



TEconomy/BIO

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

Rhode Island

Rhode Island's bioscience industry is growing and in 2014 employed more than 5,200 in 300 business establishments across the state. The state has a specialized employment concentration in two of its major industry subsectors—drugs and pharmaceuticals and medical devices and equipment. Rhode Island's bioscience companies have increased their employment base by 16.5 percent since 2012, with job gains coming from all five subsectors, and particularly large growth in medical devices (up 45 percent). On a per capita basis, Rhode Island is especially concentrated in academic bioscience R&D and in NIH funding.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Rhode Island	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	5,248	1,655,680	V
Bioscience Industry Location Quotient	0.91	n/a	II
Bioscience Industry Establishments	300	77,283	V
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$171,455	\$38,873,926	IV
Bioscience Share of Total R&D	45%	61%	V
Bioscience R&D Per Capita	\$163	\$122	I
NIH Funding, FY 2015			
Funding (\$ thousands)	\$132,453	\$22,869,746	III
Funding Per Capita	\$125	\$71	I
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$215.5	\$48,742.10	III
Bioscience and Related Patents, 2012–15	600	101,026	IV

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.



Rhode Island

Industry Subsector	Rhode Island		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	1	288.3%	1,811	2.2%
Employment	84	3620.3%	77,545	1.5%
Location Quotient	0.31		n/a	
Direct-Effect Employment Multiplier	22.5		18.4	
Total Employment Impact	1,879		1,432,125	
Average Annual Wage	\$39,279	2696.3%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	136	9.1%	37,833	2.8%
Employment	1,179	3.3%	452,325	2.3%
Location Quotient	0.75		n/a	
Direct-Effect Employment Multiplier	2.9		3.0	
Total Employment Impact	3,452		1,358,820	
Average Annual Wage	\$81,811	6.2%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	13	8.3%	3,301	8.0%
Employment	1,438	3.4%	293,353	3.2%
Location Quotient	1.41		n/a	
Direct-Effect Employment Multiplier	12.2		11.0	
Total Employment Impact	17,487		3,242,627	
Average Annual Wage	\$116,973	12.5%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	38	5.6%	7,636	5.5%
Employment	1,630	45.2%	349,045	-0.1%
Location Quotient	1.34		n/a	
Direct-Effect Employment Multiplier	4.4		4.6	
Total Employment Impact	7,174		1,596,802	
Average Annual Wage	\$65,247	10.9%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	112	12.1%	26,702	10.2%
Employment	917	8.3%	483,412	3.4%
Location Quotient	0.54		n/a	
Direct-Effect Employment Multiplier	2.9		3.1	
Total Employment Impact	2,683		1,554,719	
Average Annual Wage	\$65,486	8.4%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	300	10.1%	77,283	5.7%
Employment	5,248	16.5%	1,655,680	2.2%
Location Quotient	0.91		n/a	
Direct-Effect Employment Multiplier	6.0		5.5	
Total Employment Impact	31,711		9,185,094	
Average Annual Wage	\$82,772	6.6%	\$94,543	7.2%
Total Private Sector				
Establishments	35,048	1.4%	8,937,672	2.7%
Employment	404,468	3.2%	116,018,300	4.4%
Average Annual Wage	\$47,443	6.0%	\$51,148	4.3%

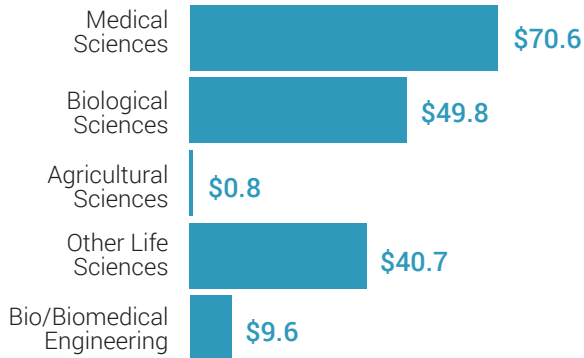
Note: U.S. employment metrics include Puerto Rico.



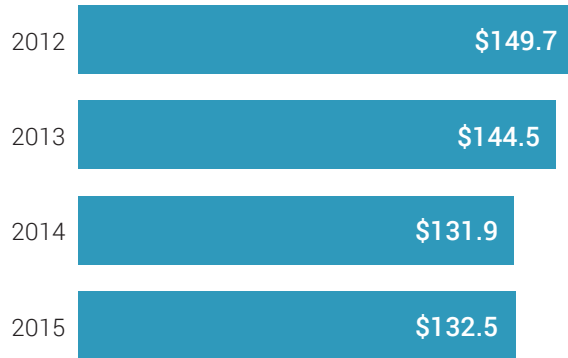
Rhode Island

Bioscience Research in Rhode Island

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014

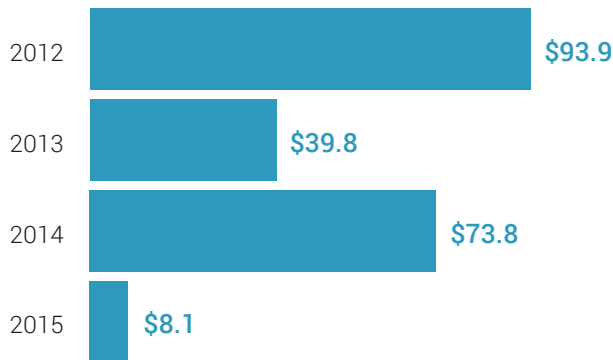


NIH Awards
\$ Millions
FY 2012-2015

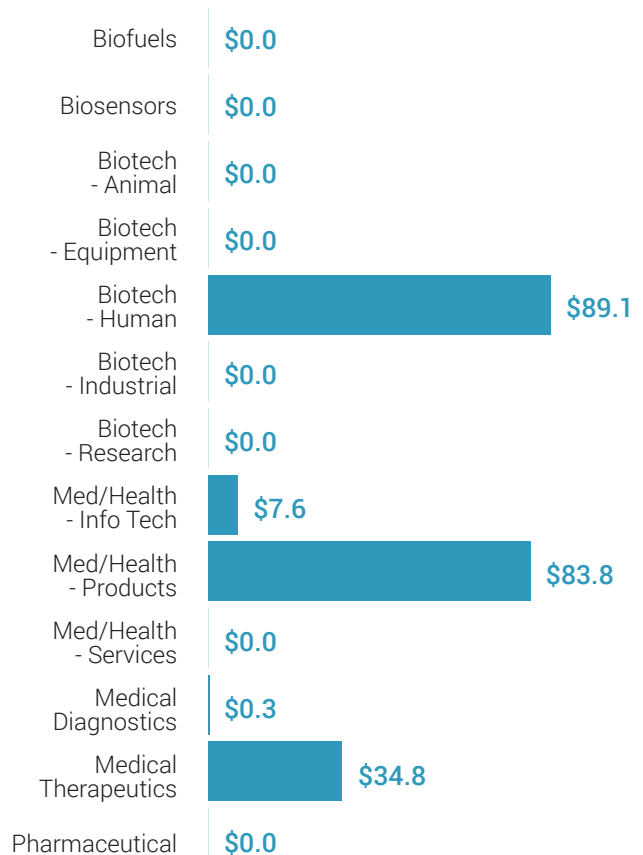


Bioscience Venture Capital in Rhode Island

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



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

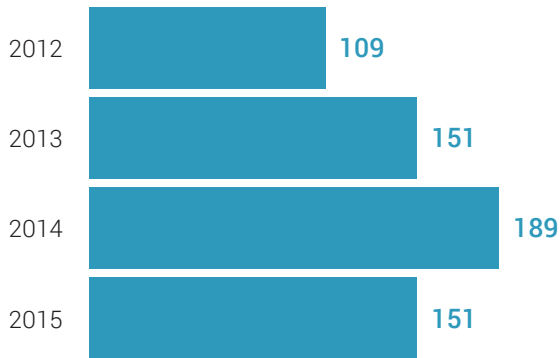




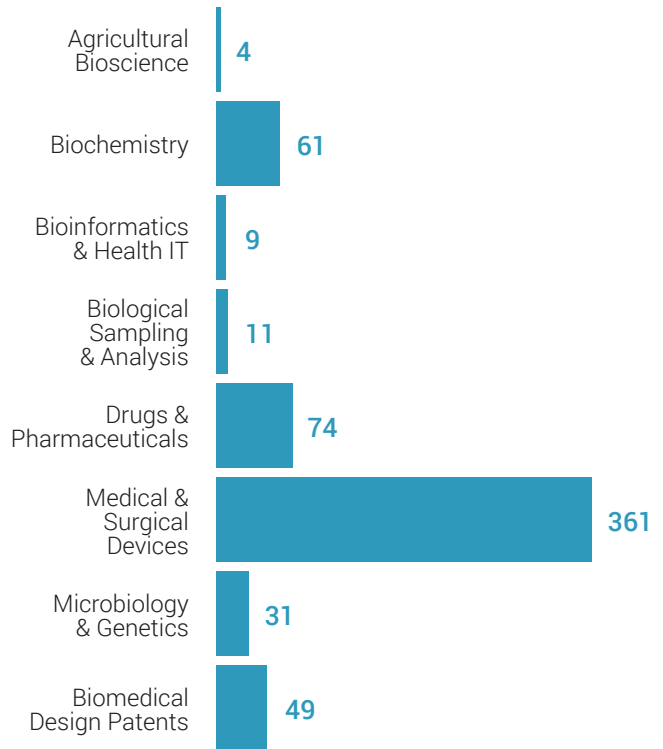
Rhode Island

Bioscience Patents in Rhode Island

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.

