



# Alabama

The U.S. Bioscience Industry: Fostering Innovation and Driving America's Economy Forward

Alabama's bioscience industry employed 14,372 in 2021 across 1,264 individual state business establishments. The industry has grown its employment base by 11.5 percent since 2018, keeping up with the strong pace of national industry growth. The state has a specialized employment concentration in agricultural feedstock and industrial biosciences (location quotient is 1.76). Average wages in the biosciences, at nearly \$78,000 per year, are well above those for the overall private sector (\$53,683). State universities are very active in bioscience-related R&D, with expenditures totaling \$726 million in 2020. This level of activity is equivalent to 65 percent of all academic R&D, a concentration that is above the national average. NIH awards to Alabama institutions have been increasing, reaching \$377 million in FY 2021.

## Bioscience Performance Metrics

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

Metric	Alabama	United States	Quintile
<b>Bioscience Industry, 2021</b>			
Bioscience Industry Employment	14,372	2,135,704	III
Bioscience Industry Location Quotient	0.52	n/a	V
Bioscience Industry Establishments	1,264	127,389	IV
<b>Academic Bioscience R&amp;D Expenditures, FY 2020</b>			
Bioscience R&D (\$ thousands)	\$726,052	\$51,108,737	III
Bioscience Share of Total R&D	65%	63%	III
Bioscience R&D Per Capita	\$144	\$154	III
<b>NIH Funding, FY 2021</b>			
Funding (\$ thousands)	\$377,021	\$34,751,109	III
Funding Per Capita	\$75	\$105	III
<b>Bioscience Venture Capital Investments, 2018-21 (\$ millions)</b>			
	\$120.49	\$197,674.54	IV
<b>Bioscience-Related Patents, 2018-21</b>			
	567	153,072	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.

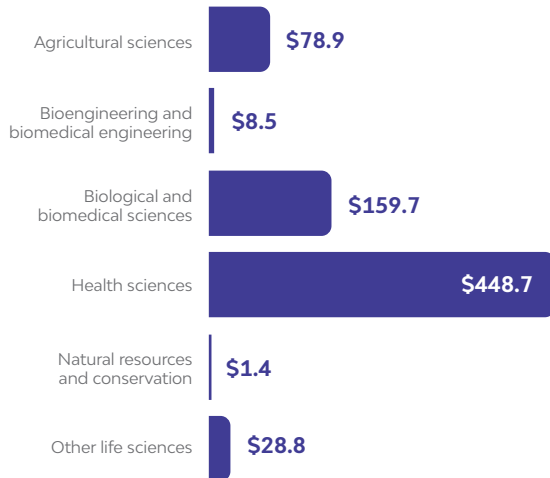
Industry Subsector		Alabama		United States	
		2021	2018–2021 Change	2021	2018–2021 Change
Agricultural Feedstock and Industrial Biosciences	Establishments	29	4.5%	1,948	10.0%
	Employment	1,586	14.5%	69,573	1.9%
	<i>Location Quotient</i>	1.76		n/a	
	Average Annual Wage	\$84,867	7.8%	\$91,989	13.1%
Bioscience-Related Distribution	Establishments	363	17.9%	62,697	14.7%
	Employment	3,875	2.2%	602,589	6.6%
	<i>Location Quotient</i>	0.50		n/a	
	Average Annual Wage	\$86,698	17.4%	\$121,606	15.0%
Medical Devices and Equipment	Establishments	109	27.1%	10,268	17.4%
	Employment	2,653	18.6%	398,847	5.5%
	<i>Location Quotient</i>	0.51		n/a	
	Average Annual Wage	\$60,639	17.2%	\$98,481	8.7%
Pharmaceuticals	Establishments	77	34.6%	5,973	34.7%
	Employment	1,343	27.7%	344,839	11.9%
	<i>Location Quotient</i>	0.30		n/a	
	Average Annual Wage	\$84,535	-16.3%	\$126,153	10.3%
Research, Testing, and Medical Laboratories	Establishments	686	17.2%	46,503	34.5%
	Employment	4,915	11.2%	719,856	19.3%
	<i>Location Quotient</i>	0.53		n/a	
	Average Annual Wage	\$75,513	4.1%	\$147,396	22.0%
Total Bioscience Industry	Establishments	1,264	18.8%	127,389	22.3%
	Employment	14,372	11.5%	2,135,704	11.0%
	<i>Location Quotient</i>	0.52		n/a	
	Average Annual Wage	\$77,658	7.4%	\$125,750	16.4%
Total Private Sector	Establishments	132,764	9.7%	10,665,643	9.3%
	Employment	1,601,689	0.2%	123,376,557	-1.5%
	<i>Location Quotient</i>	1.00		n/a	
	Average Annual Wage	\$53,683	15.3%	\$67,826	18.9%

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

## Bioscience Research in Alabama

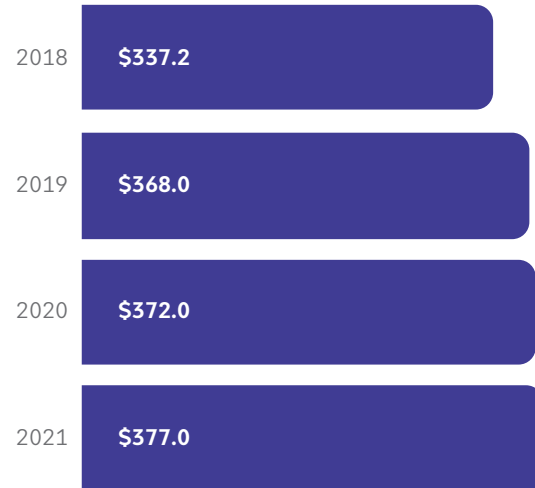
### Bioscience Academic R&D Expenditures

\$ Millions, FY 2020



### NIH Awards

\$ Millions, FY 2018-2021



## Bioscience Venture Capital in Alabama

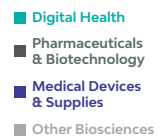
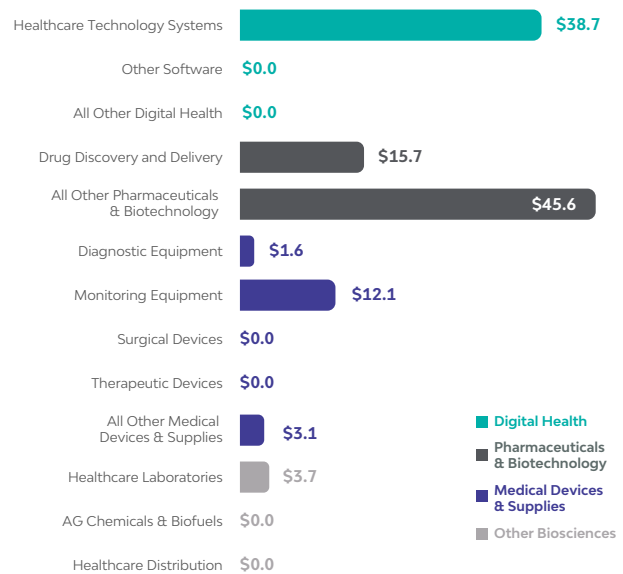
### Bioscience-Related Venture Capital Investments

\$ Millions, 2018-2021



### Bioscience-Related Venture Capital Investments by Segment

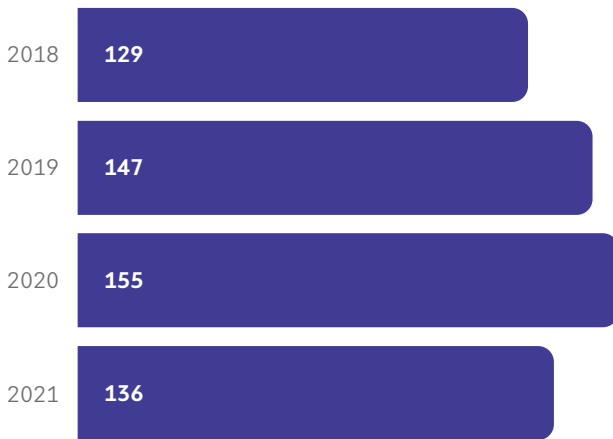
\$ Millions, 2018-2021



## Bioscience Patents in Alabama

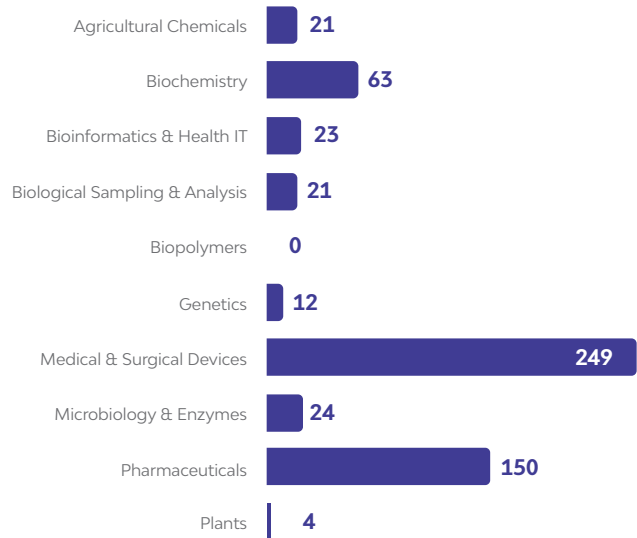
### Bioscience-Related U.S. Patents

2018-2021



### Bioscience-Related U.S. Patents by Segment

2018-2021



## Source Notes

**Employment, Establishments and Wages:** U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced by Lightcast (Datarun 2022.3).

**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.*

