



Mississippi's bioscience industry employed 6,227 in 2016 in 533 individual business establishments across the state. The state has a specialized employment concentration in the agricultural feedstock and industrial biosciences industry subsector where its location quotient measures 1.48. Despite a slight decline in overall industry employment from 2014 through 2016, three of Mississippi's industry subsectors had overall job gains, including its largest—bioscience-related distribution. State institutions have seen an increase in NIH funding awards for biomedical research, which reached more than \$53 million in 2016 and 2017. Bioscience-related patent activity has also risen among state inventors.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

| Metric | Mississippi | United States | Quintile |
|--|-------------|---------------|----------|
| Bioscience Industry, 2016 | | | |
| Bioscience Industry Employment | 6,227 | 1,743,639 | IV |
| Bioscience Industry Location Quotient | 0.49 | n/a | V |
| Bioscience Industry Establishments | 533 | 85,702 | IV |
| Academic Bioscience R&D Expenditures, FY 2016 | | | |
| Bioscience R&D (\$ thousands) | \$207,140 | \$41,972,205 | IV |
| Bioscience Share of Total R&D | 50% | 62% | IV |
| Bioscience R&D Per Capita | \$69 | \$130 | IV |
| NIH Funding, FY 2017 | | | |
| Funding (\$ thousands) | \$53,223 | \$26,150,485 | IV |
| Funding Per Capita | \$18 | \$80 | V |
| Bioscience Venture Capital Investments, 2014-17 (\$ millions) | \$0.77 | \$66,168.62 | V |
| Bioscience and Related Patents, 2014-17 | 406 | 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 | Mississippi | | United States | |
|--|-------------|------------------|---------------|------------------|
| | 2016 | 2014-2016 Change | 2016 | 2014-2016 Change |
| Agricultural Feedstock and Industrial Biosciences | | | | |
| Establishments | 11 | -35.3% | 1,709 | -3.2% |
| Employment | 742 | -26.1% | 68,027 | -1.2% |
| Location Quotient | 1.48 | | n/a | |
| Direct-Effect Employment Multiplier | 5.81 | | | |
| Total Employment Impact | 4,307 | | | |
| Average Annual Wage | \$65,398 | 1.7% | \$80,961 | 2.7% |
| Bioscience-Related Distribution | | | | |
| Establishments | 247 | -2.8% | 39,149 | 3.8% |
| Employment | 2,825 | 4.1% | 469,640 | 3.7% |
| Location Quotient | 0.82 | | n/a | |
| Direct-Effect Employment Multiplier | 1.94 | | | |
| Total Employment Impact | 5,487 | | | |
| Average Annual Wage | \$69,765 | -1.2% | \$93,677 | 2.7% |
| Drugs and Pharmaceuticals | | | | |
| Establishments | 15 | 7.1% | 3,754 | 13.7% |
| Employment | 1,065 | 11.5% | 299,113 | 2.0% |
| Location Quotient | 0.48 | | n/a | |
| Direct-Effect Employment Multiplier | 4.50 | | | |
| Total Employment Impact | 4,791 | | | |
| Average Annual Wage | \$60,260 | 11.7% | \$113,815 | -3.2% |
| Medical Devices and Equipment | | | | |
| Establishments | 24 | -7.7% | 8,083 | 5.9% |
| Employment | 565 | -21.6% | 359,293 | 2.9% |
| Location Quotient | 0.21 | | n/a | |
| Direct-Effect Employment Multiplier | 2.16 | | | |
| Total Employment Impact | 1,218 | | | |
| Average Annual Wage | \$43,216 | 6.1% | \$84,746 | 6.5% |
| Research, Testing and Medical Laboratories | | | | |
| Establishments | 235 | 37.9% | 33,007 | 13.1% |
| Employment | 1,030 | 16.9% | 547,566 | 8.2% |
| Location Quotient | 0.26 | | n/a | |
| Direct-Effect Employment Multiplier | 1.71 | | | |
| Total Employment Impact | 1,760 | | | |
| Average Annual Wage | \$48,723 | -4.3% | \$106,942 | 5.5% |
| Total Bioscience Industry | | | | |
| Establishments | 533 | 10.5% | 85,702 | 7.7% |
| Employment | 6,227 | -0.8% | 1,743,639 | 4.4% |
| Location Quotient | 0.49 | | n/a | |
| Direct-Effect Employment Multiplier | 2.82 | | | |
| Total Employment Impact | 17,562 | | | |
| Average Annual Wage | \$61,729 | 1.4% | \$98,961 | 3.1% |
| Total Private Sector | | | | |
| Establishments | 69,484 | 3.2% | 9,243,034 | 3.4% |
| Employment | 888,913 | 2.7% | 120,884,570 | 4.2% |
| Average Annual Wage | \$37,282 | 2.1% | \$53,354 | 4.3% |

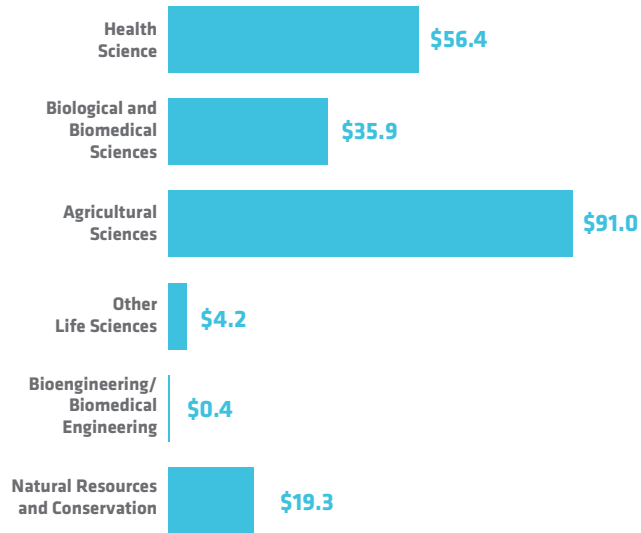
Note: U.S. employment metrics include Puerto Rico.

Bioscience Research in Mississippi

Bioscience Academic R&D Expenditures

\$ Millions

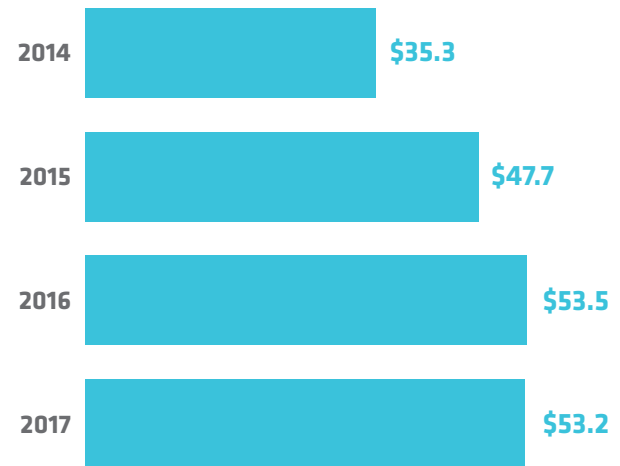
FY 2016



NIH Awards

\$ Millions

FY 2014-2017

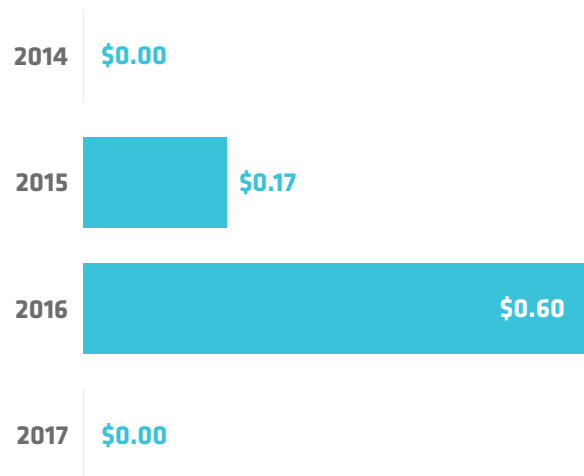


Bioscience Venture Capital in Mississippi

Bioscience-Related Venture Capital Investments

\$ Millions

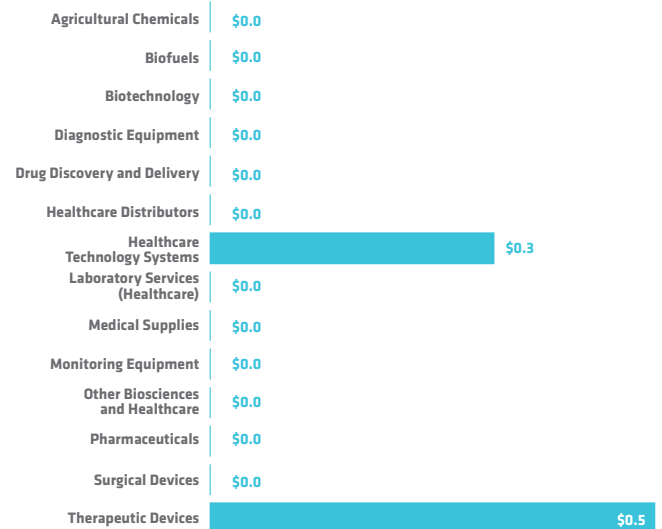
2014-2017



Bioscience-Related Venture Capital Investments by Segment

\$ Millions

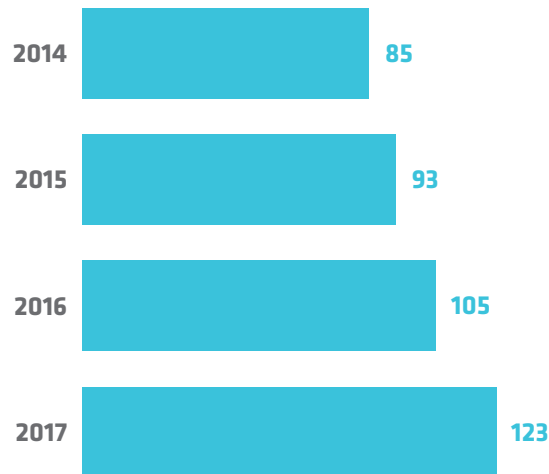
2014-2017



Bioscience Patents in Mississippi

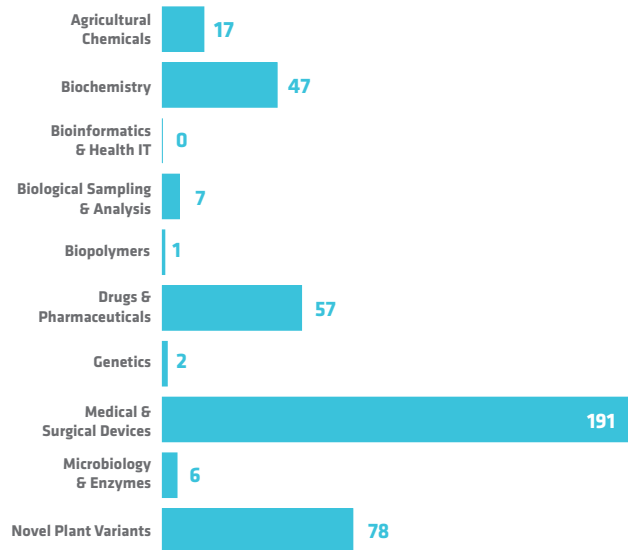
Bioscience-Related U.S. Patents

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.