



TEconomy/BIO

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

Alabama

Bioscience industry employment in Alabama totaled nearly 14,000 in 2014 across 808 state business establishments. The state has a specialized employment concentration in the agricultural feedstock and chemicals subsector with 62 percent more jobs in the subsector relative to its private sector compared with the national average (location quotient of 1.62). Alabama has a strong focus in bioscience-related academic R&D expenditures relative to other fields with 70 percent of R&D in the life sciences compared with 61 percent, on average, for the U.S. NIH funding to Alabama institutions has increased since 2012 and totaled \$280 million in 2015. Since 2012, state bioscience companies have received \$101 million in venture capital funding with investments focused in human biotechnology and health information technology.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Alabama	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	13,671	1,655,680	III
Bioscience Industry Location Quotient	0.64	n/a	IV
Bioscience Industry Establishments	808	77,283	IV
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$551,914	\$38,873,926	III
Bioscience Share of Total R&D	70%	61%	I
Bioscience R&D Per Capita	\$114	\$122	III
NIH Funding, FY 2015			
Funding (\$ thousands)	\$280,132	\$22,869,746	III
Funding Per Capita	\$58	\$71	III
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$101.4	\$48,742.1	III
Bioscience and Related Patents, 2012–15	621	101,026	III

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.



Alabama

Industry Subsector	Alabama		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	28	-0.4%	1,811	2.2%
Employment	1,630	-1.3%	77,545	1.5%
Location Quotient	1.62		n/a	
Direct-Effect Employment Multiplier	16.2		18.4	
Total Employment Impact	26,411		1,432,125	
Average Annual Wage	\$77,662	5.5%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	316	1.9%	37,833	2.8%
Employment	4,330	-0.5%	452,325	2.3%
Location Quotient	0.74		n/a	
Direct-Effect Employment Multiplier	2.8		3.0	
Total Employment Impact	12,203		1,358,820	
Average Annual Wage	\$74,870	3.5%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	23	21.1%	3,301	8.0%
Employment	1,622	26.3%	293,353	3.2%
Location Quotient	0.43		n/a	
Direct-Effect Employment Multiplier	9.5		11.0	
Total Employment Impact	15,445		3,242,627	
Average Annual Wage	\$59,420	6.2%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	59	9.3%	7,636	5.5%
Employment	2,108	26.8%	349,045	-0.1%
Location Quotient	0.47		n/a	
Direct-Effect Employment Multiplier	4.0		4.6	
Total Employment Impact	8,493		1,596,802	
Average Annual Wage	\$46,838	-0.2%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	382	52.0%	26,702	10.2%
Employment	3,981	3.6%	483,412	3.4%
Location Quotient	0.64		n/a	
Direct-Effect Employment Multiplier	2.8		3.1	
Total Employment Impact	11,106		1,554,719	
Average Annual Wage	\$65,918	-0.5%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	808	22.0%	77,283	5.7%
Employment	13,671	6.9%	1,655,680	2.2%
Location Quotient	0.64		n/a	
Direct-Effect Employment Multiplier	5.0		5.5	
Total Employment Impact	67,764		9,185,094	
Average Annual Wage	\$66,441	1.1%	\$94,543	7.2%
Total Private Sector				
Establishments	110,948	1.2%	8,937,672	2.7%
Employment	1,504,508	2.6%	116,018,300	4.4%
Average Annual Wage	\$42,351	3.1%	\$51,148	4.3%

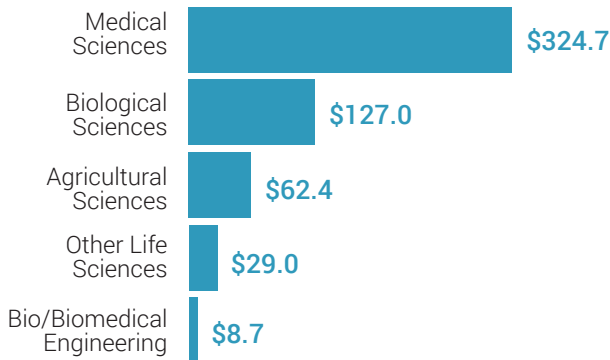
Note: U.S. employment metrics include Puerto Rico.



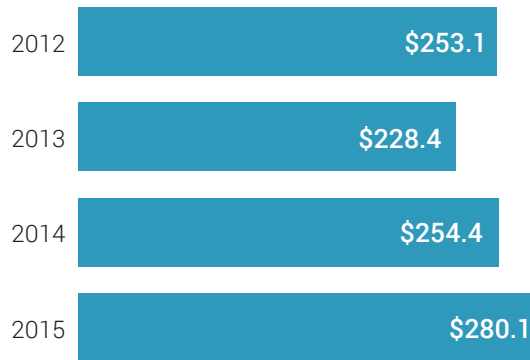
Alabama

Bioscience Research in Alabama

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014

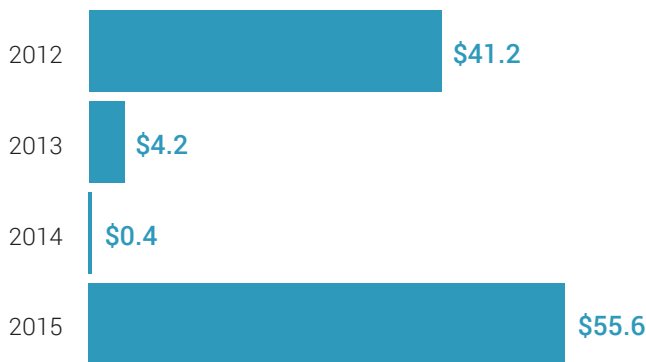


NIH Awards
\$ Millions
FY 2012-2015

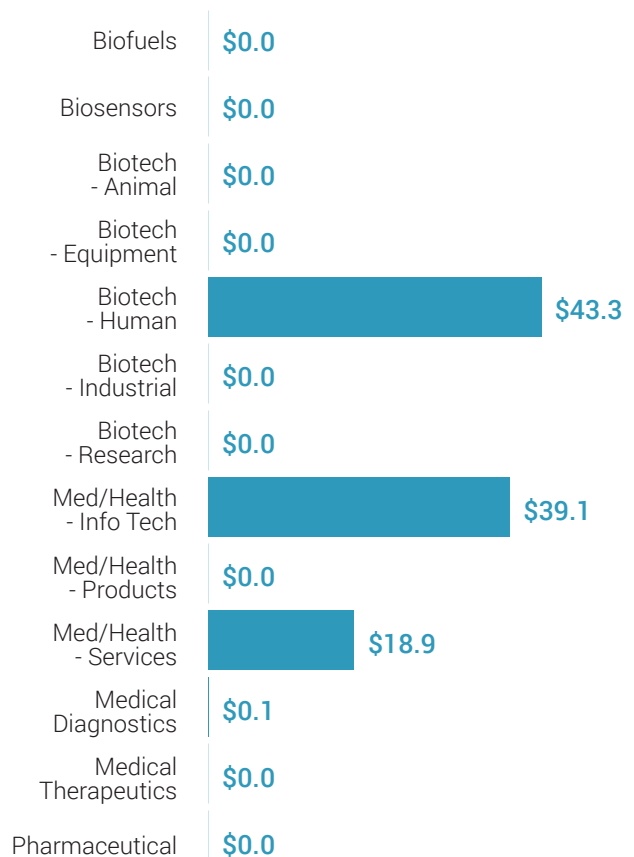


Bioscience Venture Capital in Alabama

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



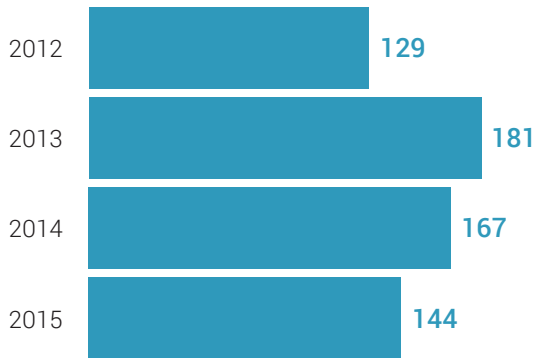
Bioscience-Related Venture Capital Investments by Segment
\$ Millions
2012-2015



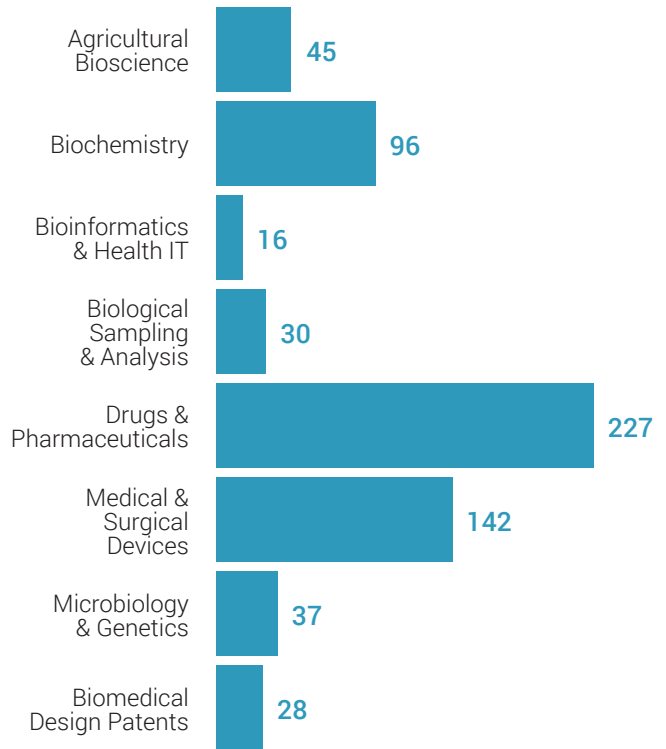


Bioscience Patents in Alabama

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.

