

ALABAMA

Alabama has an employment specialization in the agricultural feedstock and chemicals subsector (location quotient of 1.92). Academic research expenditures in the biosciences totaled \$433 million in 2006, heavily weighted to medical sciences (\$245 million) and accounting for a higher percentage of total research expenditures than the national average. Over the past 6 years, the largest share of the State's \$123 million in venture capital investments was made in the medical/health information technology sector. With 3,274 bioscience patents over the same period, Alabama ranked 10th among all states. The patents were concentrated in surgical/medical instruments, biochemistry, and drugs and pharmaceuticals.

Major Industry Developments and Recent Successes

- **BioCryst** Pharmaceuticals Inc. was awarded \$102.6 million by the U.S. Department of Health and Human Services to develop a drug for the treatment of seasonal and life-threatening influenza.
- **UAB** has become one of only six Diabetes and Research Training Centers in the country designated by the National Institutes of Health.

Recent State Initiatives

Alabama continues to build its infrastructure to support bioscience development. The 340,000-square-foot **Shelby Interdisciplinary Biomedical Research Building** at the University of Alabama at Birmingham (UAB) opened in 2006. State government provided \$50 million in 2007 and has committed to providing \$10 million a year for the UAB Comprehensive Cancer Center until the Center meets its goal of \$125 million.

The **HudsonAlpha Institute for Biotechnology**, founded in 2005 with \$50 million in state funding, opened its 270,000-square-foot building, which will house 900 employees, in 2007. The Institute, which is located in Huntsville, conducts research aimed at developing and using biotechnology for personalized medicine while creating economic growth and encouraging Alabama students to study science. The Institute recently established a new **Genomic Technology Center for Public Health and Food Safety**. Its Associates Wing houses 12 start-up bioscience companies.

Innovation Depot, a business incubation facility that focuses on emerging biotechnology/life science, information technology, and service businesses, opened in 2007. Innovation Depot operates in partnership with UAB.

Pending Proposals

A bill is pending in the Alabama legislature to create an Alabama Venture Capital Fund and an Alabama Capital Investment Authority, which would oversee private investments that would be funneled to other venture capital funds already operating the state.

For additional information on Alabama's bioscience policies and programs, please see www.adeca.alabama.gov, www.ado.alabama.gov, and www.bioalabama.com.

Bioscience Industry Base, 2006

Industry Subsector	Alabama		United States	
	2006	2001-06 Change	2006	2001-06 Change
Agricultural Feedstock & Chemicals				
Establishments	40	-1.7%	2,183	3.8%
Employment	2,824	-30.0%	105,846	-6.1%
Location Quotient	1.92		n.a.	
Direct-Effect Employment Multiplier	6.46		11.22	
Total Employment Impact	18,252		1,214,709	
Average Annual Wage	\$68,537		\$67,870	
Drugs & Pharmaceuticals				
Establishments	16	23.1%	2,654	1.9%
Employment	636	121.6%	317,149	4.0%
Location Quotient	0.14		n.a.	
Direct-Effect Employment Multiplier	3.43		9.92	
Total Employment Impact	2,178		2,880,242	
Average Annual Wage	\$47,224		\$86,892	
Medical Devices & Equipment				
Establishments	178	-11.7%	15,215	0.3%
Employment	2,962	-2.5%	422,993	-0.9%
Location Quotient	0.50		n.a.	
Direct-Effect Employment Multiplier	2.53		4.85	
Total Employment Impact	7,508		1,980,128	
Average Annual Wage	\$34,125		\$59,441	
Research, Testing, & Medical Laboratories				
Establishments	269	27.1%	22,857	32.7%
Employment	3,231	-10.0%	449,991	17.8%
Location Quotient	0.52		n.a.	
Direct-Effect Employment Multiplier	2.37		3.25	
Total Employment Impact	7,642		1,440,500	
Average Annual Wage	\$49,900		\$71,284	
Total Private Sector				
Establishments	110,500	3.8%	8,575,730	10.2%
Employment	1,574,947	3.7%	113,463,842	3.1%
Average Annual Wage	\$35,520		\$42,272	

Note: n.a. = metric is not applicable.

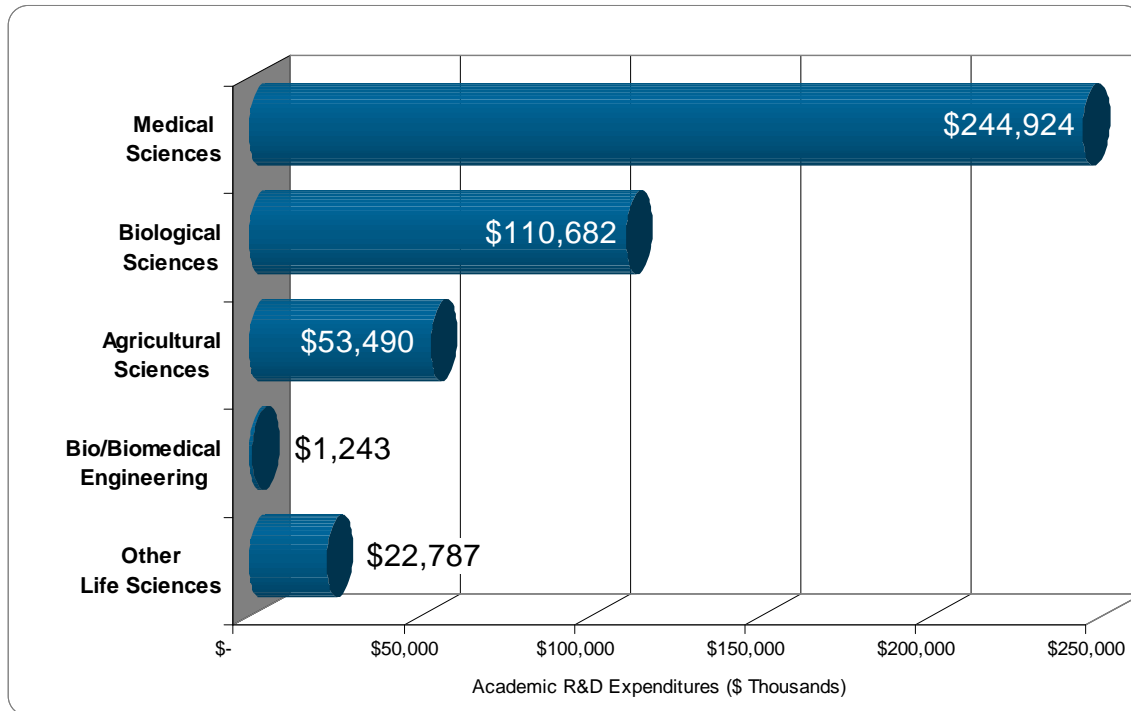
Additional Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

	Alabama	United States	Rank
Academic R&D Expenditures, FY 2006			
Total (\$ thousands)	\$602,431	\$47,760,402	24
Bioscience R&D (\$ thousands)	\$433,126	\$29,307,628	21
Bioscience Share of Total R&D	71.9%	61.4%	
Bioscience R&D Per Capita	\$94.36	\$98.10	
Change in Bioscience R&D FY 2002–2006	25.2%	36.9%	
NIH Funding, FY 2007			
Total (\$ thousands)	\$233,577	\$21,066,389	23
Per Capita Funding	\$50.47	\$69.84	
Change in Funding, FY 2002–2007	-10.9%	11.2%	
Higher Education Degrees in Bioscience Fields, AY 2006	2,505	143,433	20
Employment in Bioscience-related Occupations, 2006	5,990	588,520	28
Bioscience Venture Capital Investments, 2002-2007 (\$ millions)	\$122.7	\$51,260.9	29
Bioscience and Related Patents, 2002-2007	3,274	121,817	10

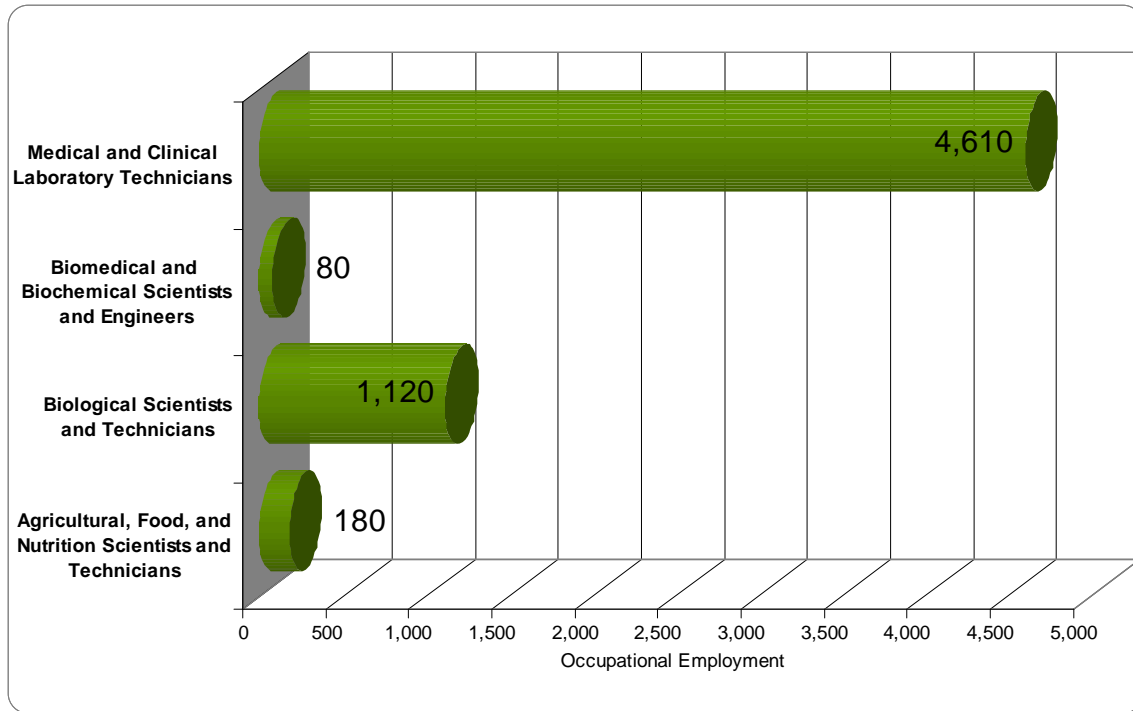
Bioscience R&D Base

Bioscience Academic R&D Expenditures in Alabama, FY 2006

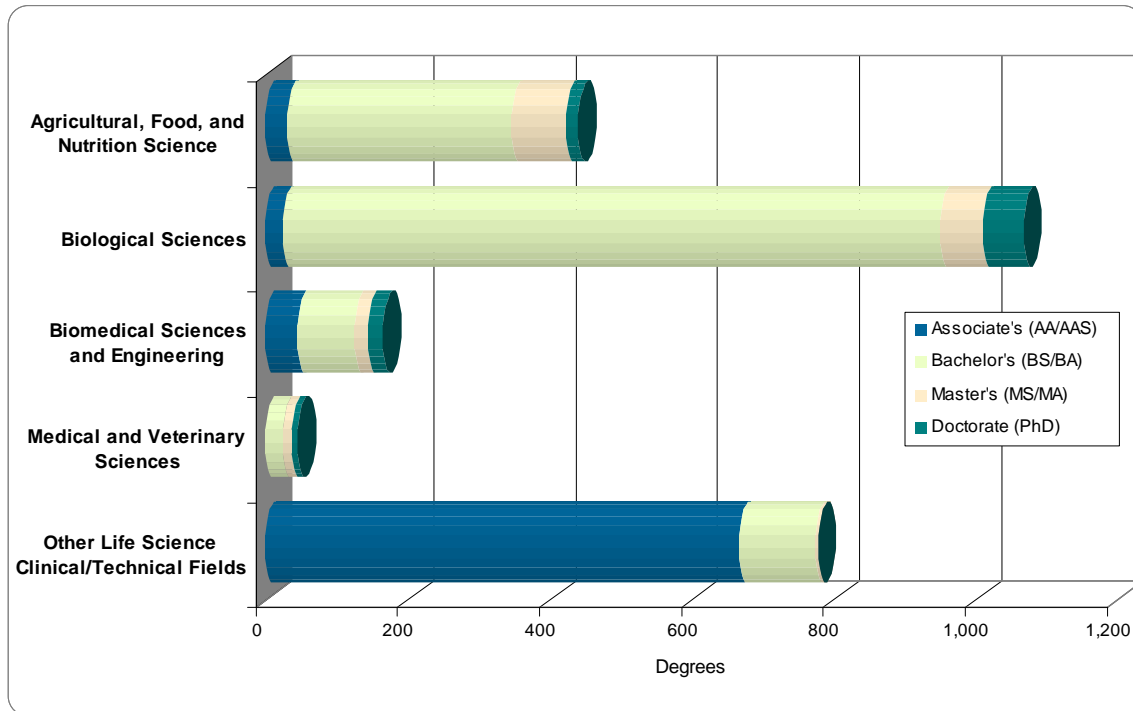


Bioscience Talent Base

Bioscience-related Occupational Employment in Alabama, 2006

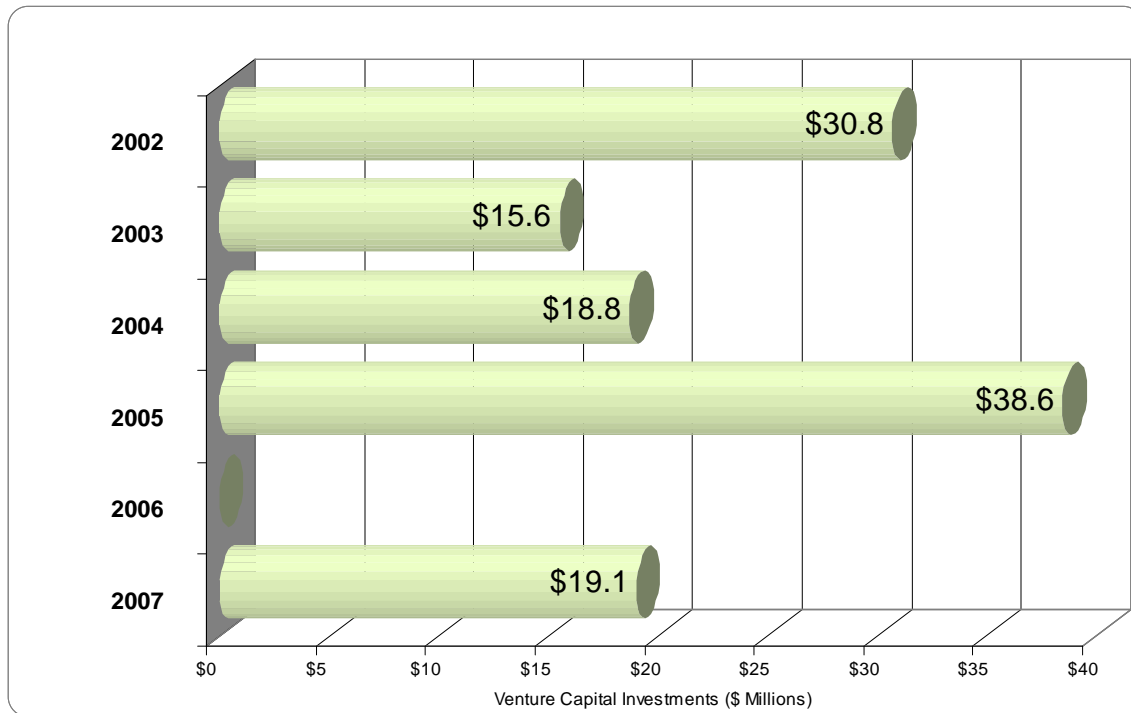


Bioscience-related Degrees in Alabama, AY 2006

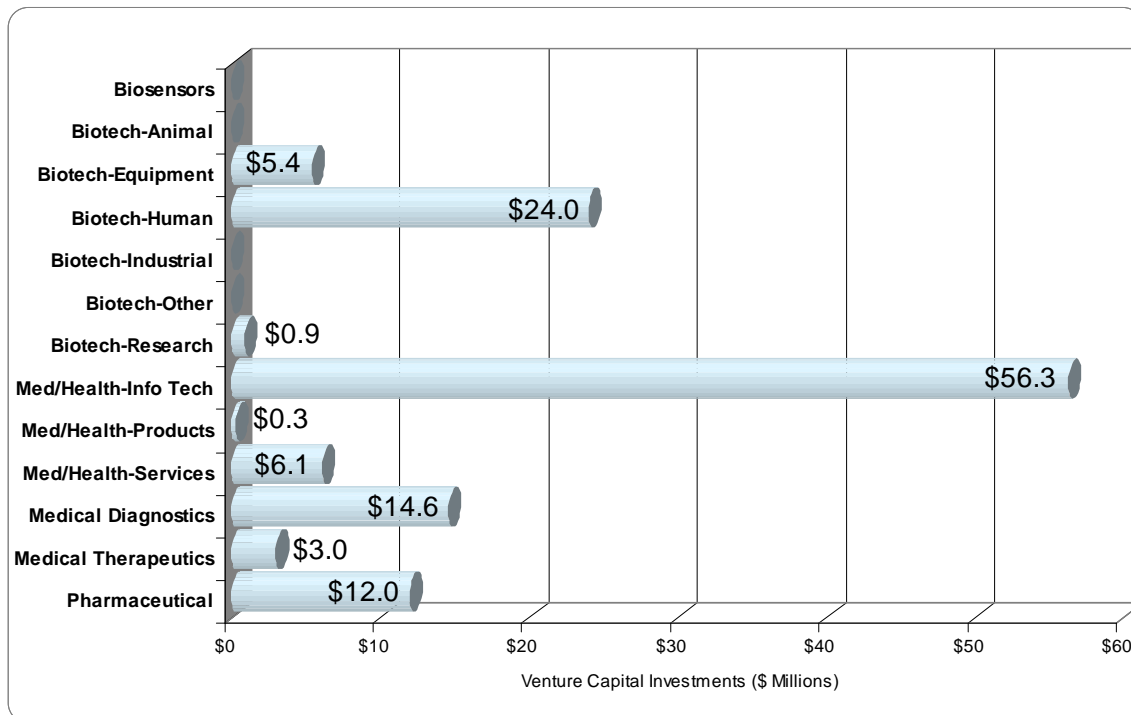


Bioscience Venture Capital

Bioscience-related Venture Capital Investments in Alabama, 2002–2007

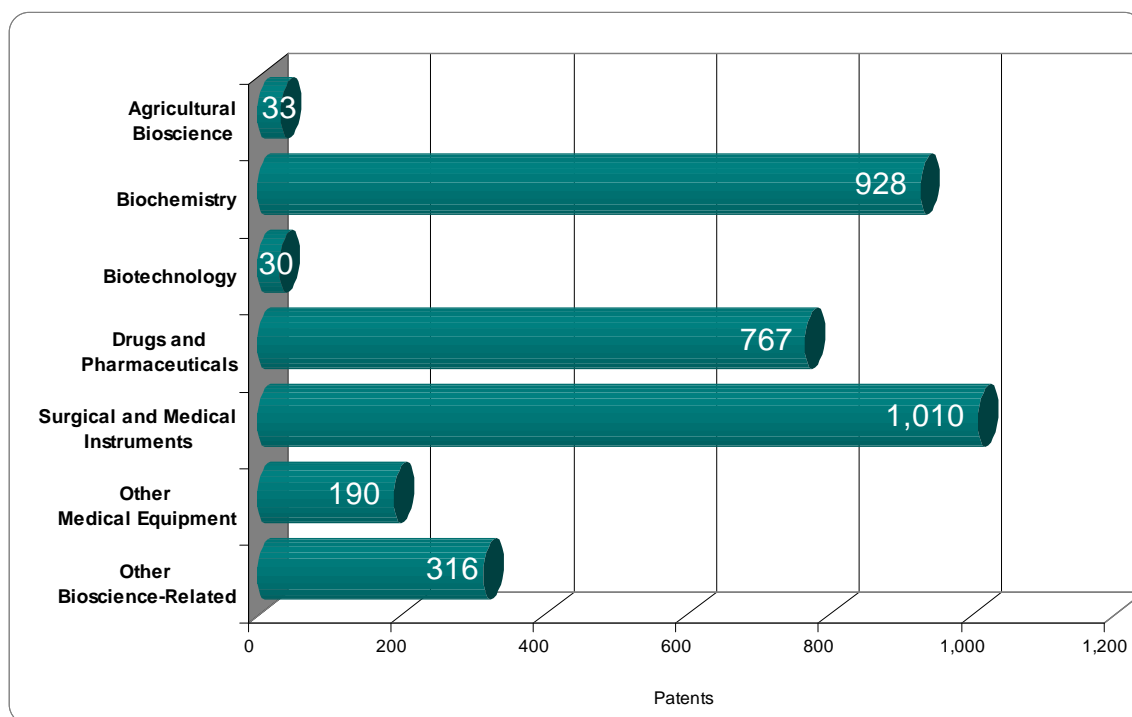


Bioscience-related Venture Capital Investments in Alabama by Segment, 2002–2007



Bioscience Patents

Bioscience-related Patents by Classification Group in Alabama, 2002–2007



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Source Notes:

Employment, Establishment, and Wage Data: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) industry data provided by the Minnesota IMPLAN Group, 2001 and 2006.

Employment Multipliers: U.S. Bureau of Economic Analysis RIMS II Employment Multipliers, 2005 (most currently available).

Academic R&D Expenditures: National Science Foundation (NSF) Survey of Research and Development Expenditures at Universities and Colleges, 2002 and 2006.

NIH Funding: National Institutes of Health – Office of Extramural Research, Award Trends – Dollars Awarded by State, 2002 and 2007.

Higher Education Degrees: National Center for Educational Statistics, Integrated Postsecondary Education Data System (IPEDS), 2006.

Occupational Employment: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES) survey data, 2006.

Venture Capital: Thomson Reuters VentureExpert Database, 2002-2007, as of May 1, 2008.

Patents: U.S. Patent & Trademark Office data as available from the Thomson Reuters' Delphion Patent Analysis Database, 2002–2007, as of May 1, 2008.

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