



The bioscience industry in Wisconsin is sizable and growing, with state firms employing nearly 35,000 across 1,382 business establishments in 2016. Growth in both state establishments and employment have outpaced the national average since 2014. The state experienced job gains in each of its five major industry subsectors. Wisconsin has a specialized employment concentration in the medical device and equipment subsector and above-average concentrations in both bioscience-related distribution and agricultural feedstock and industrial biosciences. State research institutions have seen an increase in recent years in NIH funding awards which totaled \$424.9 million in 2017. These federal funds represent a key funding source for the state's \$914 million in academic biosciences R&D expenditures.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Wisconsin	United States	Quintile
Bioscience Industry, 2016			
Bioscience Industry Employment	34,805	1,743,639	II
Bioscience Industry Location Quotient	0.99	n/a	II
Bioscience Industry Establishments	1,382	85,702	III
Academic Bioscience R&D Expenditures, FY 2016			
Bioscience R&D (\$ thousands)	\$914,436	\$41,972,205	II
Bioscience Share of Total R&D	68%	62%	II
Bioscience R&D Per Capita	\$158	\$130	II
NIH Funding, FY 2017			
Funding (\$ thousands)	\$424,885	\$26,150,485	II
Funding Per Capita	\$73	\$80	II
Bioscience Venture Capital Investments, 2014-17 (\$ millions)	\$296.45	\$66,168.62	II
Bioscience and Related Patents, 2014-17	2,775	102,862	II

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	Wisconsin		United States	
	2016	2014-2016 Change	2016	2014-2016 Change
Agricultural Feedstock and Industrial Biosciences				
Establishments	43	4.9%	1,709	-3.2%
Employment	1,416	19.2%	68,027	-1.2%
Location Quotient	1.03		n/a	
Direct-Effect Employment Multiplier	5.26			
Total Employment Impact	7,445			
Average Annual Wage	\$60,617	-5.3%	\$80,961	2.7%
Bioscience-Related Distribution				
Establishments	774	13.9%	39,149	3.8%
Employment	10,151	3.0%	469,640	3.7%
Location Quotient	1.07		n/a	
Direct-Effect Employment Multiplier	2.16			
Total Employment Impact	21,877			
Average Annual Wage	\$76,031	3.9%	\$93,677	2.7%
Drugs and Pharmaceuticals				
Establishments	85	7.6%	3,754	13.7%
Employment	4,759	11.3%	299,113	2.0%
Location Quotient	0.79		n/a	
Direct-Effect Employment Multiplier	4.78			
Total Employment Impact	22,761			
Average Annual Wage	\$72,002	-1.4%	\$113,815	-3.2%
Medical Devices and Equipment				
Establishments	177	0.6%	8,083	5.9%
Employment	9,941	0.1%	359,293	2.9%
Location Quotient	1.37		n/a	
Direct-Effect Employment Multiplier	3.09			
Total Employment Impact	30,698			
Average Annual Wage	\$91,985	1.8%	\$84,746	6.5%
Research, Testing and Medical Laboratories				
Establishments	302	24.5%	33,007	13.1%
Employment	8,538	11.9%	547,566	8.2%
Location Quotient	0.77		n/a	
Direct-Effect Employment Multiplier	2.21			
Total Employment Impact	18,836			
Average Annual Wage	\$70,107	2.9%	\$106,942	5.5%
Total Bioscience Industry				
Establishments	1,382	13.4%	85,702	7.7%
Employment	34,805	5.8%	1,743,639	4.4%
Location Quotient	0.99		n/a	
Direct-Effect Employment Multiplier	2.92			
Total Employment Impact	101,618			
Average Annual Wage	\$77,957	1.5%	\$98,961	3.1%
Total Private Sector				
Establishments	154,528	5.9%	9,243,034	3.4%
Employment	2,440,927	3.6%	120,884,570	4.2%
Average Annual Wage	\$45,938	5.1%	\$53,354	4.3%

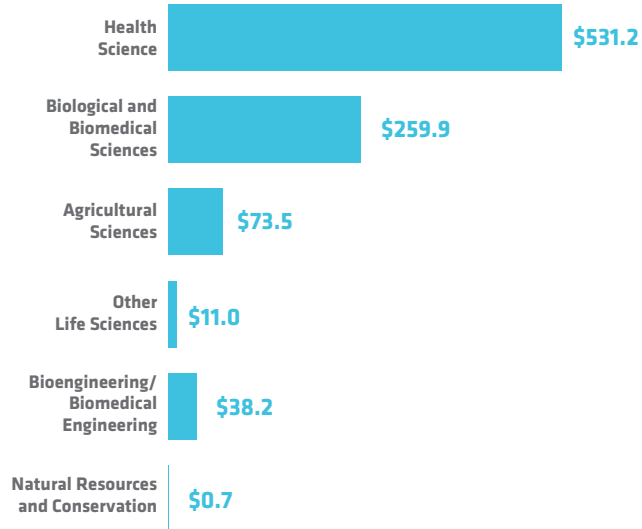
Note: U.S. employment metrics include Puerto Rico.

Bioscience Research in Wisconsin

Bioscience Academic R&D Expenditures

\$ Millions

FY 2016



NIH Awards

\$ Millions

FY 2014-2017

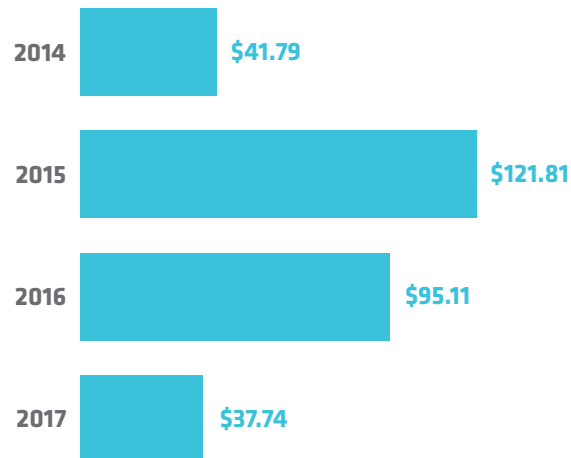


Bioscience Venture Capital in Wisconsin

Bioscience-Related Venture Capital Investments

\$ Millions

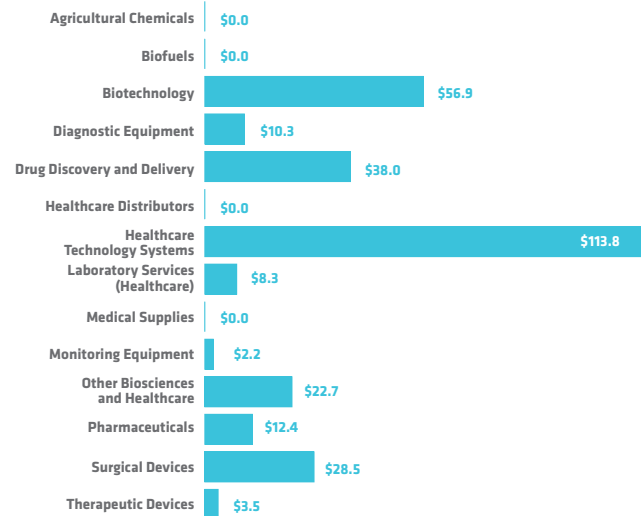
2014-2017



Bioscience-Related Venture Capital Investments by Segment

\$ Millions

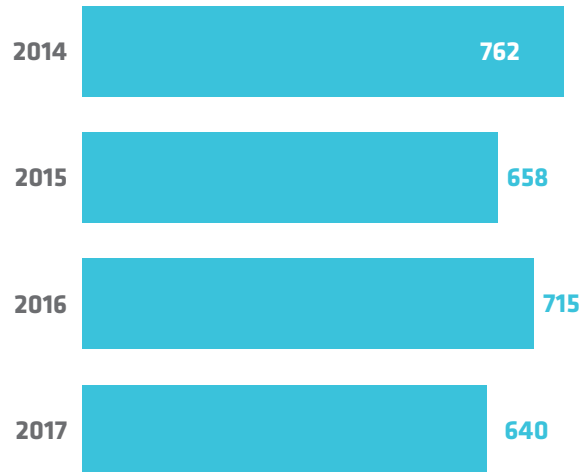
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Bioscience Patents in Wisconsin

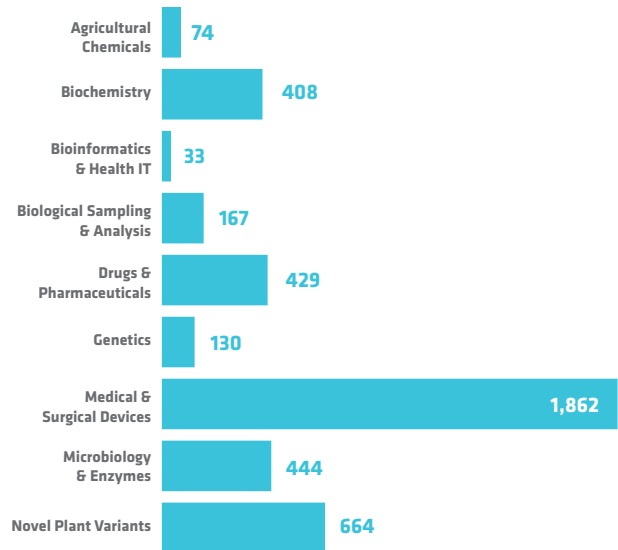
Bioscience-Related U.S. Patents

2014-2017



Bioscience-Related U.S. Patents by Segment

2014-2017



Source Notes

Employment, Establishments and Wages: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced file from IMPLAN.

Employment Multipliers: IMPLAN 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: PitchBook Data, Inc.

Patents: U.S. Patent & Trademark Office data from Clarivate Analytics' Derwent Innovation patent analysis database. For a more detailed discussion of the data and methodology used, please see the Appendix to the full national report.