



# Rhode Island

The U.S. Bioscience Industry: Fostering Innovation and Driving America's Economy Forward

Rhode Island's bioscience industry has experienced strong employment growth since 2018, increasing by nearly 25 percent and reaching 5,773 jobs in 2021, with firms operating 666 business establishments across the state. All five of the state's bioscience industry subsectors contributed to the overall job gains. Rhode Island has a specialized employment concentration in medical devices and equipment (location quotient is 1.55), as well as a high concentration in pharmaceuticals. Rhode Island has a strong concentration in NIH awards to its research institutions with per capita funding at more than twice the national average. Its receipt of NIH funding has steadily risen in recent years and totaled nearly \$244 million in 2021. This federal funding helps to fuel the \$172 million in bioscience-related R&D expenditures at the state's research universities. Venture capital investments in Rhode Island bioscience companies increased in 2021 and totaled nearly \$40 million.

## Bioscience Performance Metrics

### Summary of State Performance in Selected Bioscience-related Metrics

Metric	Rhode Island	United States	Quintile
<b>Bioscience Industry, 2021</b>			
Bioscience Industry Employment	5,773	2,135,704	V
Bioscience Industry Location Quotient	0.82	n/a	III
Bioscience Industry Establishments	666	127,389	V
<b>Academic Bioscience R&amp;D Expenditures, FY 2020</b>			
Bioscience R&D (\$ thousands)	\$172,342	\$51,108,737	IV
Bioscience Share of Total R&D	47%	63%	V
Bioscience R&D Per Capita	\$157	\$154	II
<b>NIH Funding, FY 2021</b>			
Funding (\$ thousands)	\$243,786	\$34,751,109	III
Funding Per Capita	\$223	\$105	I
<b>Bioscience Venture Capital Investments, 2018-21 (\$ millions)</b>			
	\$72.79	\$197,674.54	IV
<b>Bioscience-Related Patents, 2018-21</b>			
	862	153,072	III

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.

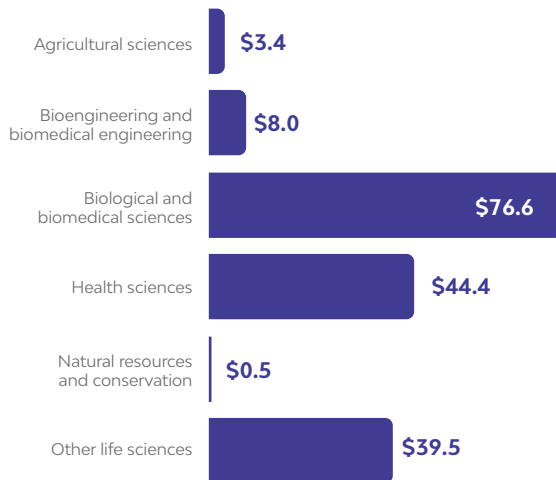
Industry Subsector		Rhode Island		United States	
		2021	2018–2021 Change	2021	2018–2021 Change
Agricultural Feedstock and Industrial Biosciences	Establishments	1	0.0%	1,948	10.0%
	Employment	12	548.6%	69,573	1.9%
	<i>Location Quotient</i>	0.05		n/a	
	Average Annual Wage	\$58,294	26.6%	\$91,989	13.1%
Bioscience- Related Distribution	Establishments	358	41.1%	62,697	14.7%
	Employment	1,459	24.6%	602,589	6.6%
	<i>Location Quotient</i>	0.74		n/a	
	Average Annual Wage	\$116,700	21.6%	\$121,606	15.0%
Medical Devices and Equipment	Establishments	50	10.6%	10,268	17.4%
	Employment	2,022	38.2%	398,847	5.5%
	<i>Location Quotient</i>	1.55		n/a	
	Average Annual Wage	\$67,563	-12.5%	\$98,481	8.7%
Pharmaceuticals	Establishments	26	38.7%	5,973	34.7%
	Employment	1,320	10.4%	344,839	11.9%
	<i>Location Quotient</i>	1.17		n/a	
	Average Annual Wage	\$116,635	-0.8%	\$126,153	10.3%
Research, Testing, and Medical Laboratories	Establishments	231	76.6%	46,503	34.5%
	Employment	959	19.9%	719,856	19.3%
	<i>Location Quotient</i>	0.41		n/a	
	Average Annual Wage	\$93,228	35.9%	\$147,396	22.0%
Total Bioscience Industry	Establishments	666	48.2%	127,389	22.3%
	Employment	5,773	24.6%	2,135,704	11.0%
	<i>Location Quotient</i>	0.82		n/a	
	Average Annual Wage	\$95,450	5.0%	\$125,750	16.4%
Total Private Sector	Establishments	42,096	12.9%	10,665,643	9.3%
	Employment	404,326	-4.1%	123,376,557	-1.5%
	<i>Location Quotient</i>	1.00		n/a	
	Average Annual Wage	\$60,663	17.3%	\$67,826	18.9%

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

## Bioscience Research in Rhode Island

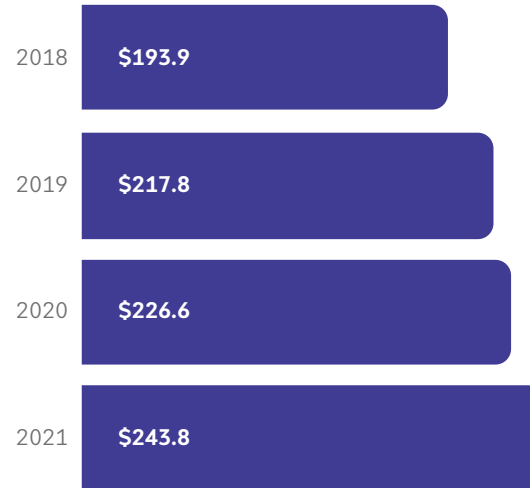
### Bioscience Academic R&D Expenditures

\$ Millions, FY 2020



### NIH Awards

\$ Millions, FY 2018-2021



## Bioscience Venture Capital in Rhode Island

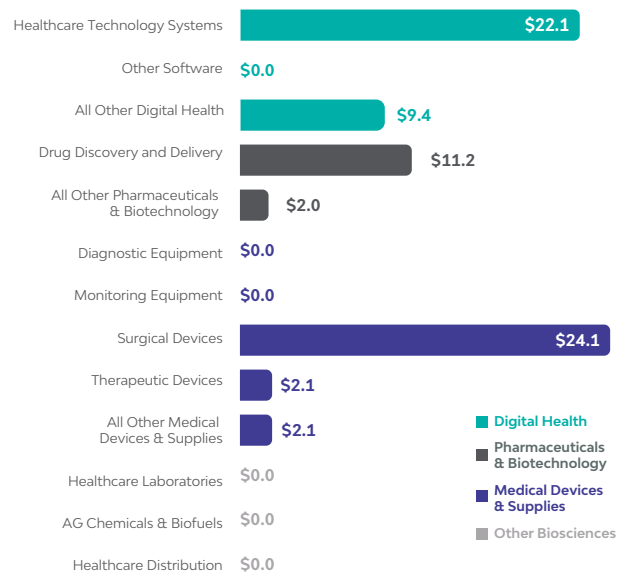
### Bioscience-Related Venture Capital Investments

\$ Millions, 2018-2021



### Bioscience-Related Venture Capital Investments by Segment

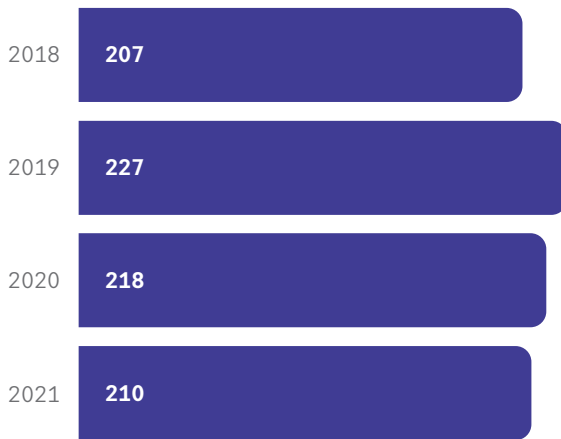
\$ Millions, 2018-2021



## Bioscience Patents in Rhode Island

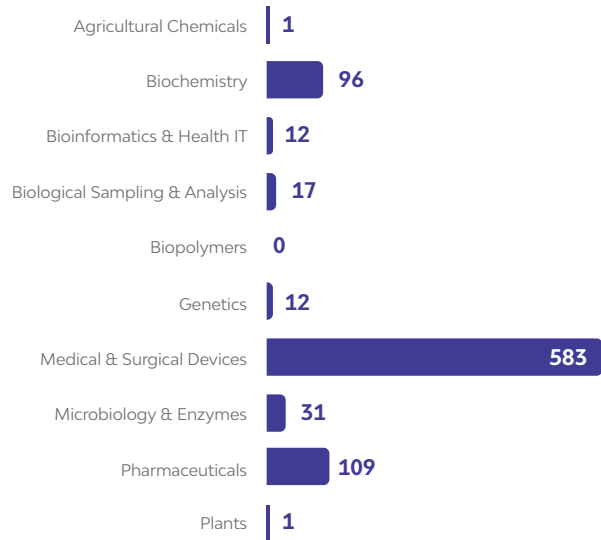
### Bioscience-Related U.S. Patents

2018-2021



### Bioscience-Related U.S. Patents by Segment

2018-2021



## Source Notes

**Employment, Establishments and Wages:** U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced by Lightcast (Datarun 2022.3).

**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.*