

ILLINOIS

Illinois has greater than 5 percent of national employment and specialized concentrations in both the agricultural feedstock and chemicals subsector (location quotient of 2.00) and drugs and pharmaceuticals (1.36). Academic research expenditures in the biosciences totaled \$1.2 billion in 2006, mainly in medical sciences (\$613 million) and biological sciences (\$372 million). Illinois is a leading producer of bioscience-related degrees, ranking second nationally in 2006. Venture capital bioscience investments reached a total of \$625 million over the 2002–2007 period (hitting a peak of \$230 million in 2007); most investments were made within the pharmaceuticals sector, followed by medical/health services and human biotechnology.

Major Industry Developments and Recent Successes

- **Siemens Medical Solutions Diagnostics** acquired Deerfield-based Dade Behring in 2007, to become the world's largest company dedicated solely to clinical diagnostics.
- **Astellas Pharma** will launch this year an Illinois-based unit to supervise global drug development, managing 350 Astellas workers involved in drug development in the United States.

Recent State Initiatives

For the second time in 5 years, Illinois has provided financial incentives to bring the BIO conference to Chicago, this time in 2010. Since the 2006 conference (when the state unveiled its “Putting Science to Work” theme), state government has continued to disburse capital funding for a series of research parks and has funded several workforce and entrepreneurial programs at **iBIO** and its affiliated **iBIO Institute**. The House of the Illinois General Assembly has also added a Bio-Technology Committee.

Recently, iBIO and the iBIO Institute used state funding to create **PROPEL**, an entrepreneurial support program modeled on the CONNECT[®] Springboard program at the University of California (UC) at San Diego. The goal of the program is to prepare life-science entrepreneurs to launch businesses and seek venture-capital funding. PROPEL is part of the state-funded iBIO Entrepreneurship Center, a statewide technical assistance and seed-grant program managed by iBIO.

During 2007, the iBIO Institute convened the **Agricultural Biotechnology Leadership Summit**, a broad-based panel chaired by the agriculture dean at the University of Illinois (UI) and charged to develop an academic-industrial consensus on an agbioscience strategy. This process unfolded at the same time as the opening of the University's signature multidisciplinary bioscience R&D facility, the Institute for Genomic Biology at the Urbana-Champaign (UIUC) campus. The Institute will also house the University's umbrella **Center for Advanced BioEnergy Research** and UIUC's component of the **Energy Biosciences Institute**, funded by BP in collaboration with UC-Berkeley and Lawrence Berkeley National Laboratory.

Through the National Governors Association Policy Academy program, Illinois is developing a demonstration program on using the National Education Technology Standards in a curriculum to promote innovation-centered learning.

For additional information on Illinois's bioscience policies and programs, please see <http://www.illinoisbiz.biz/dceo/> or <http://www.ibio.org>.

Bioscience Industry Base, 2006

Industry Subsector	Illinois		United States	
	2006	2001-06 Change	2006	2001-06 Change
Agricultural Feedstock & Chemicals				
Establishments	103	20.9%	2,183	3.8%
Employment	9,343	2.0%	105,846	-6.1%
Location Quotient	2.00		n.a.	
Direct-Effect Employment Multiplier	11.22		11.22	
Total Employment Impact	104,841		1,214,709	
Average Annual Wage	\$73,209		\$67,870	
Drugs & Pharmaceuticals				
Establishments	118	-5.6%	2,654	1.9%
Employment	19,084	-5.9%	317,149	4.0%
Location Quotient	1.36		n.a.	
Direct-Effect Employment Multiplier	7.79		9.92	
Total Employment Impact	148,617		2,880,242	
Average Annual Wage	\$93,198		\$86,892	
Medical Devices & Equipment				
Establishments	706	2.9%	15,215	0.3%
Employment	13,123	-6.0%	422,993	-0.9%
Location Quotient	0.70		n.a.	
Direct-Effect Employment Multiplier	3.40		4.85	
Total Employment Impact	44,630		1,980,128	
Average Annual Wage	\$67,501		\$59,441	
Research, Testing, & Medical Laboratories				
Establishments	795	31.8%	22,857	32.7%
Employment	13,262	-16.6%	449,991	17.8%
Location Quotient	0.67		n.a.	
Direct-Effect Employment Multiplier	2.56		3.25	
Total Employment Impact	33,932		1,440,500	
Average Annual Wage	\$83,779		\$71,284	
Total Private Sector				
Establishments	340,993	9.4%	8,575,730	10.2%
Employment	5,013,506	-1.3%	113,463,842	3.1%
Average Annual Wage	\$45,866		\$42,272	

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

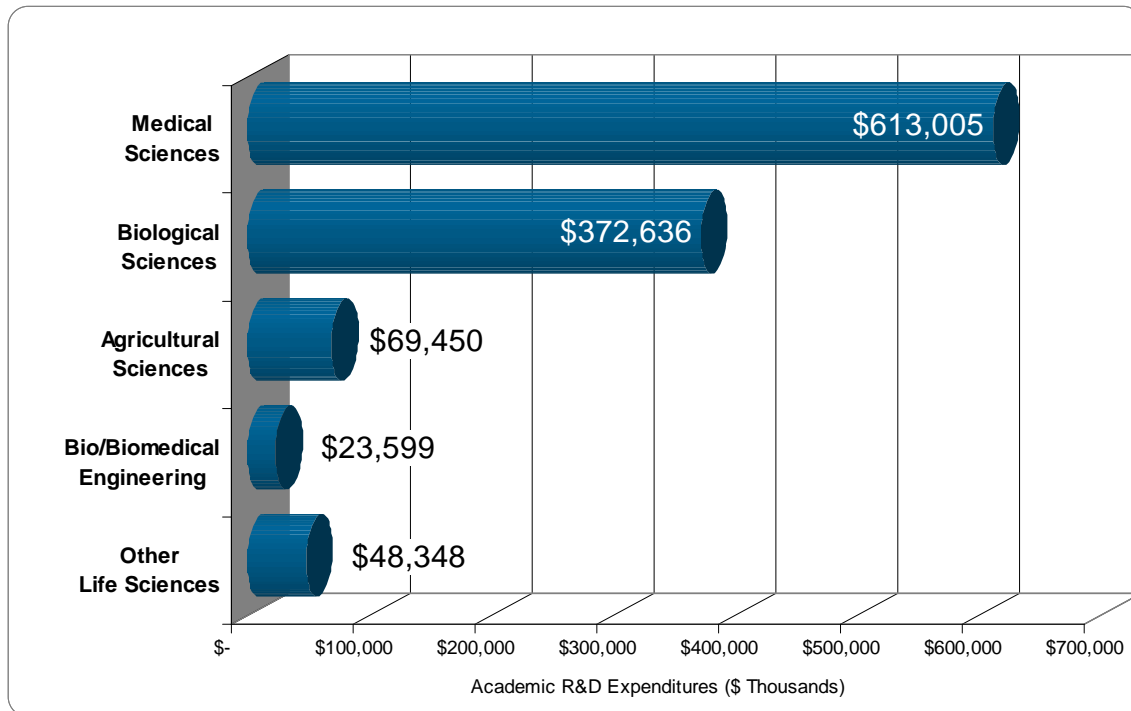
Additional Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

	Illinois	United States	Rank
Academic R&D Expenditures, FY 2006			
Total (\$ thousands)	\$1,823,787	\$47,760,402	7
Bioscience R&D (\$ thousands)	\$1,127,038	\$29,307,628	7
Bioscience Share of Total R&D	61.8%	61.4%	
Bioscience R&D Per Capita	\$88.21	\$98.10	
Change in Bioscience R&D FY 2002–2006	34.0%	36.9%	
NIH Funding, FY 2007			
Total (\$ thousands)	\$723,581	\$21,066,389	9
Per Capita Funding	\$56.30	\$69.84	
Change in Funding, FY 2002–2007	27.0%	11.2%	
Higher Education Degrees in Bioscience Fields, AY 2006	9,622	143,433	2
Employment in Bioscience-related Occupations, 2006	23,757	588,520	6
Bioscience Venture Capital Investments, 2002-2007 (\$ millions)	\$625.4	\$51,260.9	16
Bioscience and Related Patents, 2002-2007	2,933	121,817	13

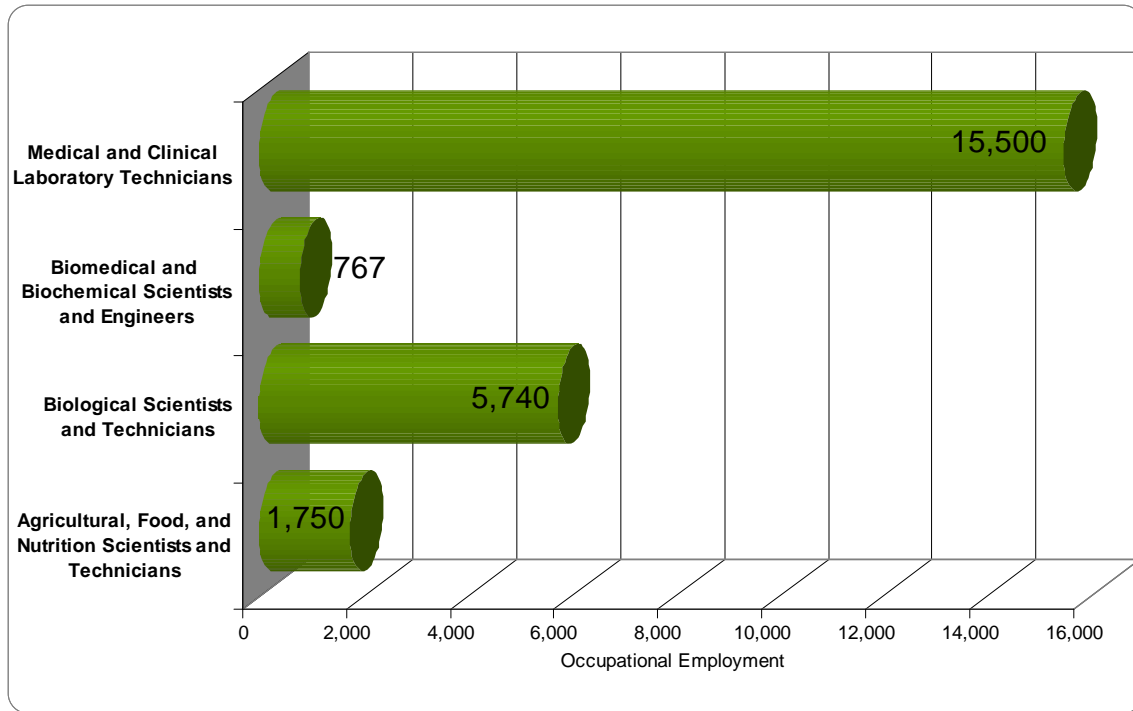
Bioscience R&D Base

Bioscience Academic R&D Expenditures in Illinois, FY 2006

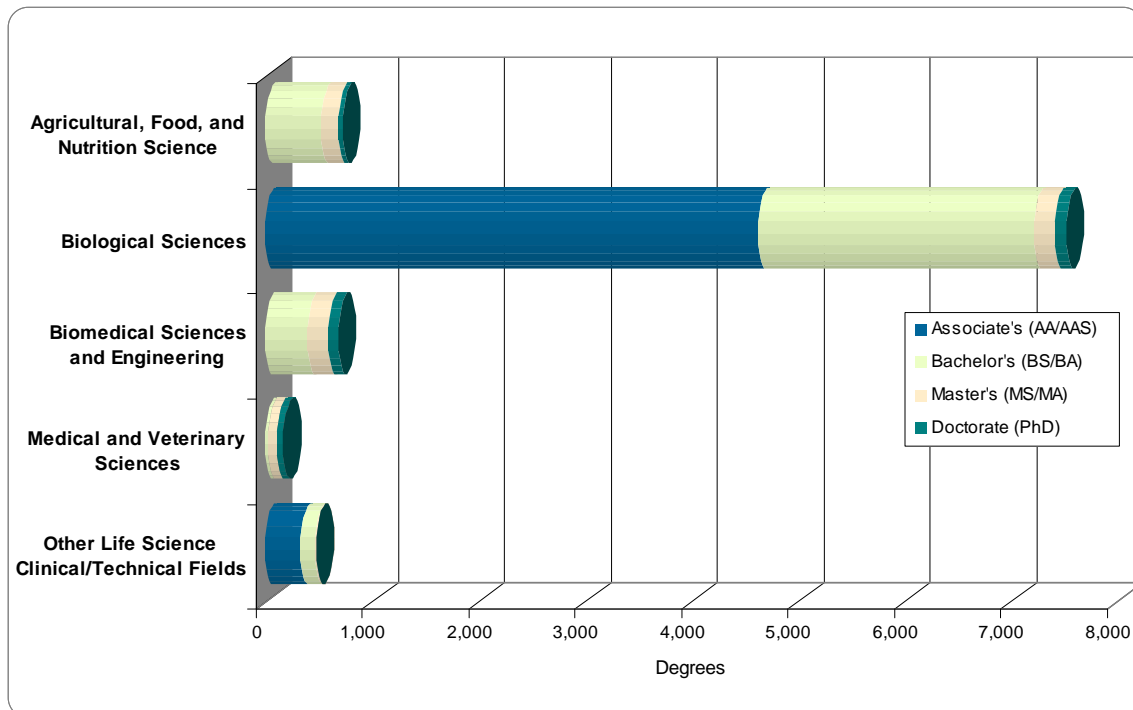


Bioscience Talent Base

Bioscience-related Occupational Employment in Illinois, 2006

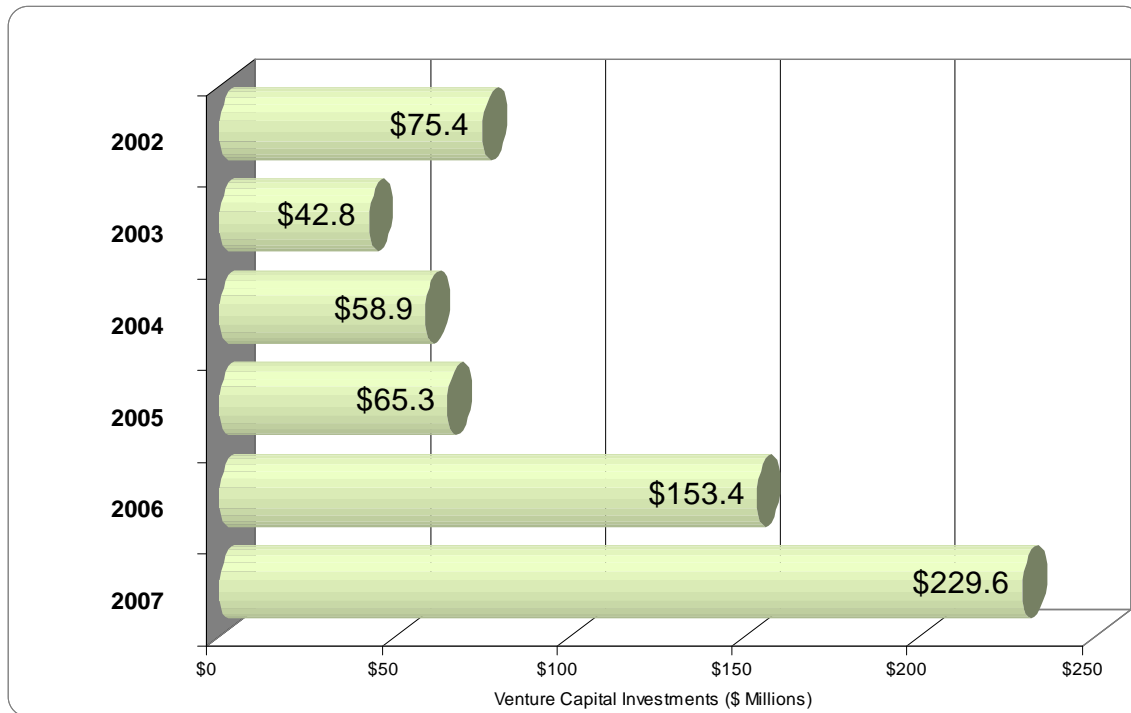


Bioscience-related Degrees in Illinois, AY 2006

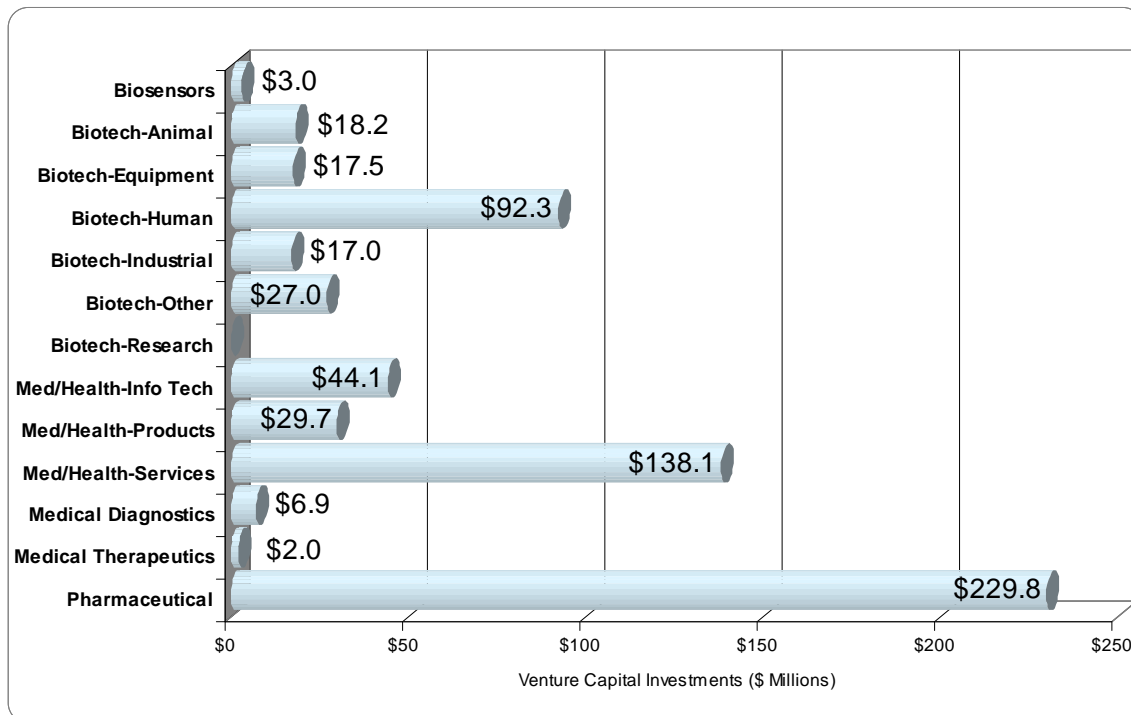


Bioscience Venture Capital

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

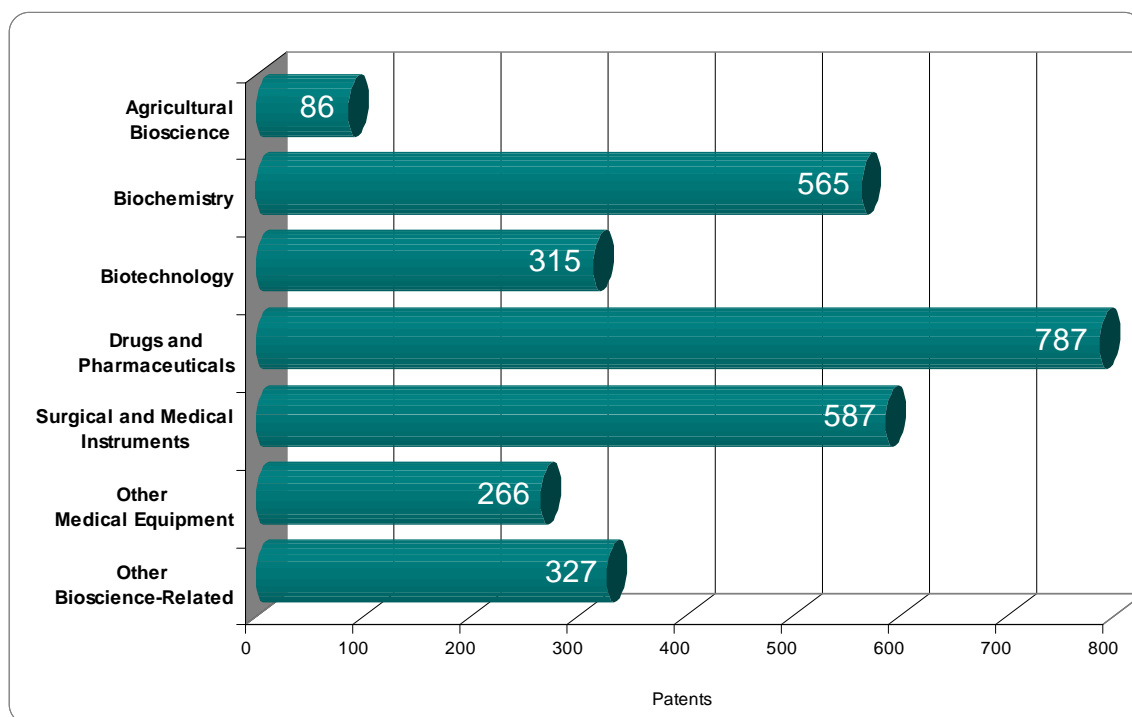


Bioscience-related Venture Capital Investments in Illinois by Segment, 2002–2007



Bioscience Patents

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



State Bioscience Contacts

State Agency Contact:

Ray Williams
Acting Deputy Director, Bureau of Technology and
Industrial Competitiveness
Illinois Department of Commerce and Economic
Opportunity
100 West Randolph Street, Suite 3-400
Chicago, IL 60601
(312) 814-8428
ray.williams@illinois.gov

State Bio Association Contact:

David Miller
President and Chief Executive Officer
Illinois Biotechnology Industry Organization (iBIO)
65 East Wacker Place, Suite 1600
Chicago, IL 60601
(312) 422-1111
dmiller@ibio.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.