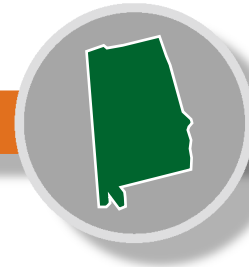


## Alabama



Bioscience industry employment in Alabama totaled nearly 13,000 in 2012 across 662 state business establishments. The state has a specialized employment concentration in the agricultural feedstock and chemicals subsector with 64 percent more jobs in the subsector relative to its private sector compared with the national average (location quotient of 1.64). Alabama has a strong focus in bioscience-related academic R&D expenditures relative to other fields with 71 percent of R&D in the life sciences compared with 61 percent, on average, for the U.S. Since 2009, state bioscience companies have received \$93.9 million in venture capital funding with the vast majority focused in health IT/software and medical diagnostics.

### Bioscience Performance Metrics

#### Summary of State Performance in Selected Bioscience-related Metrics

Metric	Alabama	United States	Quintile
<b>Bioscience Industry, 2012</b>			
Bioscience Industry Employment	12,794	1,619,746	III
Bioscience Industry Location Quotient	0.60	n/a	IV
Bioscience Industry Establishments	662	73,088	IV
<b>Academic Bioscience R&amp;D Expenditures, FY 2012</b>			
Bioscience R&D (\$ thousands)	\$570,789	\$38,139,876	III
Bioscience Share of Total R&D	71%	61%	I
Bioscience R&D Per Capita	\$118	\$119	II
<b>NIH Funding, FY 2013</b>			
Funding (\$ thousands)	\$228,362	\$22,293,255	III
Funding Per Capita	\$47	\$70	III
<b>Bioscience Venture Capital Investments, 2009–13 (\$ millions)</b>	\$93.9	\$49,401.7	III
<b>Bioscience and Related Patents, 2009–13</b>	623	100,238	III

State ranking figures for bioscience performance metrics are calculated as quintiles, where I = top quintile, III = middle quintile, and V = bottom quintile.

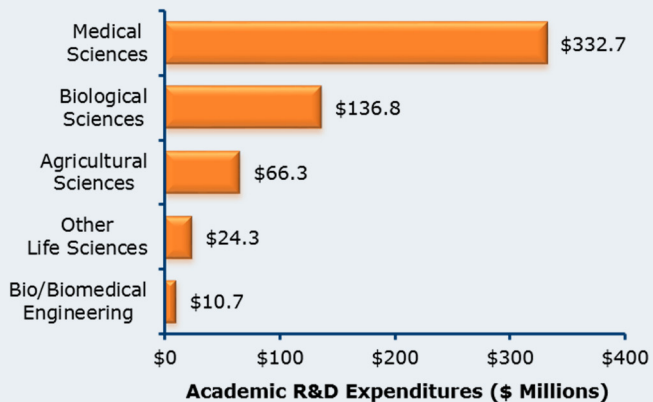
For source notes, see end of State Profile.

Industry Subsector	Alabama		United States	
	2012	2007–2012 Change	2012	2007–2012 Change
<b>Agricultural Feedstock &amp; Chemicals</b>				
Establishments	28	0.0%	1,772	5.2%
Employment	1,651	-15.8%	76,404	-1.0%
Location Quotient	1.64		n/a	
Direct-Effect Employment Multiplier	13.2		18.1	
Total Employment Impact	21,780		1,382,637	
Average Annual Wage	\$73,583	10.1%	\$75,828	14.2%
<b>Bioscience-Related Distribution</b>				
Establishments	310	-27.7%	36,793	1.4%
Employment	4,353	-21.6%	442,016	-3.9%
Location Quotient	0.75		n/a	
Direct-Effect Employment Multiplier	2.5		2.7	
Total Employment Impact	10,724		1,199,015	
Average Annual Wage	\$72,338	6.4%	\$85,188	11.5%
<b>Drugs and Pharmaceuticals</b>				
Establishments	19	18.8%	3,057	12.0%
Employment	1,284	82.1%	284,331	-10.9%
Location Quotient	0.34		n/a	
Direct-Effect Employment Multiplier	6.6		9.9	
Total Employment Impact	8,461		2,673,265	
Average Annual Wage	\$55,958	17.7%	\$106,576	13.9%
<b>Medical Devices and Equipment</b>				
Establishments	54	10.2%	7,235	12.0%
Employment	1,662	-20.9%	349,432	1.4%
Location Quotient	0.36		n/a	
Direct-Effect Employment Multiplier	2.9		3.9	
Total Employment Impact	4,751		1,318,459	
Average Annual Wage	\$46,939	11.0%	\$75,695	10.7%
<b>Research, Testing, and Medical Laboratories</b>				
Establishments	251	41.8%	24,231	31.0%
Employment	3,844	24.9%	467,563	9.7%
Location Quotient	0.62		n/a	
Direct-Effect Employment Multiplier	2.4		2.7	
Total Employment Impact	9,356		1,284,196	
Average Annual Wage	\$66,255	12.1%	\$91,248	15.9%
<b>Total Bioscience Industry</b>				
Establishments	662	-5.3%	73,088	11.4%
Employment	12,794	-4.5%	1,619,746	-0.4%
Location Quotient	0.60		n/a	
Direct-Effect Employment Multiplier	4.0		4.9	
Total Employment Impact	51,705		7,857,572	
Average Annual Wage	\$65,727	8.3%	\$88,202	12.8%
<b>Total Private Sector</b>				
Establishments	109,625	-3.4%	8,699,564	-0.5%
Employment	1,466,977	-7.9%	111,137,206	-3.1%
Average Annual Wage	\$41,074	12.1%	\$49,130	11.1%

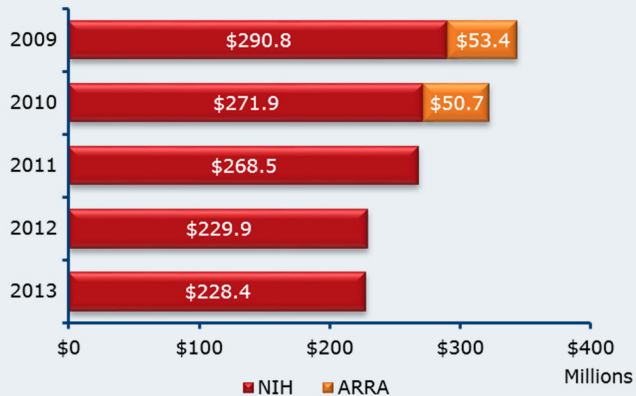
Note: U.S. employment metrics include Puerto Rico. Estimates of total impacts do not include Puerto Rico.

## Bioscience Research in Alabama

### Bioscience Academic R&D Expenditures, FY 2012



### NIH Awards, 2009–2013

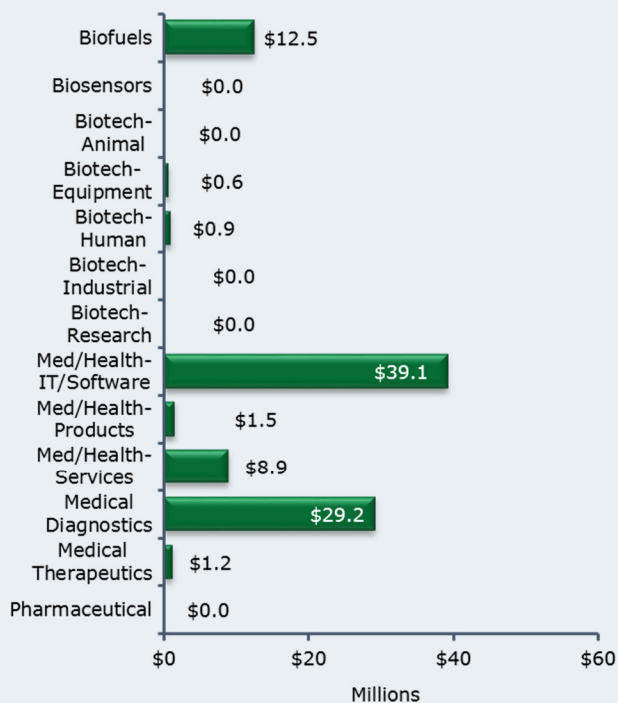


## Bioscience Venture Capital in Alabama

### Bioscience-Related Venture Capital Investments, 2009–2013

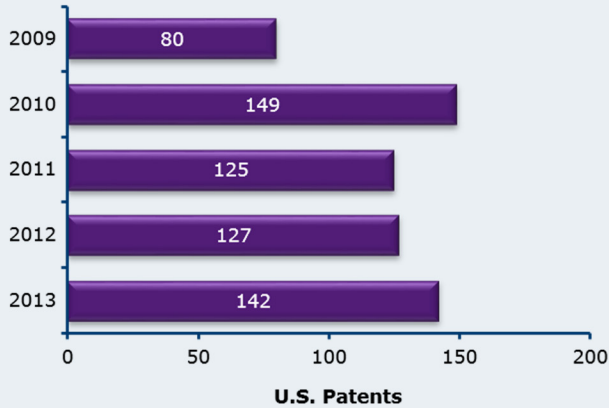


### Bioscience-Related Venture Capital Investments by Segment, 2009–2013

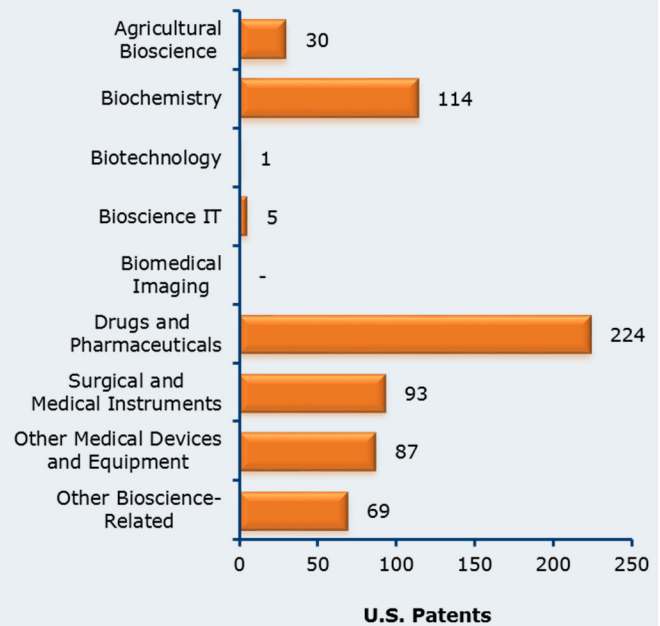


## Bioscience Patents in Alabama

### Bioscience-Related Patents, 2009–2013



### Bioscience-Related Patents by Segment, 2009–2013



## 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), and NIH-managed funding for FY 2009 and FY 2010 from the American Recovery and Reinvestment Act (ARRA) website.

**Venture Capital:** Thomson Reuters Thomson ONE venture capital database.

**Patents:** U.S. Patent & Trademark Office data from Thomson Reuters Delphion Patent Analysis Database.

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