



TEconomy/BIO

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

Nebraska

Nebraska has a specialized and growing bioscience industry with employment reaching nearly 16,000 jobs in 2014 across 1,032 business establishments. The state has grown its bioscience industry employment base by 2.8 percent since 2012 with job gains coming from within the agricultural feedstock and chemicals and bioscience-related distribution subsectors. Nebraska's bioscience jobs are 42 percent more concentrated across the state's economy relative to the national average (location quotient is 1.42). Nebraska has a specialization in three of five major bioscience subsectors—agricultural feedstock and chemicals; bioscience-related distribution; and medical devices and equipment. Nebraska's academic bioscience R&D activity is highly concentrated, with its research universities spending nearly \$298 million in 2014 which equates to a much higher than average R&D expenditure on a per capita basis. Bioscience patents totaled 493 from 2012 through 2015 and have been increasing in Nebraska during this period.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Nebraska	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	15,906	1,655,680	III
Bioscience Industry Location Quotient	1.42	n/a	I
Bioscience Industry Establishments	1,032	77,283	III
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$297,759	\$38,873,926	IV
Bioscience Share of Total R&D	70%	61%	II
Bioscience R&D Per Capita	\$158	\$122	I
NIH Funding, FY 2015			
Funding (\$ thousands)	\$89,753	\$22,869,746	IV
Funding Per Capita	\$47	\$71	III
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$44.8	\$48,742.10	IV
Bioscience and Related Patents, 2012–15	493	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.



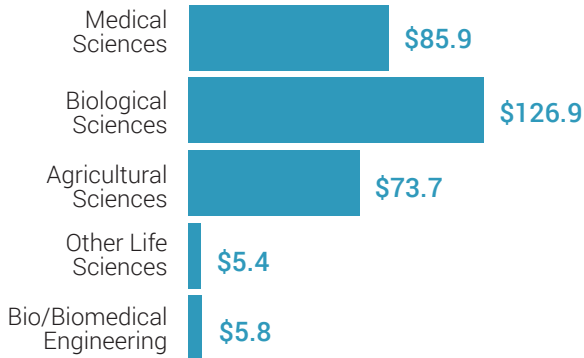
Industry Subsector	Nebraska		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	53	1.9%	1,811	2.2%
Employment	2,758	4.3%	77,545	1.5%
Location Quotient	5.24		n/a	
Direct-Effect Employment Multiplier	17.9		18.4	
Total Employment Impact	49,273		1,432,125	
Average Annual Wage	\$63,400	10.2%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	831	10.6%	37,833	2.8%
Employment	6,018	9.3%	452,325	2.3%
Location Quotient	1.96		n/a	
Direct-Effect Employment Multiplier	2.9		3.0	
Total Employment Impact	17,207		1,358,820	
Average Annual Wage	\$63,534	6.3%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	21	0.0%	3,301	8.0%
Employment	1,725	-2.7%	293,353	3.2%
Location Quotient	0.87		n/a	
Direct-Effect Employment Multiplier	9.9		11.0	
Total Employment Impact	17,155		3,242,627	
Average Annual Wage	\$72,841	3.8%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	27	3.8%	7,636	5.5%
Employment	3,889	-2.5%	349,045	-0.1%
Location Quotient	1.64		n/a	
Direct-Effect Employment Multiplier	4.3		4.6	
Total Employment Impact	16,663		1,596,802	
Average Annual Wage	\$53,024	5.5%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	100	14.4%	26,702	10.2%
Employment	1,515	-2.5%	483,412	3.4%
Location Quotient	0.46		n/a	
Direct-Effect Employment Multiplier	2.9		3.1	
Total Employment Impact	4,451		1,554,719	
Average Annual Wage	\$60,916	-1.6%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	1,032	10.0%	77,283	5.7%
Employment	15,906	2.8%	1,655,680	2.2%
Location Quotient	1.42		n/a	
Direct-Effect Employment Multiplier	5.6		5.5	
Total Employment Impact	88,918		9,185,094	
Average Annual Wage	\$61,701	5.7%	\$94,543	7.2%
Total Private Sector				
Establishments	66,693	5.9%	8,937,672	2.7%
Employment	786,812	3.2%	116,018,300	4.4%
Average Annual Wage	\$40,640	5.1%	\$51,148	4.3%

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



Bioscience Research in Nebraska

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014

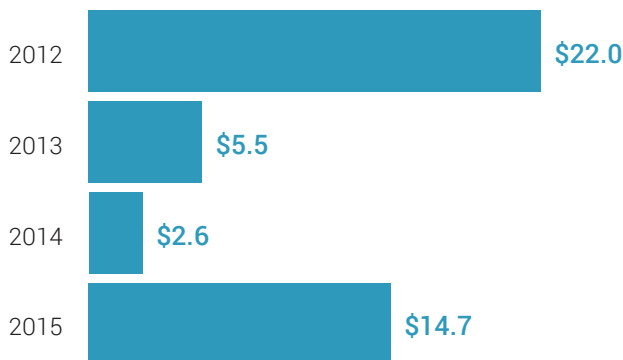


NIH Awards
\$ Millions
FY 2012-2015

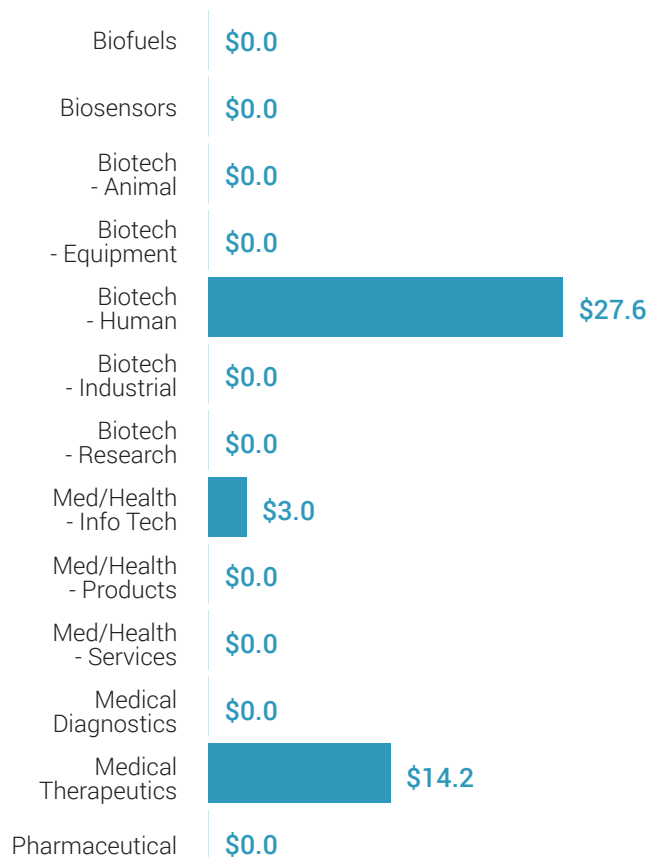


Bioscience Venture Capital in Nebraska

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



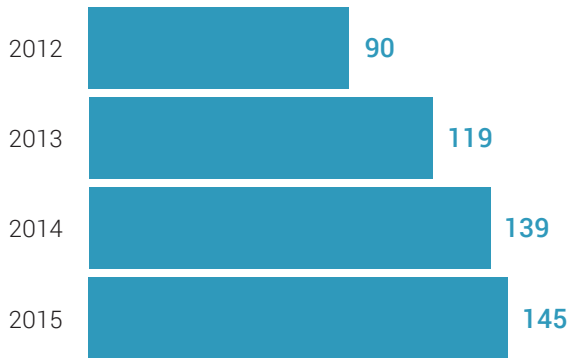
Bioscience-Related Venture
Capital Investments by Segment
\$ Millions
2012-2015



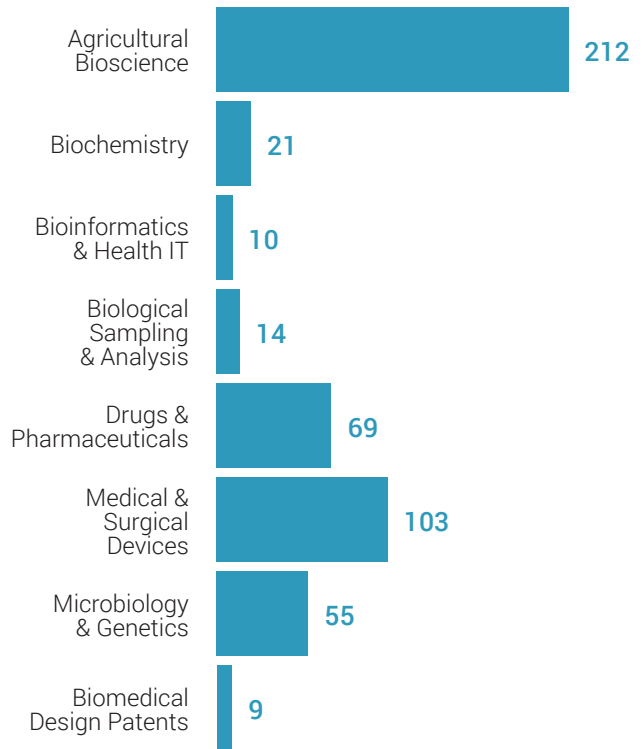


Bioscience Patents in Nebraska

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.

