



New Jersey

TECONOMY/BIO

The Bioscience Economy: Propelling Life-Saving Treatments, Supporting State & Local Communities

New Jersey's bioscience industry is among the national leaders in its size, specialized concentration of employment, and diversity of strengths. The industry experienced a modest 1 percent increase in its employment base since 2016, reaching nearly 95,000 jobs in 2018 across 3,201 business establishments. New Jersey has a high degree of industry specialization with 83 percent greater concentration of bioscience industry employment relative to the nation (location quotient is 1.83). Further, the state stands out in its breadth of industry strengths with a specialized employment concentration in four of the five industry subsectors, a distinction that is shared only with Puerto Rico. New Jersey is among the top tier of states in the innovation activities of inventors, who have been awarded 7,374 patents during the 2016-19 period in bioscience-related technology classes. Venture capital investments have steadily risen in recent years and totaled \$2.29 billion from 2016 through 2019.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	New Jersey	United States	Quintile
Bioscience Industry, 2018			
Bioscience Industry Employment	94,862	1,869,955	I
Bioscience Industry Location Quotient	1.83	n/a	I
Bioscience Industry Establishments	3,201	101,143	I
Academic Bioscience R&D Expenditures, FY 2018			
Academic Bioscience R&D (\$ thousands)	\$649,529	\$47,183,197	III
Bioscience Share of Total Academic R&D	53%	63%	IV
Academic Bioscience R&D Per Capita	\$73	\$144	V
NIH Funding, FY 2019			
Funding (\$ thousands)	\$326,694	\$30,886,675	III
Funding Per Capita	\$37	\$94	IV
Bioscience Venture Capital Investments, 2016-19 (\$ millions)	\$2,290.64	\$102,728.33	I
Bioscience-Related Patents, 2016-19	7,374	108,438	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.



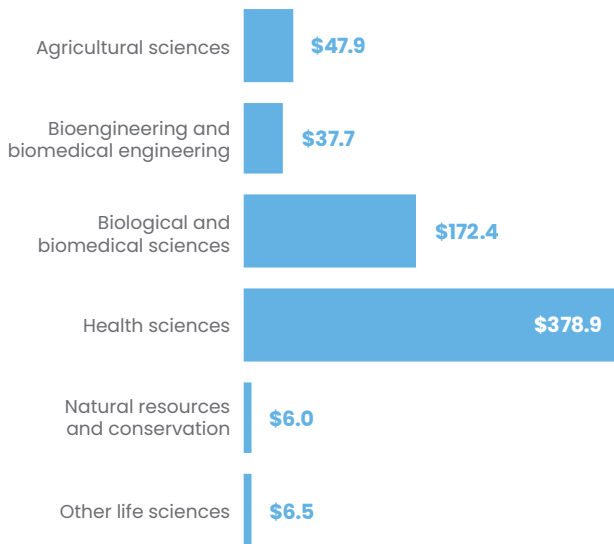
Industry Subsector	New Jersey		United States	
	2018	2016–2018 Change	2018	2016–2018 Change
Agricultural Feedstock and Industrial Biosciences				
Establishments	20	0.0%	1,785	4.4%
Employment	470	-11.4%	68,642	0.9%
Location Quotient	0.25		n/a	
Direct-Effect Employment Multiplier	6.32			
Total Employment Impact	2,968			
Average Annual Wage	\$87,328	-26.6%	\$83,151	2.7%
Bioscience-Related Distribution				
Establishments	1,468	18.7%	51,582	31.8%
Employment	23,850	8.3%	545,055	16.1%
Location Quotient	1.58		n/a	
Direct-Effect Employment Multiplier	4.38			
Total Employment Impact	104,353			
Average Annual Wage	\$138,841	-5.1%	\$105,905	13.1%
Drugs and Pharmaceuticals				
Establishments	304	13.4%	4,451	18.6%
Employment	21,950	-3.9%	308,357	3.1%
Location Quotient	2.57		n/a	
Direct-Effect Employment Multiplier	5.14			
Total Employment Impact	112,851			
Average Annual Wage	\$142,809	-7.1%	\$113,544	-0.2%
Medical Devices and Equipment				
Establishments	298	-0.7%	8,753	8.3%
Employment	13,269	3.4%	378,431	5.3%
Location Quotient	1.26		n/a	
Direct-Effect Employment Multiplier	2.99			
Total Employment Impact	39,731			
Average Annual Wage	\$141,531	18.4%	\$90,541	6.8%
Research, Testing, and Medical Laboratories				
Establishments	1,111	3.6%	34,572	4.7%
Employment	35,324	-0.8%	569,470	4.0%
Location Quotient	2.24		n/a	
Direct-Effect Employment Multiplier	2.72			
Total Employment Impact	96,014			
Average Annual Wage	\$158,305	0.8%	\$120,320	12.5%
Total Bioscience Industry				
Establishments	3,201	10.5%	101,143	18.0%
Employment	94,862	1.1%	1,869,955	7.2%
Location Quotient	1.83		n/a	
Direct-Effect Employment Multiplier	3.75			
Total Employment Impact	355,917			
Average Annual Wage	\$147,128	-0.9%	\$107,610	8.7%
Total Private Sector				
Establishments	264,634	1.9%	9,776,674	3.1%
Employment	3,473,046	2.7%	125,195,944	3.3%
Average Annual Wage	\$65,330	4.7%	\$57,043	6.9%

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

Bioscience Research in New Jersey

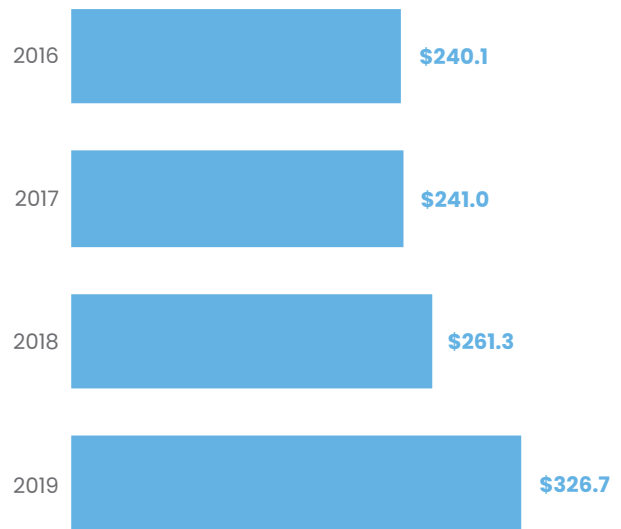
Bioscience Academic R&D Expenditures

\$ Millions, FY 2018



NIH Awards

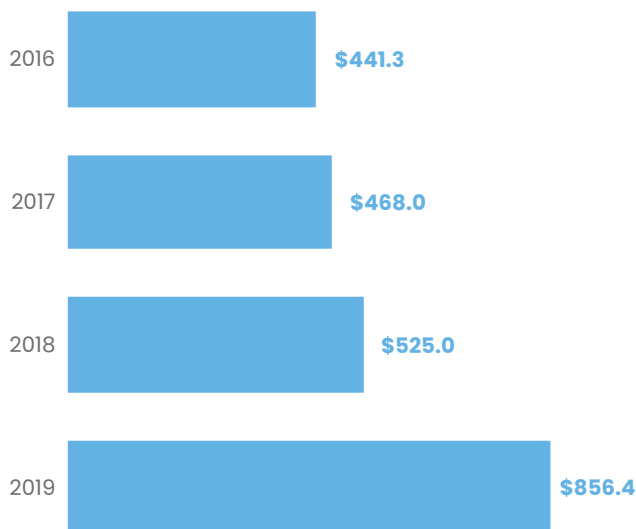
\$ Millions, FY 2016-2019



Bioscience Venture Capital in New Jersey

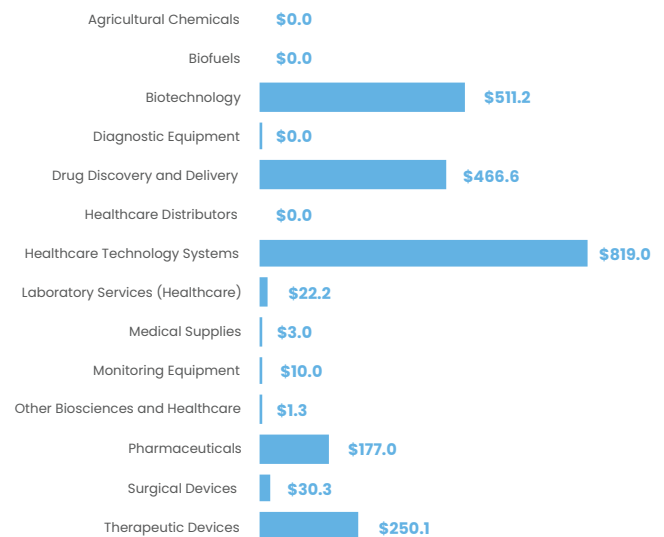
Bioscience-Related Venture Capital Investments

\$ Millions, 2016-2019



Bioscience-Related Venture Capital Investments by Segment

\$ Millions, 2016-2019

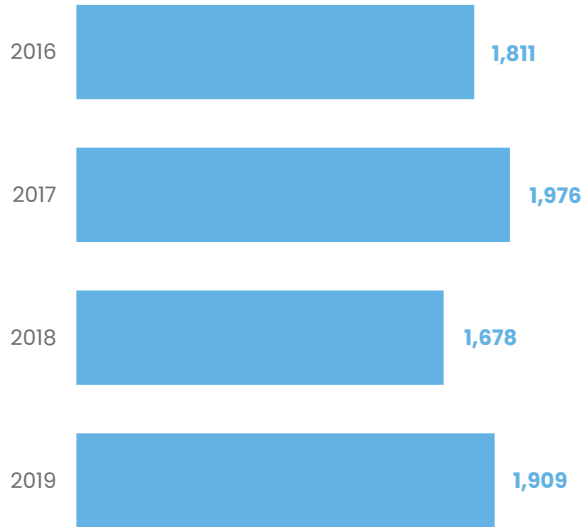




Bioscience Patents in New Jersey

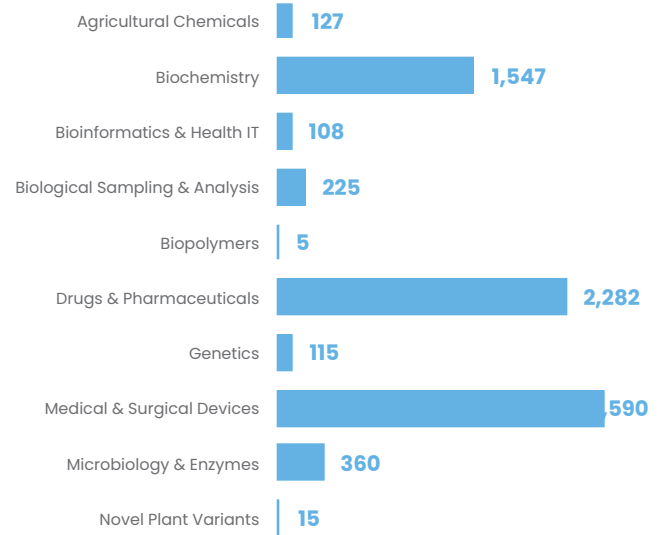
Bioscience-Related U.S. Patents

2016-2019



Bioscience-Related U.S. Patents by Segment

2016-2019



Source Notes

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

Employment Multipliers: state-level Input/Output models from IMPLAN Group, LLC.

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.

