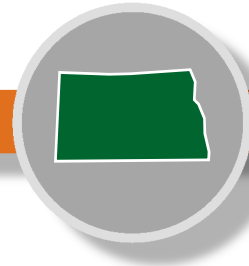


North Dakota



North Dakota has a growing bioscience industry with just over 4,000 employed in 2012 across 447 business establishments around the state. The state experienced a nearly 28 percent increase in bioscience industry employment from 2007 through 2012, driven largely by job gains in its largest component subsector—bioscience-related distribution. North Dakota has a specialization in two subsectors—bioscience-related distribution and agricultural feedstock and chemicals. The state’s research universities conducted \$102 million in bioscience-related R&D in 2012 which translates into a highly concentrated research base relative to the state’s population—\$141 in bioscience R&D per capita compared with \$119 for the U.S. average.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	North Dakota	United States	Quintile
Bioscience Industry, 2012			
Bioscience Industry Employment	4,004	1,619,746	V
Bioscience Industry Location Quotient	0.80	n/a	III
Bioscience Industry Establishments	447	73,088	IV
Academic Bioscience R&D Expenditures, FY 2012			
Bioscience R&D (\$ thousands)	\$102,313	\$38,139,876	IV
Bioscience Share of Total R&D	48%	61%	IV
Bioscience R&D Per Capita	\$141	\$119	II
NIH Funding, FY 2013			
Funding (\$ thousands)	\$16,749	\$22,293,255	V
Funding Per Capita	\$23	\$70	IV
Bioscience Venture Capital Investments, 2009–13 (\$ millions)	\$40.1	\$49,401.7	IV
Bioscience and Related Patents, 2009–13	53	100,238	V

State ranking figures for bioscience performance metrics are calculated as quintiles, where I = top quintile, III = middle quintile, and V = bottom quintile.

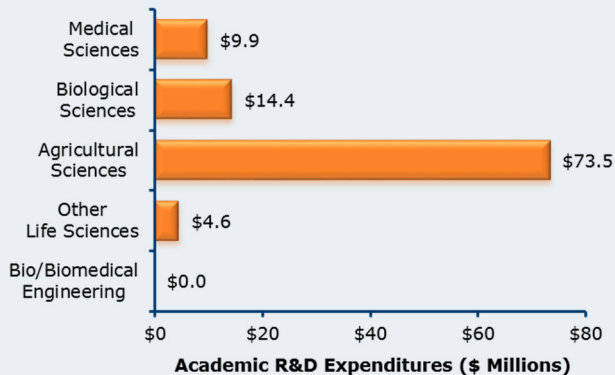
For source notes, see end of State Profile.

Industry Subsector	North Dakota		United States	
	2012	2007–2012 Change	2012	2007–2012 Change
Agricultural Feedstock & Chemicals				
Establishments	14	16.7%	1,772	5.2%
Employment	469	-0.4%	76,404	-1.0%
Location Quotient	1.98		n/a	
Direct-Effect Employment Multiplier	15.0		18.1	
Total Employment Impact	7,058		1,382,637	
Average Annual Wage	\$59,969	16.5%	\$75,828	14.2%
Bioscience-Related Distribution				
Establishments	361	21.2%	36,793	1.4%
Employment	2,689	26.7%	442,016	-3.9%
Location Quotient	1.75		n/a	
Direct-Effect Employment Multiplier	2.3		2.7	
Total Employment Impact	6,074		1,199,015	
Average Annual Wage	\$60,028	30.0%	\$85,188	11.5%
Drugs and Pharmaceuticals				
Establishments	2	n/a	3,057	12.0%
Employment	40	n/a	284,331	-10.9%
Location Quotient	0.05		n/a	
Direct-Effect Employment Multiplier	6.3		9.9	
Total Employment Impact	251		2,673,265	
Average Annual Wage	\$46,662	n/a	\$106,576	13.9%
Medical Devices and Equipment				
Establishments	5	-16.7%	7,235	12.0%
Employment	130	165.3%	349,432	1.4%
Location Quotient	0.12		n/a	
Direct-Effect Employment Multiplier	2.6		3.9	
Total Employment Impact	337		1,318,459	
Average Annual Wage	\$48,360	49.5%	\$75,695	10.7%
Research, Testing, and Medical Laboratories				
Establishments	65	63.8%	24,231	31.0%
Employment	677	37.1%	467,563	9.7%
Location Quotient	0.47		n/a	
Direct-Effect Employment Multiplier	2.1		2.7	
Total Employment Impact	1,410		1,284,196	
Average Annual Wage	\$47,662	28.9%	\$91,248	15.9%
Total Bioscience Industry				
Establishments	447	25.7%	73,088	11.4%
Employment	4,004	27.7%	1,619,746	-0.4%
Location Quotient	0.80		n/a	
Direct-Effect Employment Multiplier	3.6		4.9	
Total Employment Impact	14,394		7,857,572	
Average Annual Wage	\$57,421	26.8%	\$88,202	12.8%
Total Private Sector				
Establishments	27,263	18.9%	8,699,564	-0.5%
Employment	344,563	24.1%	111,137,206	-3.1%
Average Annual Wage	\$46,821	42.7%	\$49,130	11.1%

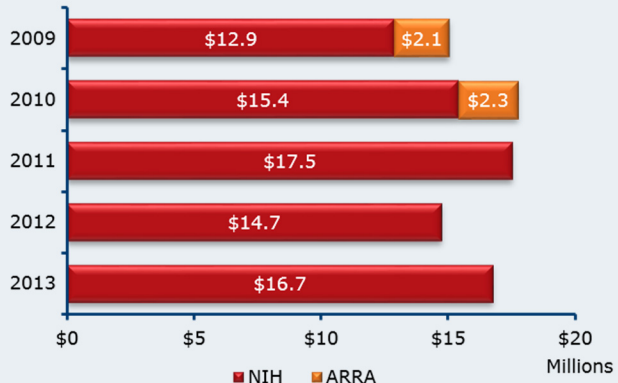
Note: U.S. employment metrics include Puerto Rico. Estimates of total impacts do not include Puerto Rico.

Bioscience Research in North Dakota

Bioscience Academic R&D Expenditures, FY 2012



NIH Awards, 2009–2013

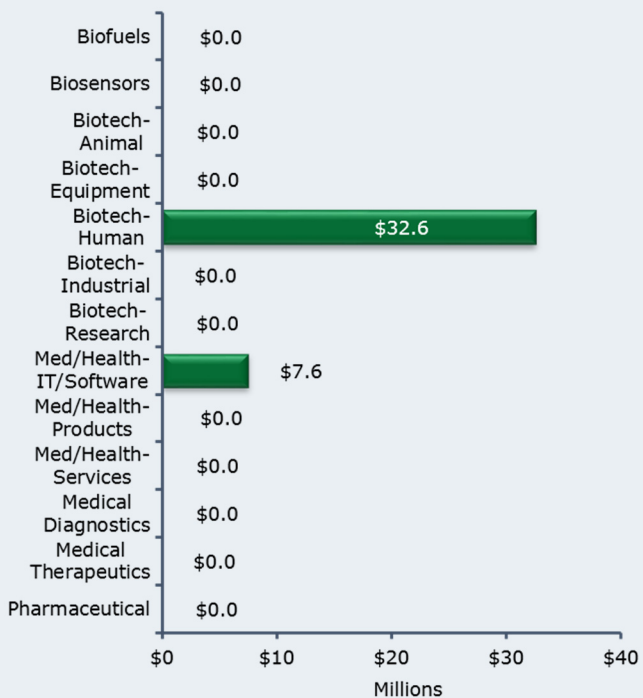


Bioscience Venture Capital in North Dakota

Bioscience-Related Venture Capital Investments, 2009–2013

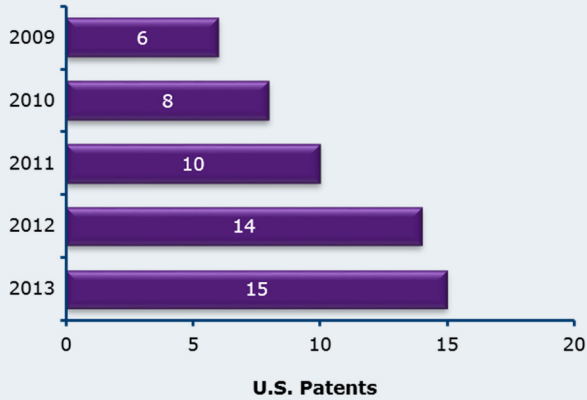


Bioscience-Related Venture Capital Investments by Segment, 2009–2013

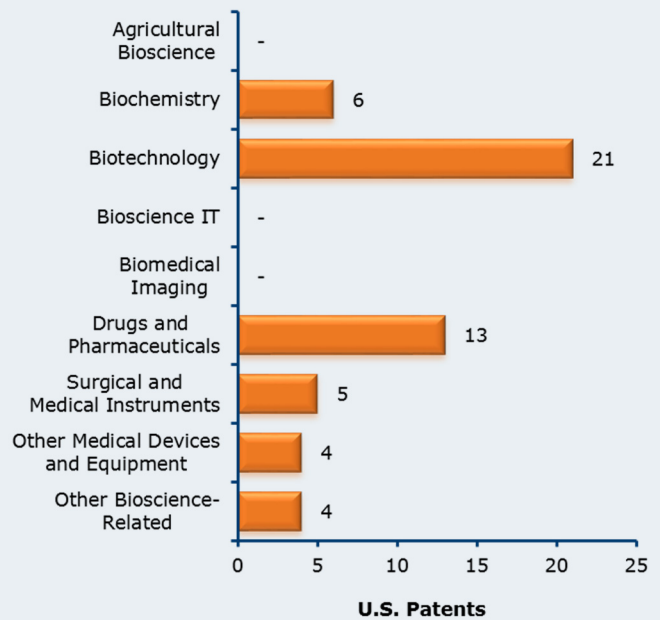


Bioscience Patents in North Dakota

Bioscience-Related Patents, 2009–2013



Bioscience-Related Patents by Segment, 2009–2013



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), and NIH-managed funding for FY 2009 and FY 2010 from the American Recovery and Reinvestment Act (ARRA) website.

Venture Capital: Thomson Reuters Thomson ONE venture capital database.

Patents: U.S. Patent & Trademark Office data from Thomson Reuters Delphion Patent Analysis Database.

For a more detailed discussion of the data and methodology used, please see the Appendix to the full national report.