

LOUISIANA

Louisiana has a strong employment specialization in the agricultural feedstock and chemicals subsector (location quotient of 2.64). Total academic bioscience research expenditures in 2006 were \$362 million, of which the largest share was in the biological sciences (\$144 million). With 2,573 bioscience patents in the past 6 years, Louisiana ranked 16th nationally. The largest patent category by far was surgical and medical instruments.

Recent State Initiatives

The State of Louisiana continues to invest in building the State's bioscience research infrastructure. The Legislature approved \$102 million for planning and construction of a 175,000-square-foot facility for the **Louisiana Cancer Research Consortium (LCRC)** in 2007. The LCRC is a collaboration of Tulane University Health Sciences Center and the Louisiana State University (LSU) Health Sciences Center. The facility will be located in downtown New Orleans adjacent to the planned medical center district. The State also invested \$71 million in clinical research infrastructure at the **Pennington Biomedical Research Center (PBRC)**. PBRC is a campus of the LSU System that conducts basic, clinical, and population research in nutrition and preventive medicine.

To ensure that Louisiana has a supply of workers with bioscience skills, the Biomedical Research Foundation of Northwest Louisiana and LSU Health Sciences Center in Shreveport partnered with the Caddo Parish School Board to create a **Biotechnology Magnet Academy** at Southwood High School in Shreveport. The Academy opened in the fall of 2006 and serves 120 students in grades 9 through 12.

For additional information on Louisiana's bioscience policies and programs, please see <http://www.led.louisiana.gov> and <http://www.biomed.org>.

Major Industry Developments and Recent Successes

- **Esperance Pharmaceuticals Inc.**, a Baton Rouge start-up company developing targeted and selective anticancer agents, secured a \$9 million Series A round of financing that will help the company move its lead compound toward early clinical testing.
- **NuPotential** closed on a \$3 million Series A round of financing in 2007. The Baton Rouge start-up company is developing novel approaches to direct reprogramming of human cells into stem cells that can differentiate into any number of cell types to treat degenerative diseases.
- Shreveport-based **CaloSyn Pharma** closed on a \$10 million Series A round of venture capital in January 2008 to advance its osteoarthritis pain medication into clinical trials.

Bioscience Industry Base, 2006

Industry Subsector	Louisiana		United States	
	2006	2001-06 Change	2006	2001-06 Change
Agricultural Feedstock & Chemicals				
Establishments	49	-1.0%	2,183	3.8%
Employment	3,636	-18.3%	105,846	-6.1%
Location Quotient	2.64		n.a.	
Direct-Effect Employment Multiplier	8.81		11.22	
Total Employment Impact	32,047		1,214,709	
Average Annual Wage	\$88,116		\$67,870	
Drugs & Pharmaceuticals				
Establishments	16	-33.3%	2,654	1.9%
Employment	294	1.7%	317,149	4.0%
Location Quotient	0.07		n.a.	
Direct-Effect Employment Multiplier	3.94		9.92	
Total Employment Impact	1,157		2,880,242	
Average Annual Wage	\$48,330		\$86,892	
Medical Devices & Equipment				
Establishments	161	-2.0%	15,215	0.3%
Employment	850	-24.1%	422,993	-0.9%
Location Quotient	0.15		n.a.	
Direct-Effect Employment Multiplier	2.15		4.85	
Total Employment Impact	1,825		1,980,128	
Average Annual Wage	\$30,688		\$59,441	
Research, Testing, & Medical Laboratories				
Establishments	322	36.3%	22,857	32.7%
Employment	2,279	-15.1%	449,991	17.8%
Location Quotient	0.39		n.a.	
Direct-Effect Employment Multiplier	2.15		3.25	
Total Employment Impact	4,895		1,440,500	
Average Annual Wage	\$40,154		\$71,284	
Total Private Sector				
Establishments	116,036	5.5%	8,575,730	10.2%
Employment	1,474,222	-2.6%	113,463,842	3.1%
Average Annual Wage	\$36,881		\$42,272	

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

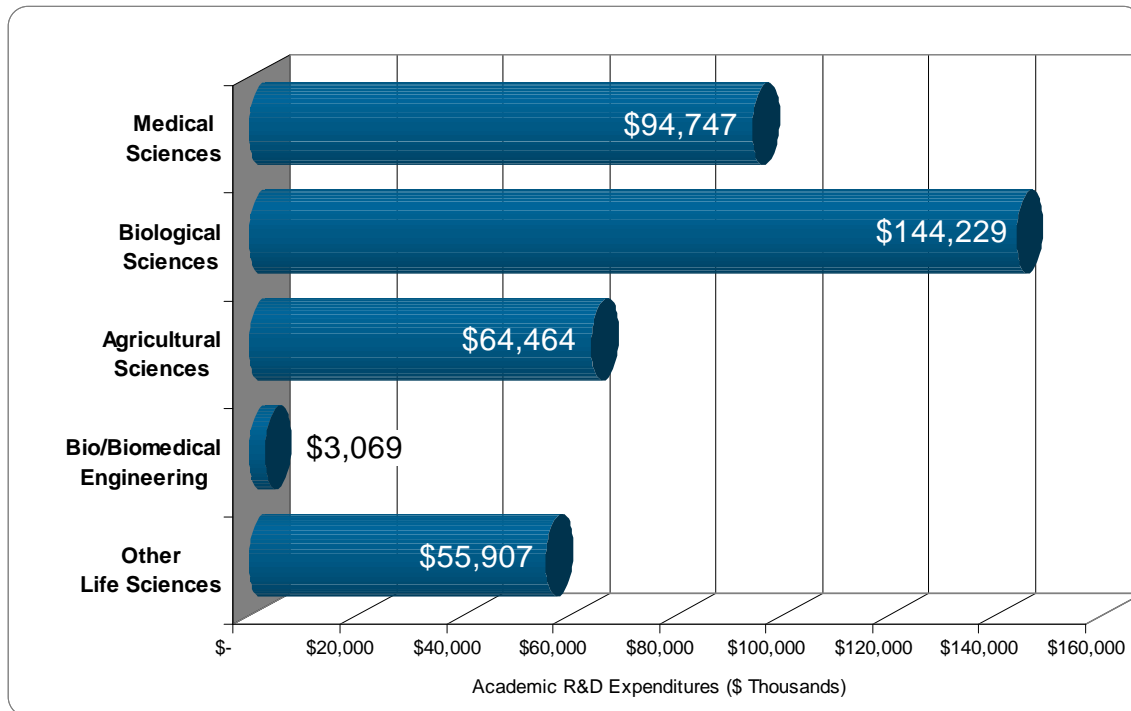
Additional Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

	Louisiana	United States	Rank
Academic R&D Expenditures, FY 2006			
Total (\$ thousands)	\$539,118	\$47,760,402	27
Bioscience R&D (\$ thousands)	\$362,416	\$29,307,628	26
Bioscience Share of Total R&D	67.2%	61.4%	
Bioscience R&D Per Capita	\$85.41	\$98.10	
Change in Bioscience R&D FY 2002–2006	21.4%	36.9%	
NIH Funding, FY 2007			
Total (\$ thousands)	\$137,123	\$21,066,389	30
Per Capita Funding	\$31.94	\$69.84	
Change in Funding, FY 2002–2007	12.0%	11.2%	
Higher Education Degrees in Bioscience Fields, AY 2006	2,101	143,433	23
Employment in Bioscience-related Occupations, 2006	7,080	588,520	23
Bioscience Venture Capital Investments, 2002-2007 (\$ millions)	\$14.0	\$51,260.9	40
Bioscience and Related Patents, 2002-2007	2,573	121,817	16

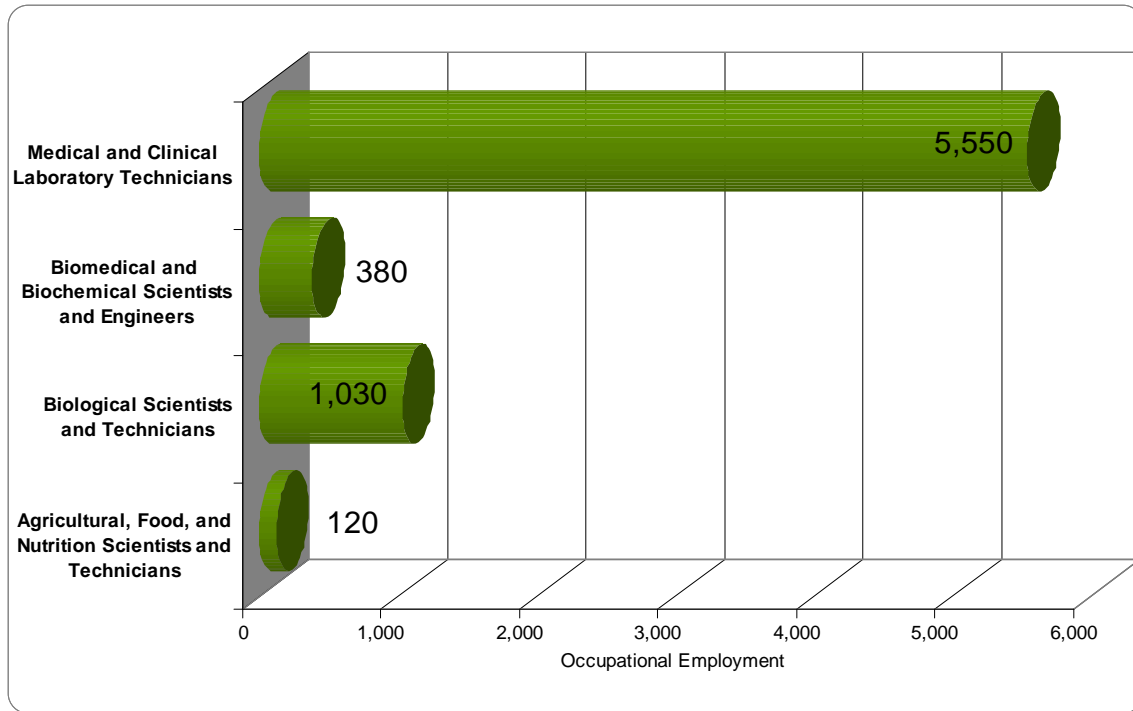
Bioscience R&D Base

Bioscience Academic R&D Expenditures in Louisiana, FY 2006

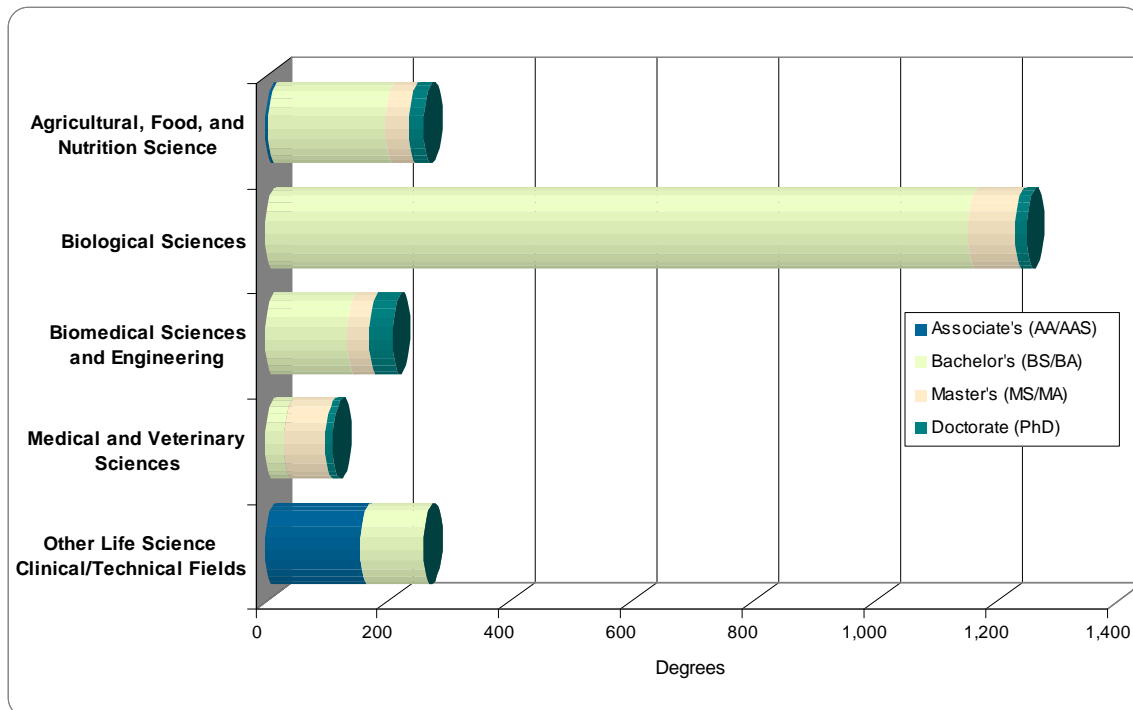


Bioscience Talent Base

Bioscience-related Occupational Employment in Louisiana, 2006

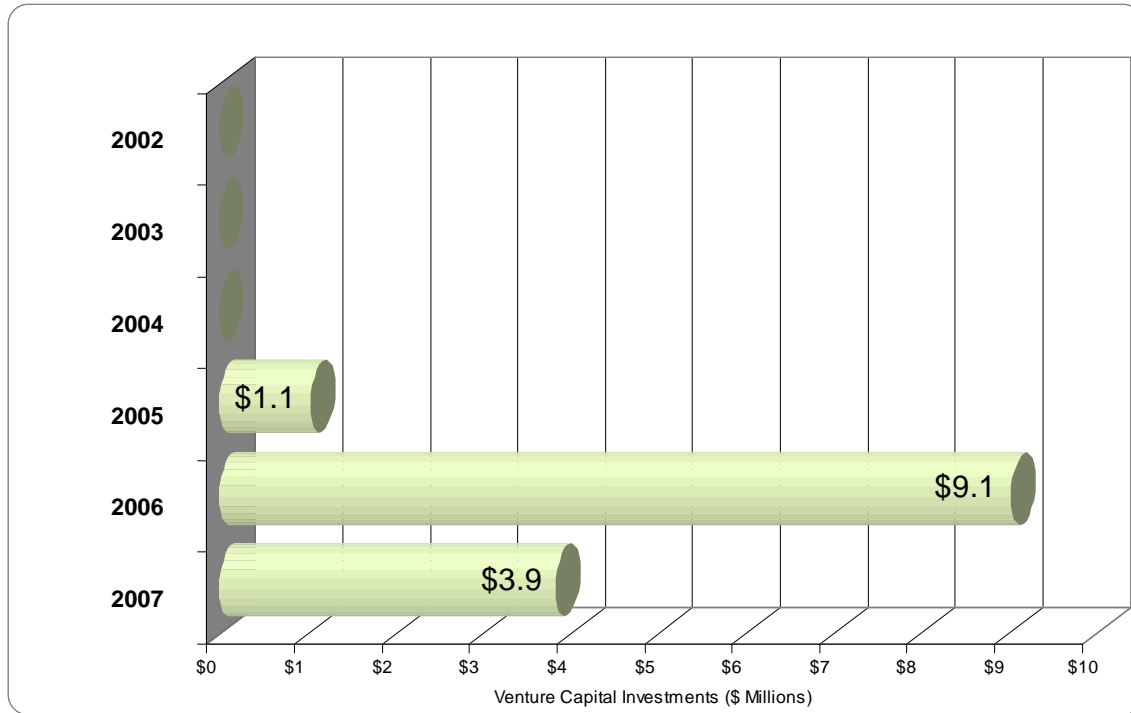


Bioscience-related Degrees in Louisiana, AY 2006

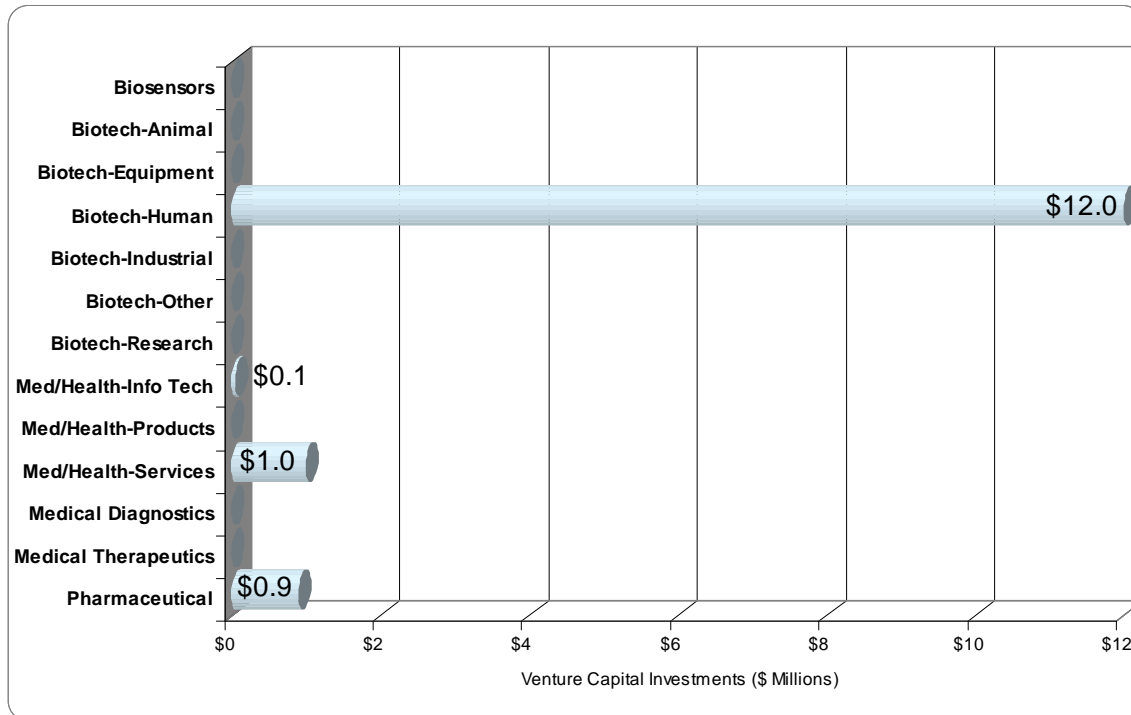


Bioscience Venture Capital

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

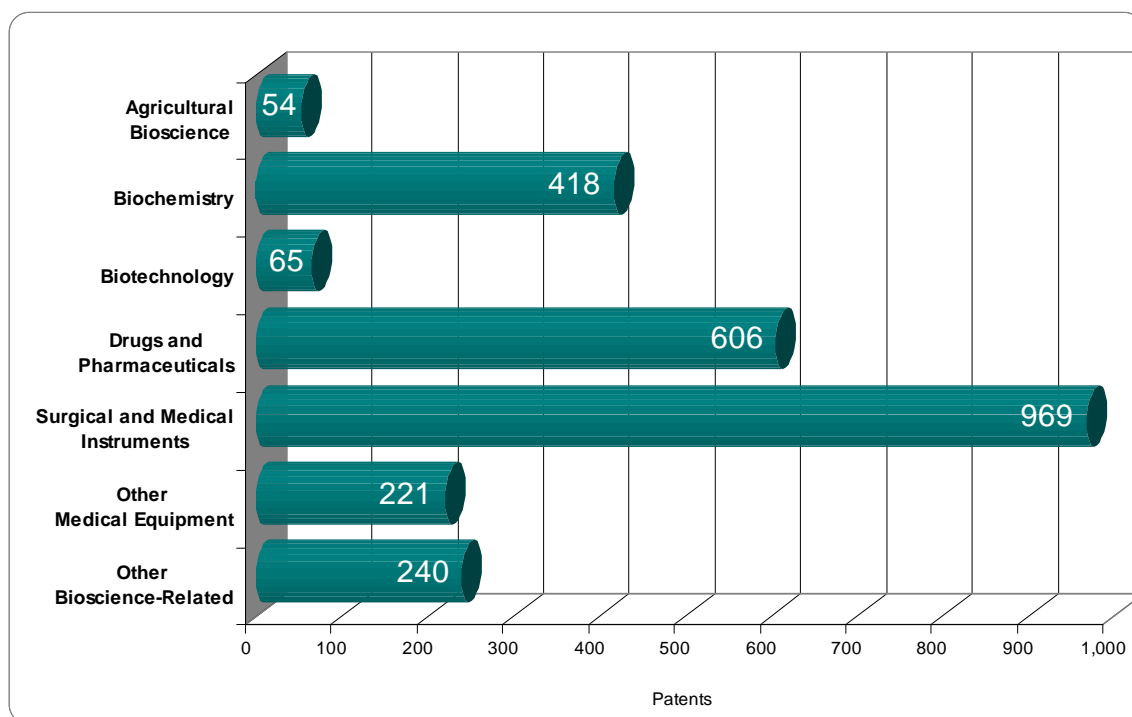


Bioscience-related Venture Capital Investments in Louisiana by Segment, 2002–2007



Bioscience Patents

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



State Bioscience Contacts

State Agency Contact:

Bob Fudickar
Director of Technology
Louisiana Economic Development
P.O. Box 94185
Baton Rouge, LA 70804-9185
(225) 342-6816
fudickar@la.gov

State Bio Association Contact:

Dennis Lower
Vice President, Planning and Development
Biomedical Research Foundation of Northwest
Louisiana
BioSpace 1
2031 Kings Highway
Shreveport, LA 71103
(318) 213-0200
dlower@biomed.org

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.