

Illinois



Illinois' bioscience industry is large, highly concentrated, and diverse with three specialized niche subsectors. The state's bioscience companies employed more than 78,000 in 3,485 business establishments in 2012. Illinois has an 11 percent greater concentration of jobs in the biosciences relative to the national average. Three of its industry subsectors have a specialized employment concentration (location quotient of 1.20 or greater)—agricultural feedstock and chemicals; drugs and pharmaceuticals; and bioscience-related distribution. The state's medical device subsector is emerging with 11 percent job growth since 2007. Illinois has a large academic bioscience R&D base, with \$1.5 billion in 2012 expenditures placing it among the top tier of states. The state also is among the leading states in NIH funding, bioscience venture capital investments, and bioscience-related patents issued since 2009.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Illinois	United States	Quintile
Bioscience Industry, 2012			
Bioscience Industry Employment	78,561	1,619,746	I
Bioscience Industry Location Quotient	1.11	n/a	II
Bioscience Industry Establishments	3,485	73,088	I
Academic Bioscience R&D Expenditures, FY 2012			
Bioscience R&D (\$ thousands)	\$1,487,231	\$38,139,876	I
Bioscience Share of Total R&D	65%	61%	II
Bioscience R&D Per Capita	\$115	\$119	III
NIH Funding, FY 2013			
Funding (\$ thousands)	\$760,095	\$22,293,255	I
Funding Per Capita	\$59	\$70	II
Bioscience Venture Capital Investments, 2009–13 (\$ millions)	\$1,292.1	\$49,401.7	I
Bioscience and Related Patents, 2009–13	4,040	100,238	I

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

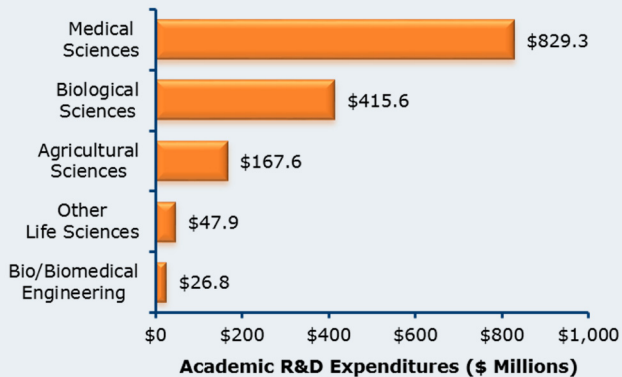
For source notes, see end of State Profile.

Industry Subsector	Illinois		United States	
	2012	2007-2012 Change	2012	2007-2012 Change
Agricultural Feedstock & Chemicals				
Establishments	89	4.7%	1,772	5.2%
Employment	8,149	-4.0%	76,404	-1.0%
Location Quotient	2.45		n/a	
Direct-Effect Employment Multiplier	27.2		18.1	
Total Employment Impact	221,585		1,382,637	
Average Annual Wage	\$86,964	12.6%	\$75,828	14.2%
Bioscience-Related Distribution				
Establishments	1,999	-1.7%	36,793	1.4%
Employment	25,962	-5.5%	442,016	-3.9%
Location Quotient	1.40		n/a	
Direct-Effect Employment Multiplier	2.9		2.7	
Total Employment Impact	74,178		1,199,015	
Average Annual Wage	\$95,494	8.2%	\$85,188	11.5%
Drugs and Pharmaceuticals				
Establishments	127	11.4%	3,057	12.0%
Employment	17,755	-4.8%	284,331	-10.9%
Location Quotient	1.44		n/a	
Direct-Effect Employment Multiplier	12.0		9.9	
Total Employment Impact	212,883		2,673,265	
Average Annual Wage	\$140,593	26.3%	\$106,576	13.9%
Medical Devices and Equipment				
Establishments	419	26.2%	7,235	12.0%
Employment	12,142	11.2%	349,432	1.4%
Location Quotient	0.80		n/a	
Direct-Effect Employment Multiplier	4.3		3.9	
Total Employment Impact	51,822		1,318,459	
Average Annual Wage	\$103,799	14.9%	\$75,695	10.7%
Research, Testing, and Medical Laboratories				
Establishments	852	22.7%	24,231	31.0%
Employment	14,554	-0.9%	467,563	9.7%
Location Quotient	0.72		n/a	
Direct-Effect Employment Multiplier	2.9		2.7	
Total Employment Impact	42,586		1,284,196	
Average Annual Wage	\$103,186	17.6%	\$91,248	15.9%
Total Bioscience Industry				
Establishments	3,485	7.0%	73,088	11.4%
Employment	78,561	-2.1%	1,619,746	-0.4%
Location Quotient	1.11		n/a	
Direct-Effect Employment Multiplier	6.9		4.9	
Total Employment Impact	542,271		7,857,572	
Average Annual Wage	\$107,510	16.0%	\$88,202	12.8%
Total Private Sector				
Establishments	375,546	7.1%	8,699,564	-0.5%
Employment	4,836,191	-4.4%	111,137,206	-3.1%
Average Annual Wage	\$52,367	9.1%	\$49,130	11.1%

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

Bioscience Research in Illinois

Bioscience Academic R&D Expenditures, FY 2012

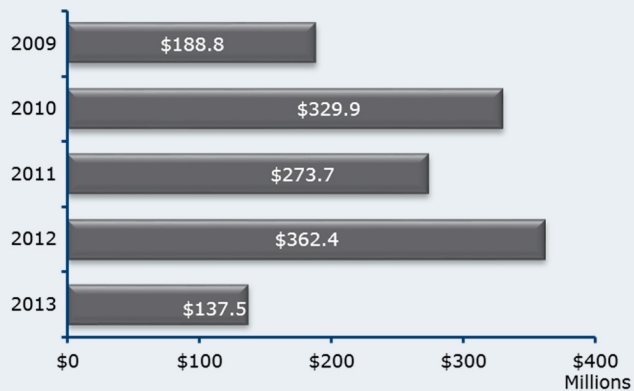


NIH Awards, 2009–2013

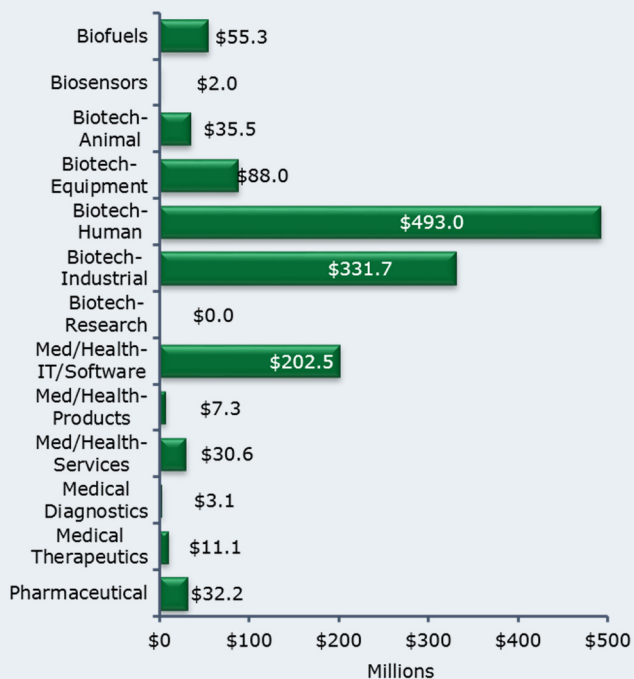


Bioscience Venture Capital in Illinois

Bioscience-Related Venture Capital Investments, 2009–2013

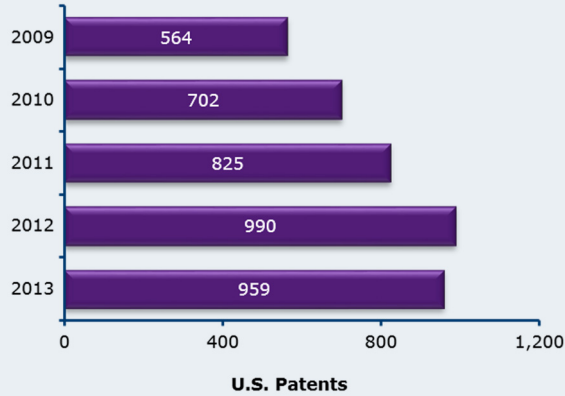


Bioscience-Related Venture Capital Investments by Segment, 2009–2013

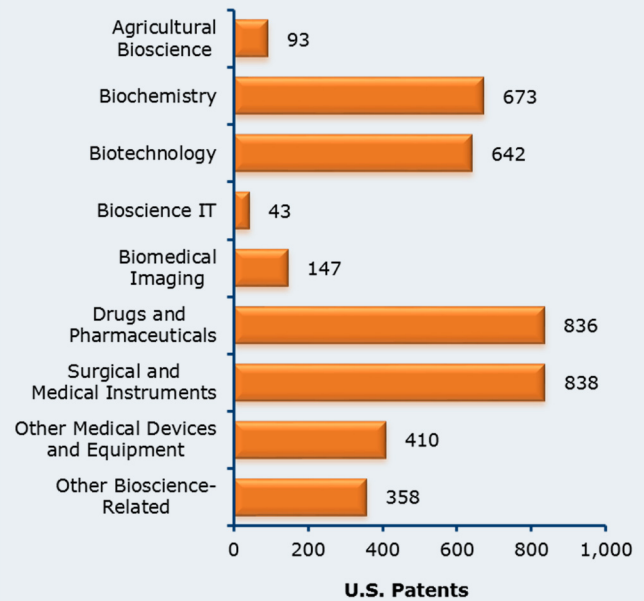


Bioscience Patents in Illinois

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.