



TEconomy/BIO

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

Maine

Maine’s growing bioscience industry employed nearly 6,400 in 205 business establishments across the state in 2014. Maine has a specialized employment concentration in drugs and pharmaceuticals that is 35 percent greater than the national average (location quotient of 1.35). The state is also highly concentrated (and nearly specialized) in research, testing, and medical labs. Industry employment growth has been led by gains in drugs and pharmaceuticals and in bioscience-related distribution which have increased by 7 percent and 4 percent, respectively, since 2012. State inventors have been issued 242 bioscience-related patents since 2012. NIH awards to Maine institutions increased to \$84 million in 2015.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Maine	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	6,363	1,655,680	IV
Bioscience Industry Location Quotient	0.90	n/a	III
Bioscience Industry Establishments	205	77,283	V
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$55,071	\$38,873,926	V
Bioscience Share of Total R&D	44%	61%	V
Bioscience R&D Per Capita	\$41	\$122	V
NIH Funding, FY 2015			
Funding (\$ thousands)	\$84,109	\$22,869,746	IV
Funding Per Capita	\$63	\$71	II
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$17.1	\$48,742.10	IV
Bioscience and Related Patents, 2012–15	242	101,026	V

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.



Maine

Industry Subsector	Maine		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	8	0.0%	1,811	2.2%
Employment	78	-7.1%	77,545	1.5%
Location Quotient	0.24		n/a	
Direct-Effect Employment Multiplier	16.4		18.4	
Total Employment Impact	1,282		1,432,125	
Average Annual Wage	\$49,344	31.4%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	85	-8.2%	37,833	2.8%
Employment	1,181	4.0%	452,325	2.3%
Location Quotient	0.61		n/a	
Direct-Effect Employment Multiplier	3.0		3.0	
Total Employment Impact	3,497		1,358,820	
Average Annual Wage	\$62,171	6.0%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	21	-4.5%	3,301	8.0%
Employment	1,689	7.0%	293,353	3.2%
Location Quotient	1.35		n/a	
Direct-Effect Employment Multiplier	10.5		11.0	
Total Employment Impact	17,657		3,242,627	
Average Annual Wage	\$99,753	7.4%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	23	-11.5%	7,636	5.5%
Employment	1,005	-0.2%	349,045	-0.1%
Location Quotient	0.68		n/a	
Direct-Effect Employment Multiplier	4.2		4.6	
Total Employment Impact	4,252		1,596,802	
Average Annual Wage	\$47,104	4.9%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	68	-10.6%	26,702	10.2%
Employment	2,410	1.6%	483,412	3.4%
Location Quotient	1.17		n/a	
Direct-Effect Employment Multiplier	3.0		3.1	
Total Employment Impact	7,280		1,554,719	
Average Annual Wage	\$51,760	-0.4%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	205	-8.7%	77,283	5.7%
Employment	6,363	3.0%	1,655,680	2.2%
Location Quotient	0.90		n/a	
Direct-Effect Employment Multiplier	5.4		5.5	
Total Employment Impact	34,116		9,185,094	
Average Annual Wage	\$65,666	5.4%	\$94,543	7.2%
Total Private Sector				
Establishments	46,080	-0.8%	8,937,672	2.7%
Employment	494,701	1.7%	116,018,300	4.4%
Average Annual Wage	\$39,958	4.9%	\$51,148	4.3%

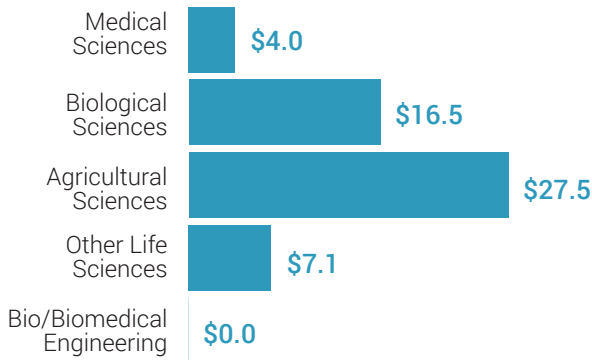
Note: U.S. employment metrics include Puerto Rico.



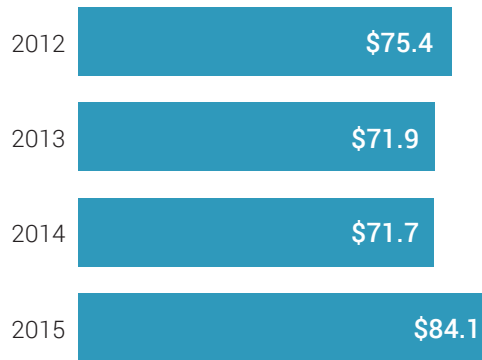
Maine

Bioscience Research in Maine

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014

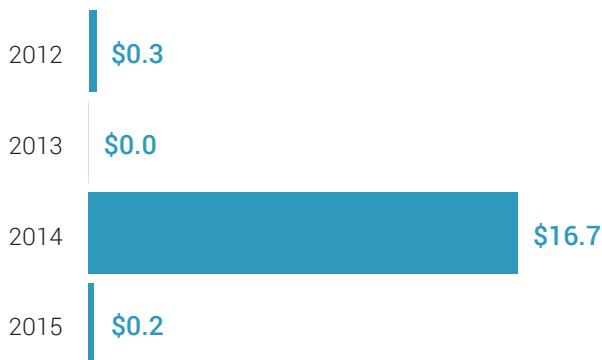


NIH Awards
\$ Millions
FY 2012-2015

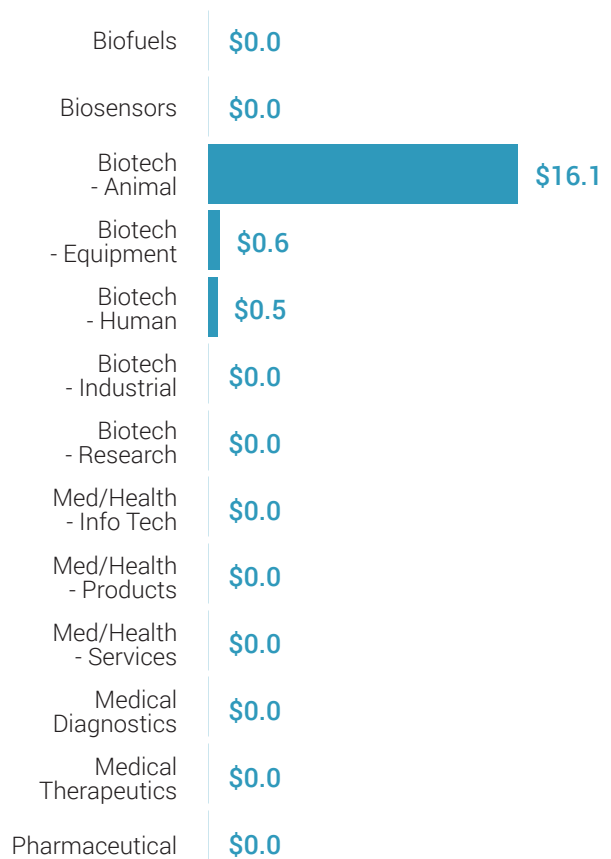


Bioscience Venture Capital in Maine

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



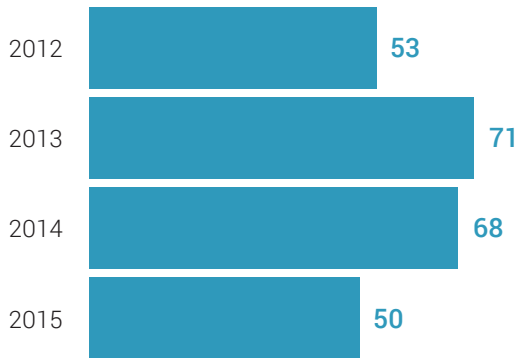
Bioscience-Related Venture
Capital Investments by Segment
\$ Millions
2012-2015



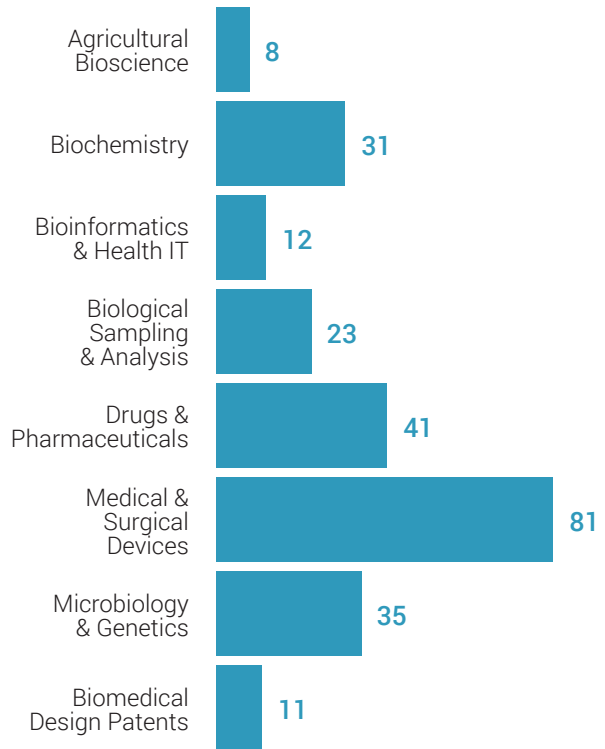


Bioscience Patents in Maine

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.

