



TEconomy/BIO

**The Value of Bioscience Innovation in Growing Jobs and Improving Quality of Life 2016**

**Mississippi**

Mississippi's bioscience industry is growing and reached 6,425 jobs in 2014 that span 458 business establishments. The state has a specialization in agricultural feedstock and chemicals with a 78 percent greater employment concentration relative to the national average (location quotient of 1.78). Mississippi bioscience companies have increased employment by 5.2 percent since 2012 with job gains coming from all five major industry subsectors. Average annual wages in Mississippi's bioscience industry were nearly \$61,000 in 2014, 67 percent greater than the overall average for the private sector. The state's 358 bioscience patents issued since 2012 were largely in medical and surgical devices with additional concentrations in agricultural biosciences, drugs and pharmaceuticals, and biochemistry.

**Bioscience Performance Metrics**

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Mississippi	United States	Quintile
<b>Bioscience Industry, 2014</b>			
Bioscience Industry Employment	6,425	1,655,680	IV
Bioscience Industry Location Quotient	0.52	n/a	V
Bioscience Industry Establishments	458	77,283	IV
<b>Academic Bioscience R&amp;D Expenditures, FY 2014</b>			
Bioscience R&D (\$ thousands)	\$198,560	\$38,873,926	IV
Bioscience Share of Total R&D	52%	61%	IV
Bioscience R&D Per Capita	\$66	\$122	IV
<b>NIH Funding, FY 2015</b>			
Funding (\$ thousands)	\$47,744	\$22,869,746	IV
Funding Per Capita	\$16	\$71	V
<b>Bioscience Venture Capital Investments, 2012–15 (\$ millions)</b>	\$3.6	\$48,742.10	V
<b>Bioscience and Related Patents, 2012–15</b>	358	101,026	IV

State ranking figures for bioscience performance metrics are calculated as quintiles, where:

top quintile – I II III IV V – bottom quintile

For source notes, see end of State Profile.



**Mississippi**

Industry Subsector	Mississippi		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
<b>Agricultural Feedstock and Chemicals</b>				
Establishments	18	12.6%	1,811	2.2%
Employment	1,028	1.1%	77,545	1.5%
Location Quotient	1.78		n/a	
Direct-Effect Employment Multiplier	17.8		18.4	
Total Employment Impact	18,305		1,432,125	
Average Annual Wage	\$63,570	18.2%	\$80,640	6.3%
<b>Bioscience-Related Distribution</b>				
Establishments	264	-6.5%	37,833	2.8%
Employment	2,828	1.5%	452,325	2.3%
Location Quotient	0.84		n/a	
Direct-Effect Employment Multiplier	2.7		3.0	
Total Employment Impact	7,578		1,358,820	
Average Annual Wage	\$70,612	3.7%	\$90,458	6.2%
<b>Drugs and Pharmaceuticals</b>				
Establishments	14	-6.7%	3,301	8.0%
Employment	955	4.5%	293,353	3.2%
Location Quotient	0.44		n/a	
Direct-Effect Employment Multiplier	9.8		11.0	
Total Employment Impact	9,371		3,242,627	
Average Annual Wage	\$53,951	6.3%	\$117,524	10.3%
<b>Medical Devices and Equipment</b>				
Establishments	26	4.0%	7,636	5.5%
Employment	721	35.1%	349,045	-0.1%
Location Quotient	0.28		n/a	
Direct-Effect Employment Multiplier	3.9		4.6	
Total Employment Impact	2,791		1,596,802	
Average Annual Wage	\$40,724	5.0%	\$79,537	5.1%
<b>Research, Testing, and Medical Laboratories</b>				
Establishments	136	21.0%	26,702	10.2%
Employment	893	4.3%	483,412	3.4%
Location Quotient	0.25		n/a	
Direct-Effect Employment Multiplier	2.5		3.1	
Total Employment Impact	2,272		1,554,719	
Average Annual Wage	\$50,918	0.4%	\$97,485	6.8%
<b>Total Bioscience Industry</b>				
Establishments	458	1.6%	77,283	5.7%
Employment	6,425	5.2%	1,655,680	2.2%
Location Quotient	0.52		n/a	
Direct-Effect Employment Multiplier	5.4		5.5	
Total Employment Impact	34,603		9,185,094	
Average Annual Wage	\$60,919	4.8%	\$94,543	7.2%
<b>Total Private Sector</b>				
Establishments	67,338	3.8%	8,937,672	2.7%
Employment	865,716	2.2%	116,018,300	4.4%
Average Annual Wage	\$36,503	3.5%	\$51,148	4.3%

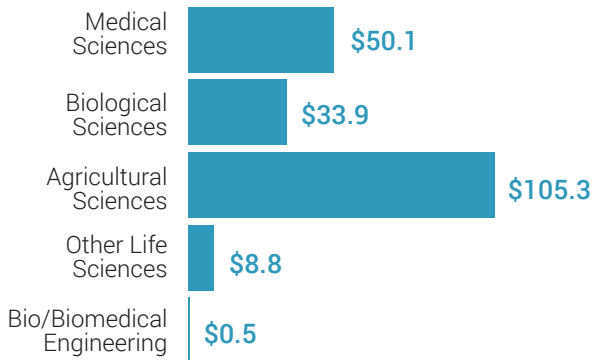
Note: U.S. employment metrics include Puerto Rico.



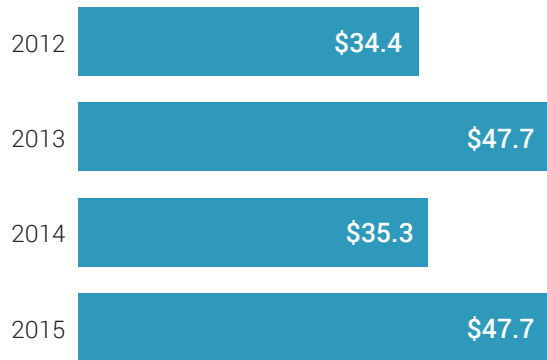
# Mississippi

## Bioscience Research in Mississippi

Bioscience Academic R&D Expenditures  
\$ Millions  
FY 2014



NIH Awards  
\$ Millions  
FY 2012-2015

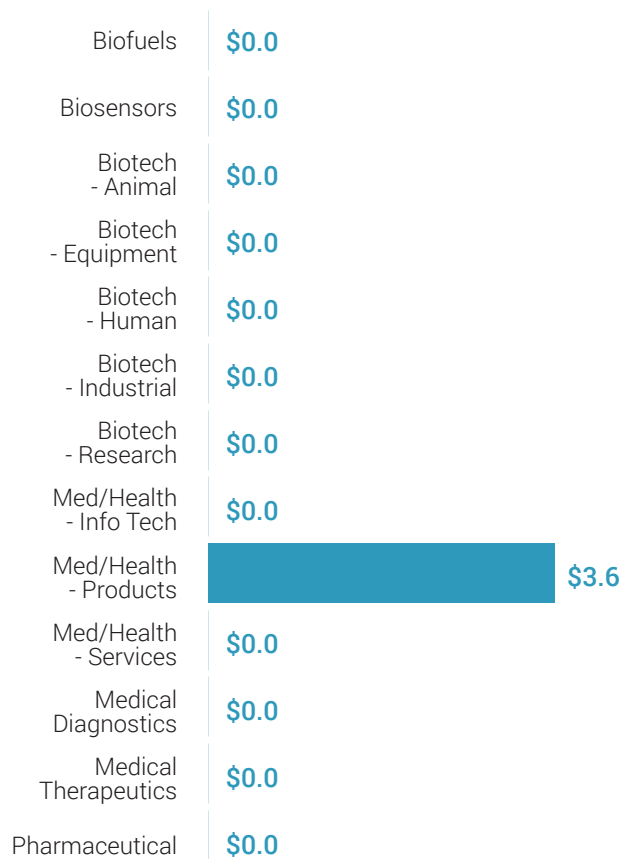


## Bioscience Venture Capital in Mississippi

Bioscience-Related Venture  
Capital Investments  
\$ Millions  
2012-2015



Bioscience-Related Venture  
Capital Investments by Segment  
\$ Millions  
2012-2015



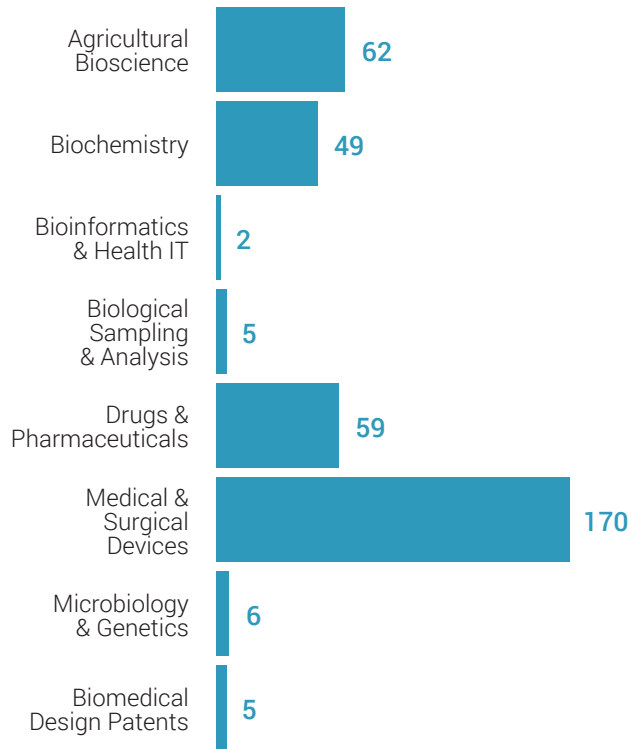


Bioscience Patents in Mississippi

Bioscience-Related U.S. Patents 2012-2015



Bioscience-Related U.S. Patents by Segment 2012-2015



Source Notes

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

**Employment Multipliers:** IMPLAN Group, LLC 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:** Thomson Reuters Thomson ONE venture capital database.

**Patents:** U.S. Patent & Trademark Office data from Thomson Reuters Thomson Innovation patent analysis database.

For a more detailed discussion of the data and methodology used, please see the Appendix to the full national report.

