



TEconomy/BIO

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

New Jersey

New Jersey's bioscience industry is a national leader in its size and diverse specializations, and it is growing. State bioscience companies employed nearly 88,000 in 2014 across 2,585 business establishments. New Jersey's economy is 89 percent more concentrated in the biosciences than the national average (location quotient is 1.89) and this high degree of specialization spans four of the five major industry subsectors—drugs and pharmaceuticals; research, testing, and medical labs; bioscience-related distribution; and medical devices. This distinction is shared only with one other U.S. territory, Puerto Rico, and no other states. The industry grew in New Jersey from 2012 through 2014, adding nearly 2 percent to its employment base with job gains in three of the five subsectors. The state is among the top tier in key measures of innovation and risk capital in terms of patents issued and venture capital investments in bioscience-related companies since 2012. Bioscience patent activity has increased in recent years.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	New Jersey	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	87,614	1,655,680	I
Bioscience Industry Location Quotient	1.89	n/a	I
Bioscience Industry Establishments	2,585	77,283	I
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$438,906	\$38,873,926	III
Bioscience Share of Total R&D	41%	61%	V
Bioscience R&D Per Capita	\$49	\$122	V
NIH Funding, FY 2015			
Funding (\$ thousands)	\$225,123	\$22,869,746	III
Funding Per Capita	\$25	\$71	IV
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$1,214.4	\$48,742.10	I
Bioscience and Related Patents, 2012–15	7,052	101,026	I

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.



New Jersey

Industry Subsector	New Jersey		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	30	71.7%	1,811	2.2%
Employment	513	27.0%	77,545	1.5%
Location Quotient	0.24		n/a	
Direct-Effect Employment Multiplier	17.0		18.4	
Total Employment Impact	8,707		1,432,125	
Average Annual Wage	\$102,221	-19.3%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	1,137	4.8%	37,833	2.8%
Employment	21,446	8.1%	452,325	2.3%
Location Quotient	1.70		n/a	
Direct-Effect Employment Multiplier	3.0		3.0	
Total Employment Impact	64,679		1,358,820	
Average Annual Wage	\$143,450	11.2%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	248	7.4%	3,301	8.0%
Employment	27,459	2.7%	293,353	3.2%
Location Quotient	3.35		n/a	
Direct-Effect Employment Multiplier	11.9		11.0	
Total Employment Impact	326,697		3,242,627	
Average Annual Wage	\$168,436	10.6%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	266	-5.0%	7,636	5.5%
Employment	12,463	-1.6%	349,045	-0.1%
Location Quotient	1.28		n/a	
Direct-Effect Employment Multiplier	4.7		4.6	
Total Employment Impact	58,366		1,596,802	
Average Annual Wage	\$112,671	12.1%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	903	2.1%	26,702	10.2%
Employment	25,733	-2.5%	483,412	3.4%
Location Quotient	1.90		n/a	
Direct-Effect Employment Multiplier	3.3		3.1	
Total Employment Impact	85,016		1,554,719	
Average Annual Wage	\$128,628	0.8%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	2,585	3.5%	77,283	5.7%
Employment	87,614	1.9%	1,655,680	2.2%
Location Quotient	1.89		n/a	
Direct-Effect Employment Multiplier	6.1		5.5	
Total Employment Impact	536,688		9,185,094	
Average Annual Wage	\$142,308	8.1%	\$94,543	7.2%
Total Private Sector				
Establishments	240,451	-1.2%	8,937,672	2.7%
Employment	3,242,932	2.0%	116,018,300	4.4%
Average Annual Wage	\$60,128	3.5%	\$51,148	4.3%

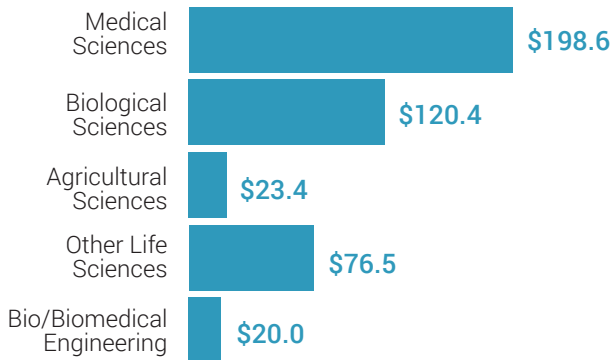
Note: U.S. employment metrics include Puerto Rico.



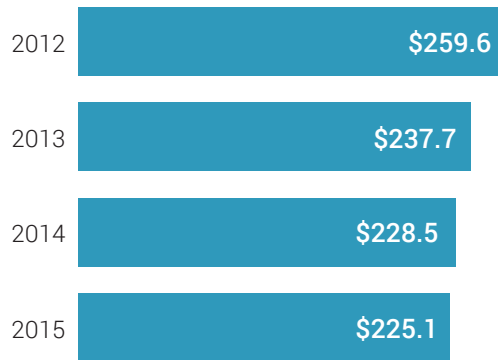
New Jersey

Bioscience Research in New Jersey

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014

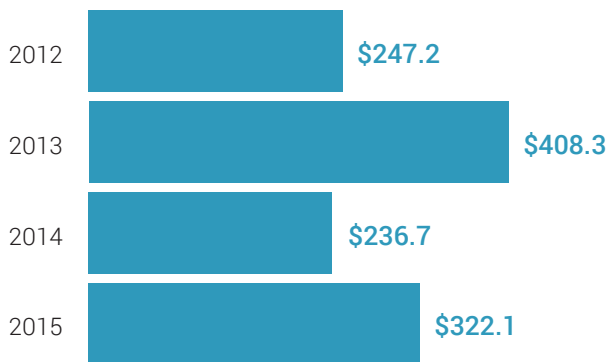


NIH Awards
\$ Millions
FY 2012-2015

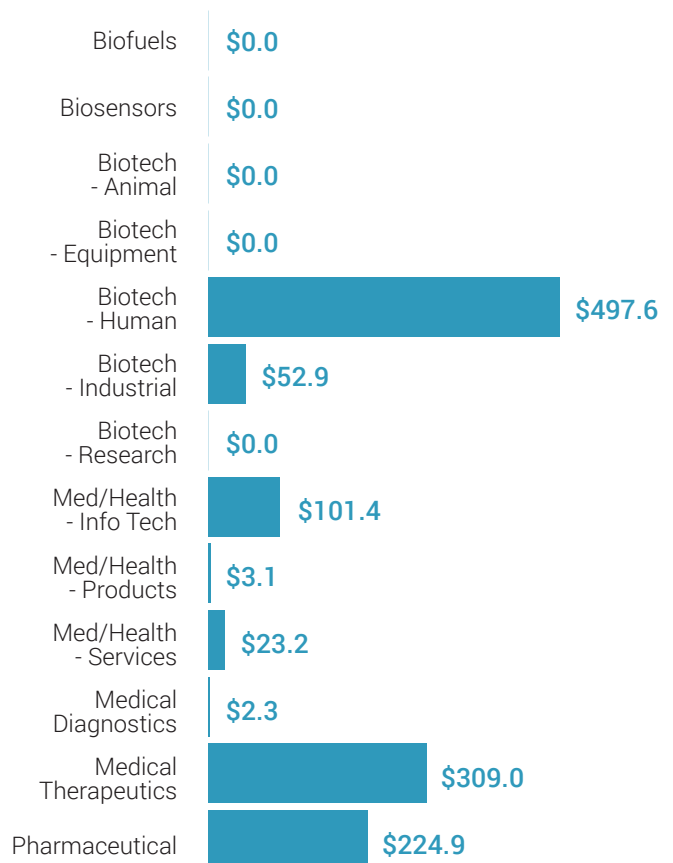


Bioscience Venture Capital in New Jersey

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



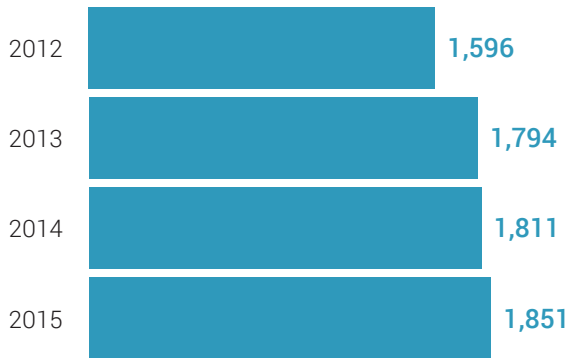
Bioscience-Related Venture Capital Investments by Segment
\$ Millions
2012-2015



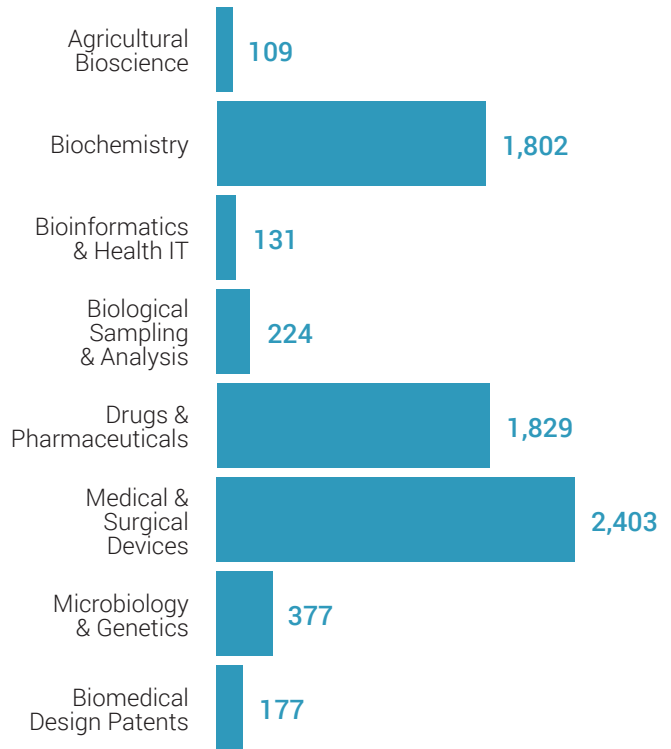


Bioscience Patents in New Jersey

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.

