \$89 | \$130 | IV |
| NIH Funding, FY 2017 | | | |
| Funding (\$ thousands) | \$141,656 | \$26,150,485 | III |
| Funding Per Capita | \$30 | \$80 | IV |
| Bioscience Venture Capital Investments, 2014-17 (\$ millions) | \$9.28 | \$66,168.62 | V |
| Bioscience and Related Patents, 2014-17 | 367 | 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 | Louisiana | | United States | |
|--|-----------|------------------|---------------|------------------|
| | 2016 | 2014-2016 Change | 2016 | 2014-2016 Change |
| Agricultural Feedstock and Industrial Biosciences | | | | |
| Establishments | 29 | -29.3% | 1,709 | -3.2% |
| Employment | 2,590 | -6.7% | 68,027 | -1.2% |
| Location Quotient | 2.88 | | n/a | |
| Direct-Effect Employment Multiplier | 5.88 | | | |
| Total Employment Impact | 15,218 | | | |
| Average Annual Wage | \$109,534 | 3.7% | \$80,961 | 2.7% |
| Bioscience-Related Distribution | | | | |
| Establishments | 602 | 0.7% | 39,149 | 3.8% |
| Employment | 4,963 | 0.2% | 469,640 | 3.7% |
| Location Quotient | 0.80 | | n/a | |
| Direct-Effect Employment Multiplier | 2.12 | | | |
| Total Employment Impact | 10,499 | | | |
| Average Annual Wage | \$90,235 | 1.4% | \$93,677 | 2.7% |
| Drugs and Pharmaceuticals | | | | |
| Establishments | 26 | -7.1% | 3,754 | 13.7% |
| Employment | 475 | -10.0% | 299,113 | 2.0% |
| Location Quotient | 0.12 | | n/a | |
| Direct-Effect Employment Multiplier | 5.46 | | | |
| Total Employment Impact | 2,592 | | | |
| Average Annual Wage | \$61,852 | 2.7% | \$113,815 | -3.2% |
| Medical Devices and Equipment | | | | |
| Establishments | 70 | 6.1% | 8,083 | 5.9% |
| Employment | 295 | 28.5% | 359,293 | 2.9% |
| Location Quotient | 0.06 | | n/a | |
| Direct-Effect Employment Multiplier | 2.50 | | | |
| Total Employment Impact | 737 | | | |
| Average Annual Wage | \$69,651 | 3.6% | \$84,746 | 6.5% |
| Research, Testing and Medical Laboratories | | | | |
| Establishments | 426 | 18.1% | 33,007 | 13.1% |
| Employment | 3,189 | 18.4% | 547,566 | 8.2% |
| Location Quotient | 0.44 | | n/a | |
| Direct-Effect Employment Multiplier | 1.86 | | | |
| Total Employment Impact | 5,934 | | | |
| Average Annual Wage | \$49,900 | -1.6% | \$106,942 | 5.5% |
| Total Bioscience Industry | | | | |
| Establishments | 1,154 | 5.5% | 85,702 | 7.7% |
| Employment | 11,512 | 3.0% | 1,743,639 | 4.4% |
| Location Quotient | 0.50 | | n/a | |
| Direct-Effect Employment Multiplier | 3.04 | | | |
| Total Employment Impact | 34,981 | | | |
| Average Annual Wage | \$81,705 | -0.4% | \$98,961 | 3.1% |
| Total Private Sector | | | | |
| Establishments | 122,186 | 2.7% | 9,243,034 | 3.4% |
| Employment | 1,598,270 | -0.7% | 120,884,570 | 4.2% |
| Average Annual Wage | \$45,884 | 0.2% | \$53,354 | 4.3% |

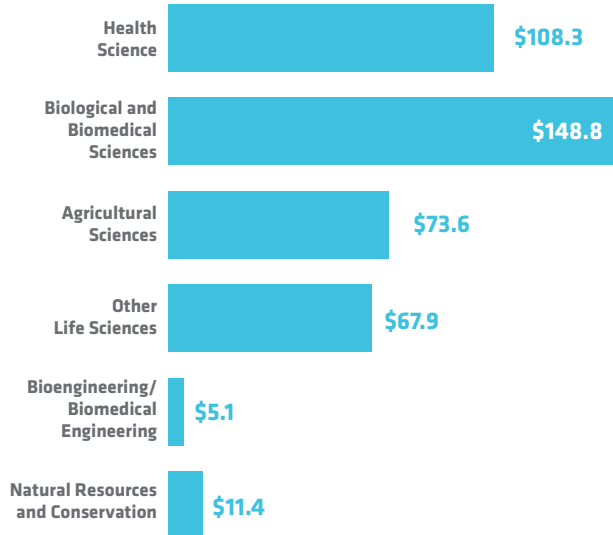
Note: U.S. employment metrics include Puerto Rico.

Bioscience Research in Louisiana

Bioscience Academic R&D Expenditures

\$ Millions

FY 2016



NIH Awards

\$ Millions

FY 2014-2017

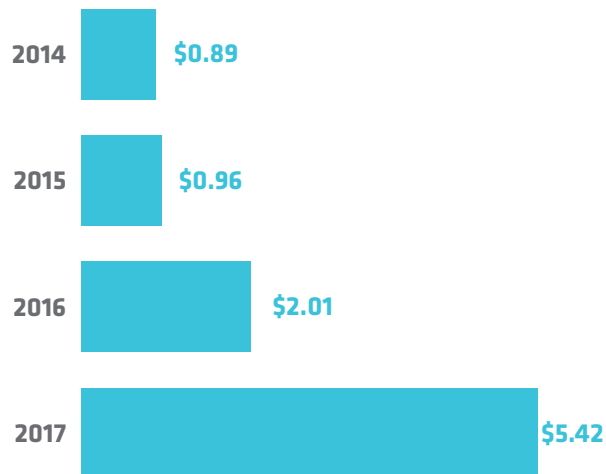


Bioscience Venture Capital in Louisiana

Bioscience-Related Venture Capital Investments

\$ Millions

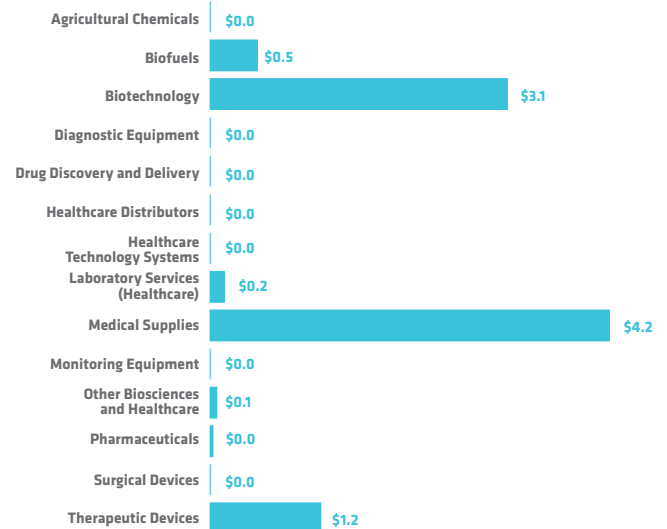
2014-2017



Bioscience-Related Venture Capital Investments by Segment

\$ Millions

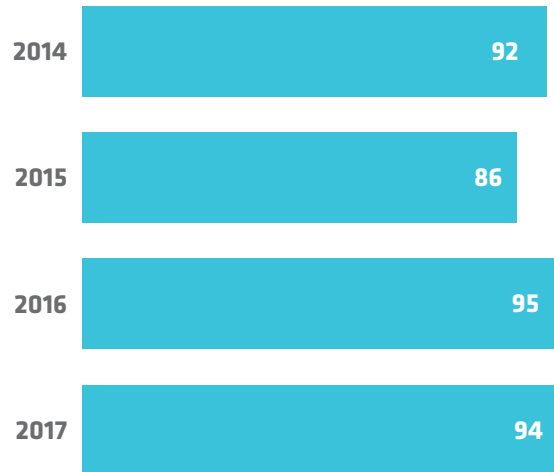
2014-2017



Bioscience Patents in Louisiana

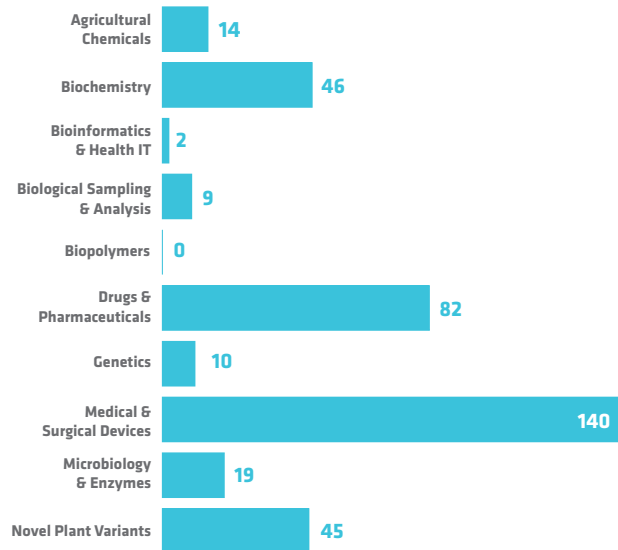
Bioscience-Related U.S. Patents

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.