



TEconomy/BIO

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

Delaware

Delaware has a highly specialized concentration in bioscience employment that reflects diverse strengths. The industry is 44 percent more concentrated in the state relative to the national average (location quotient is 1.44). Among the major bioscience industry subsectors, Delaware is considered to have a specialized employment concentration in three of the five, including: research, testing, and medical labs; medical devices and equipment; and bioscience-related distribution. Average annual wages among Delaware’s bioscience workers reached more than \$120,000 in 2014, among the highest in the nation. The focus of the state’s 999 bioscience-related patents since 2012 has primarily been in microbiology and genetics and in biochemistry.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Delaware	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	7,439	1,655,680	IV
Bioscience Industry Location Quotient	1.44	n/a	I
Bioscience Industry Establishments	422	77,283	IV
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$64,994	\$38,873,926	V
Bioscience Share of Total R&D	35%	61%	V
Bioscience R&D Per Capita	\$69	\$122	IV
NIH Funding, FY 2015			
Funding (\$ thousands)	\$36,448	\$22,869,746	V
Funding Per Capita	\$39	\$71	III
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$28.4	\$48,742.10	IV
Bioscience and Related Patents, 2012–15	999	101,026	III

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.



Industry Subsector	Delaware		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	4	0.0%	1,811	2.2%
Employment	139	126.6%	77,545	1.5%
Location Quotient	0.57		n/a	
Direct-Effect Employment Multiplier	18.9		18.4	
Total Employment Impact	2,633		1,432,125	
Average Annual Wage	\$114,005	39.4%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	207	25.4%	37,833	2.8%
Employment	1,744	-11.7%	452,325	2.3%
Location Quotient	1.23		n/a	
Direct-Effect Employment Multiplier	2.9		3.0	
Total Employment Impact	5,027		1,358,820	
Average Annual Wage	\$178,527	-1.3%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	42	16.7%	3,301	8.0%
Employment	615	-0.3%	293,353	3.2%
Location Quotient	0.67		n/a	
Direct-Effect Employment Multiplier	8.7		11.0	
Total Employment Impact	5,351		3,242,627	
Average Annual Wage	\$87,856	6.5%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	64	6.7%	7,636	5.5%
Employment	1,934	-30.0%	349,045	-0.1%
Location Quotient	1.77		n/a	
Direct-Effect Employment Multiplier	4.0		4.6	
Total Employment Impact	7,772		1,596,802	
Average Annual Wage	\$85,825	-1.9%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	105	15.7%	26,702	10.2%
Employment	3,007	9.1%	483,412	3.4%
Location Quotient	1.99		n/a	
Direct-Effect Employment Multiplier	3.4		3.1	
Total Employment Impact	10,109		1,554,719	
Average Annual Wage	\$115,476	2.7%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	422	18.6%	77,283	5.7%
Employment	7,439	-9.0%	1,655,680	2.2%
Location Quotient	1.44		n/a	
Direct-Effect Employment Multiplier	4.7		5.5	
Total Employment Impact	35,161		9,185,094	
Average Annual Wage	\$120,234	1.9%	\$94,543	7.2%
Total Private Sector				
Establishments	29,397	7.7%	8,937,672	2.7%
Employment	362,244	5.0%	116,018,300	4.4%
Average Annual Wage	\$53,251	2.8%	\$51,148	4.3%

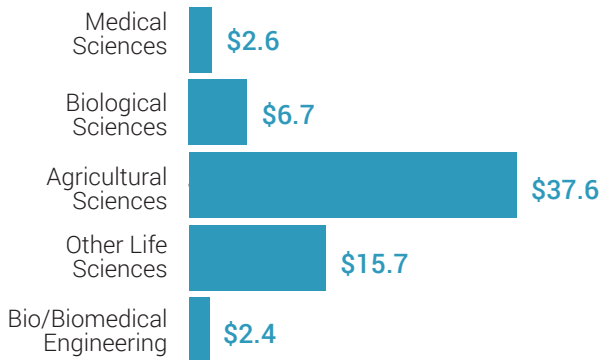
Note: U.S. employment metrics include Puerto Rico.



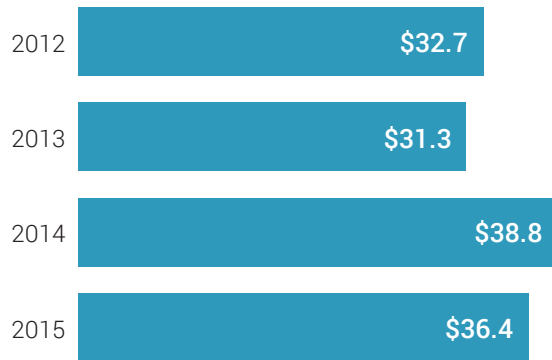
Delaware

Bioscience Research in Delaware

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014

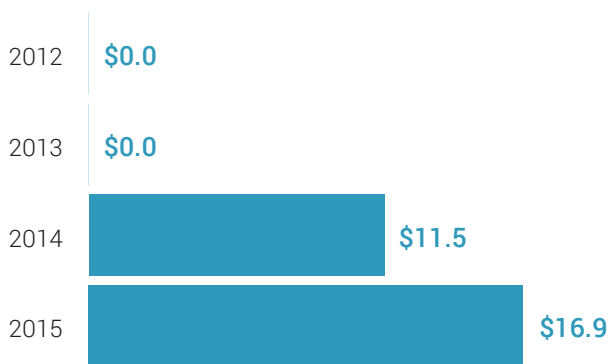


NIH Awards
\$ Millions
FY 2012-2015

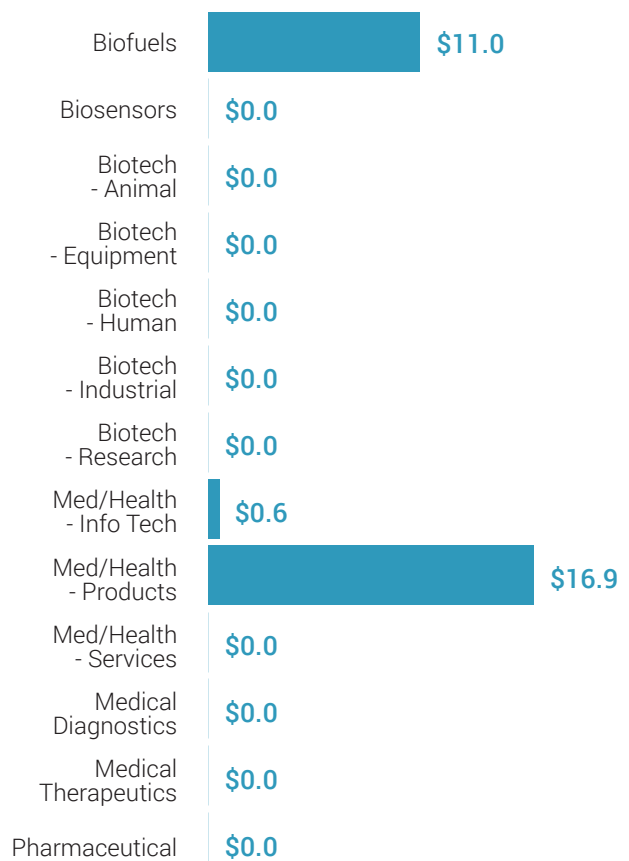


Bioscience Venture Capital in Delaware

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



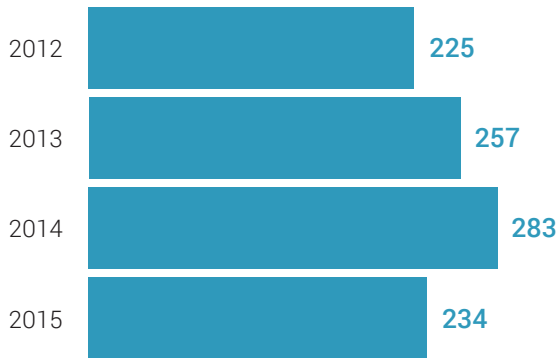
Bioscience-Related Venture Capital Investments by Segment
\$ Millions
2012-2015



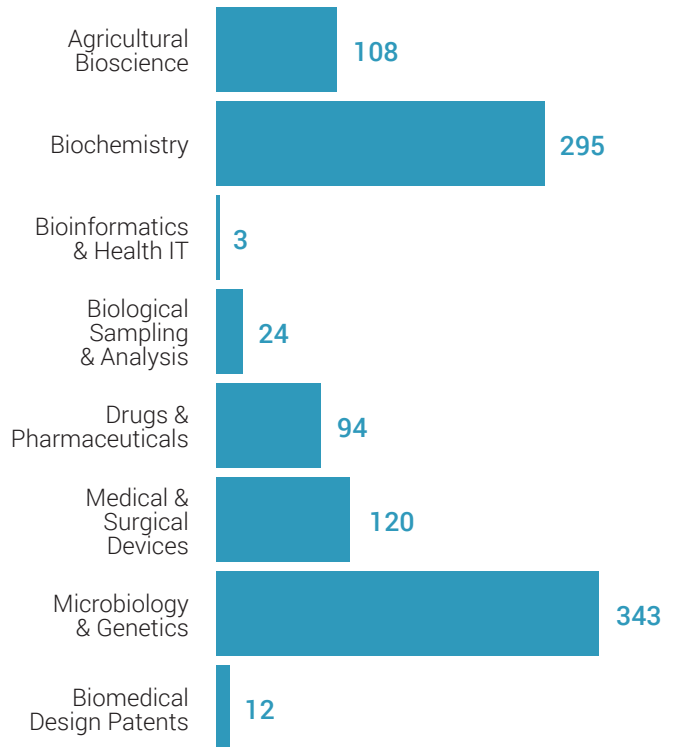


Bioscience Patents in Delaware

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.

