



TEconomy/BIO

The Value of Bioscience Innovation in Growing Jobs and Improving Quality of Life 2016

Indiana

Indiana’s bioscience industry is large, highly specialized, and stands out in its diversity. The state’s bioscience companies employed more than 58,000 in 2014 across 1,727 state business establishments. Indiana essentially has a specialized employment concentration in four of the five major subsectors, though the location quotient for bioscience-related distribution comes in just short of the 1.20 specialization threshold. The state is highly specialized in three subsectors—agricultural feedstock and chemicals; drugs and pharmaceuticals; and medical devices. Overall, the industry has grown by 1.4 percent since 2012 with especially large job gains in drugs and pharmaceuticals. Indiana’s research universities combine to conduct nearly \$582 million in bioscience-related R&D. Indiana has been increasing its bioscience patents, which reflect the diversity of the industry with medical devices, agricultural biosciences, biochemistry, and drugs and pharmaceuticals all represented as areas of focus.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Indiana	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	58,461	1,655,680	I
Bioscience Industry Location Quotient	1.64	n/a	I
Bioscience Industry Establishments	1,727	77,283	II
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$581,507	\$38,873,926	II
Bioscience Share of Total R&D	50%	61%	IV
Bioscience R&D Per Capita	\$88	\$122	III
NIH Funding, FY 2015			
Funding (\$ thousands)	\$214,468	\$22,869,746	III
Funding Per Capita	\$32	\$71	IV
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$39.5	\$48,742.10	IV
Bioscience and Related Patents, 2012–15	4,012	101,026	II

State ranking figures for bioscience performance metrics are calculated as quintiles, where:

top quintile – I II III IV V – bottom quintile

For source notes, see end of State Profile.



Indiana

Industry Subsector	Indiana		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	47	2.2%	1,811	2.2%
Employment	4,774	-2.4%	77,545	1.5%
Location Quotient	2.86		n/a	
Direct-Effect Employment Multiplier	18.5		18.4	
Total Employment Impact	88,321		1,432,125	
Average Annual Wage	\$92,499	11.0%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	1,092	-15.2%	37,833	2.8%
Employment	11,311	0.5%	452,325	2.3%
Location Quotient	1.16		n/a	
Direct-Effect Employment Multiplier	2.8		3.0	
Total Employment Impact	32,058		1,358,820	
Average Annual Wage	\$81,324	4.6%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	42	-4.5%	3,301	8.0%
Employment	17,414	18.7%	293,353	3.2%
Location Quotient	2.76		n/a	
Direct-Effect Employment Multiplier	10.1		11.0	
Total Employment Impact	175,590		3,242,627	
Average Annual Wage	\$134,344	-0.5%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	156	0.6%	7,636	5.5%
Employment	16,796	-10.9%	349,045	-0.1%
Location Quotient	2.23		n/a	
Direct-Effect Employment Multiplier	4.3		4.6	
Total Employment Impact	71,613		1,596,802	
Average Annual Wage	\$66,256	-4.1%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	390	4.1%	26,702	10.2%
Employment	8,166	2.4%	483,412	3.4%
Location Quotient	0.78		n/a	
Direct-Effect Employment Multiplier	2.8		3.1	
Total Employment Impact	22,991		1,554,719	
Average Annual Wage	\$65,990	7.0%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	1,727	-9.5%	77,283	5.7%
Employment	58,461	1.4%	1,655,680	2.2%
Location Quotient	1.64		n/a	
Direct-Effect Employment Multiplier	5.8		5.5	
Total Employment Impact	338,259		9,185,094	
Average Annual Wage	\$91,559	4.3%	\$94,543	7.2%
Total Private Sector				
Establishments	151,900	-1.0%	8,937,672	2.7%
Employment	2,499,827	3.4%	116,018,300	4.4%
Average Annual Wage	\$42,719	3.3%	\$51,148	4.3%

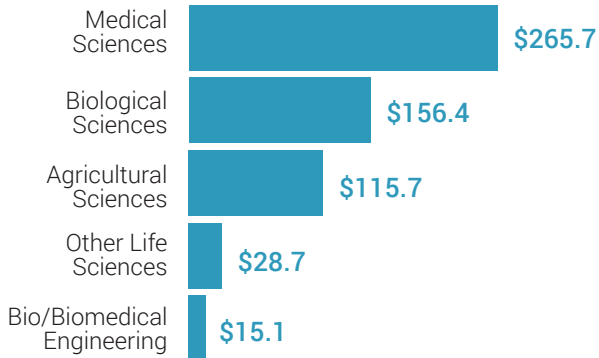
Note: U.S. employment metrics include Puerto Rico.



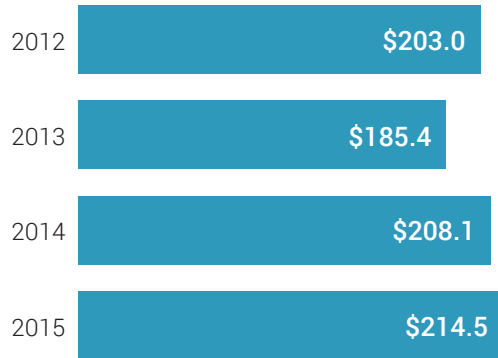
Indiana

Bioscience Research in Indiana

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014

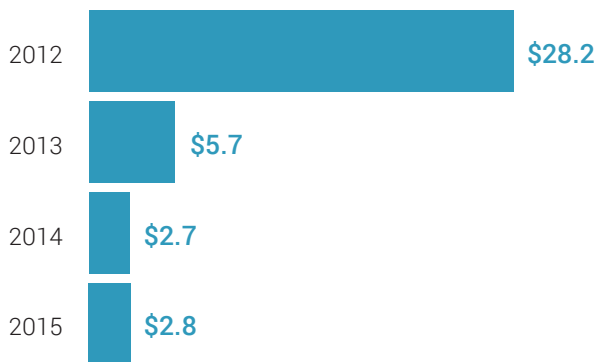


NIH Awards
\$ Millions
FY 2012-2015

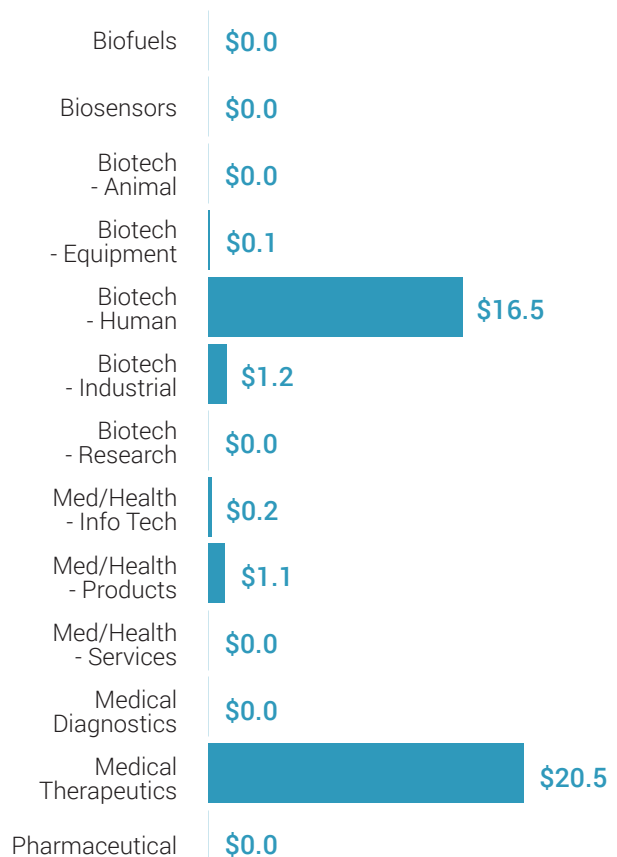


Bioscience Venture Capital in Indiana

Bioscience-Related Venture
Capital Investments
\$ Millions
2012-2015



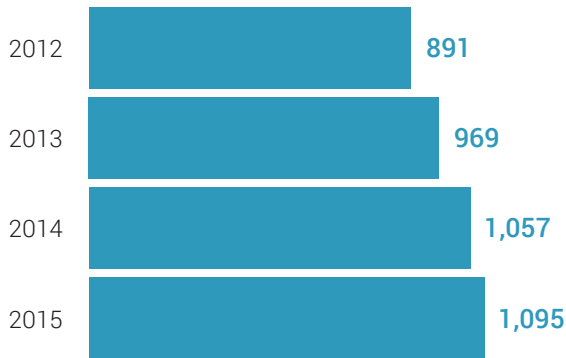
Bioscience-Related Venture
Capital Investments by Segment
\$ Millions
2012-2015



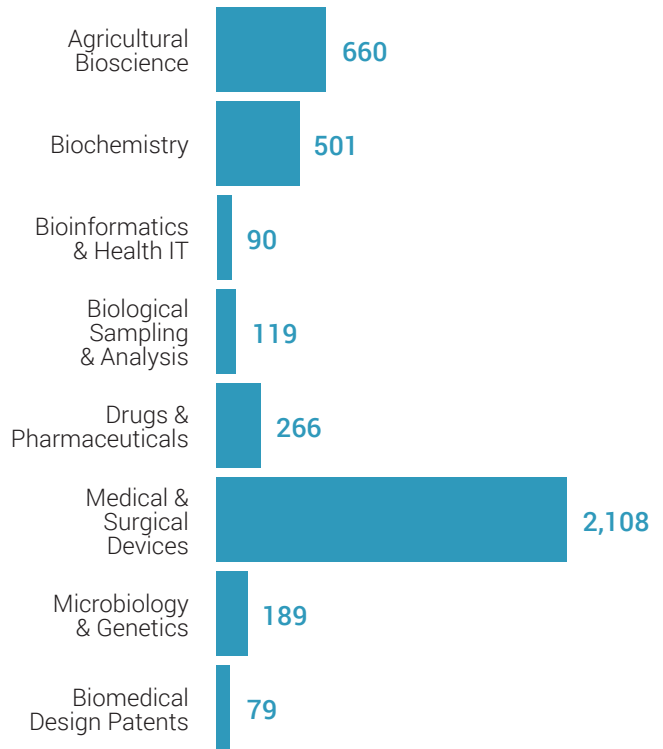


Bioscience Patents in Indiana

Bioscience-Related U.S. Patents
2012-2015



Bioscience-Related U.S. Patents by Segment
2012-2015



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).

Venture Capital: Thomson Reuters Thomson ONE venture capital database.

Patents: U.S. Patent & Trademark Office data from Thomson Reuters Thomson Innovation patent analysis database.

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

