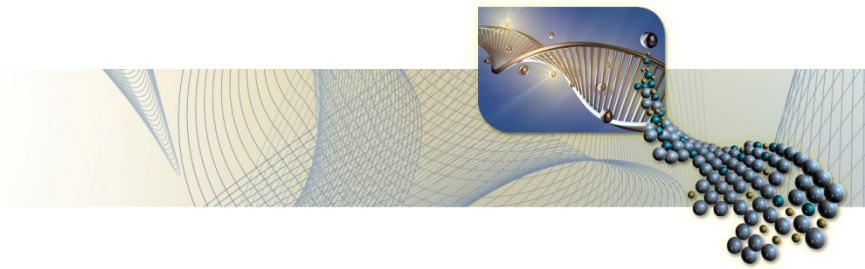


NORTH DAKOTA



North Dakota has an employment specialization in the agricultural feedstock and chemicals subsector of the bioscience industry (location quotient of 2.04). Of the \$78 million in total academic bioscience research and development expenditures in 2008, \$51.8 million were in agricultural sciences, followed by \$17.9 million in medical sciences. Of the 58 bioscience patents issued in the last six years, the largest share are in biotechnology, followed by biochemistry and agricultural biosciences.

●●● Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metrics	North Dakota	United States	Rank*
Bioscience Industry, 2008			
Total Bioscience Industry Employment, 2008	1,319	1,420,324	V
Bioscience Industry Location Quotient, 2008	0.37	n/a	V
Biosciences Industry Establishments, 2008	81	47,593	V
Academic R&D Expenditures, FY 2008			
Bioscience R&D (\$ thousands)	\$77,810	\$31,818,810	44
Bioscience Share of Total R&D	43.0%	61.3%	47
Bioscience R&D Per Capita	\$121.31	\$104.54	13
Change in Bioscience R&D, FY 2004–08	7.0%	22.3%	45
NIH Funding, FY 2009			
Total, Including ARRA Funds (\$ thousands)	\$15,025	\$25,837,590	50
Per Capita Funding	\$23.23	\$84.16	46
Change in Baseline Funding, FY 2004–09**	-20.8%	-4.7%	47
Change in Total Funding, FY 2004–09	-7.7%	14.6%	47
Clinical Trials, Initiated 2009			
	76	5,299	42
Higher Education Degrees in Bioscience Fields, AY 2008			
	594	161,811	45
Employment in Bioscience-related Occupations, 2008			
	1,720	717,510	48
Bioscience Venture Capital Investments, 2004–09 (\$ millions)			
	\$10.6	\$60,099	47
Bioscience and Related Patents, 2004–09			
	58	75,593	49

*State ranking figures for bioscience industry employment metrics are calculated as quintiles (I=Top Quintile; V=Bottom Quintile). All other metrics are ranked 1-52.

**Baseline Funding does not include American Recovery and Reinvestment Act (ARRA) funds for 2009.

For source notes, see end of State Profile.

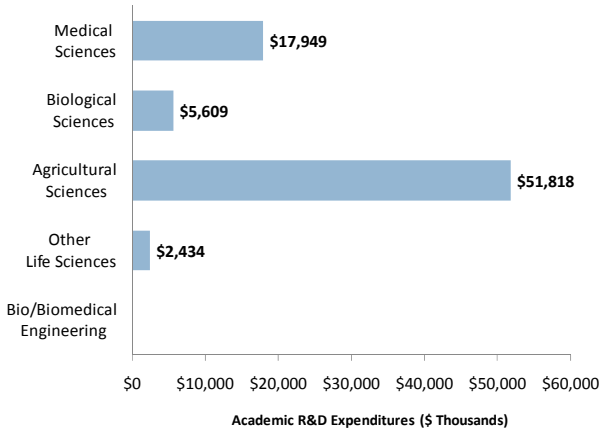
●●● Bioscience Industry Base, 2008

INDUSTRY SUBSECTOR	North Dakota		United States	
	2008	2001-08 Change	2008	2001-08 Change
AGRICULTURAL FEEDSTOCK & CHEMICALS				
Establishments	15	16.2%	2,440	16.0%
Employment	588	17.1%	114,793	1.9%
Location Quotient	2.04		n/a	
Direct-Effect Employment Multiplier	6.93		11.33	
Total Employment Impact	4,075		1,284,650	
Average Annual Wage	\$51,724		\$72,279	
DRUGS & PHARMACEUTICALS				
Establishments			2,771	6.4%
Employment			311,882	2.3%
Location Quotient			n/a	
Direct-Effect Employment Multiplier			9.92	
Total Employment Impact			2,873,278	
Average Annual Wage			\$93,378	
MEDICAL DEVICES & EQUIPMENT				
Establishments	18	40.8%	15,227	0.4%
Employment	220	13.0%	435,509	2.0%
Location Quotient	0.20		n/a	
Direct-Effect Employment Multiplier	1.80		4.87	
Total Employment Impact	397		2,029,581	
Average Annual Wage	\$42,066		\$63,606	
RESEARCH, TESTING, & MEDICAL LABORATORIES				
Establishments	48	56.4%	27,154	57.7%
Employment	511	163.0%	558,140	46.1%
Location Quotient	0.36		n/a	
Direct-Effect Employment Multiplier	1.90		3.30	
Total Employment Impact	973		1,853,127	
Average Annual Wage	\$40,296		\$80,785	
TOTAL BIOSCIENCES INDUSTRY				
Establishments	81	43.6%	47,593	28.3%
Employment	1,319	48.0%	1,420,324	15.8%
Location Quotient	0.37		n/a	
Direct-Effect Employment Multiplier	4.13		5.82	
Total Employment Impact	5,446		8,040,636	
Average Annual Wage	\$45,686		\$77,595	
TOTAL PRIVATE SECTOR				
Establishments	23,393	9.3%	8,860,956	13.8%
Employment	286,096	14.1%	113,917,377	3.5%
Average Annual Wage	\$34,892		\$45,229	

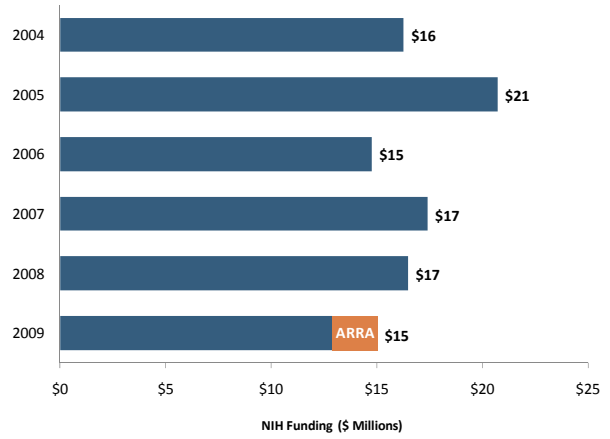
Note: U.S. employment metrics include Puerto Rico. Estimates of total employment impacts do not include Puerto Rico.

Bioscience Performance Metrics

Bioscience Academic R&D Expenditures in North Dakota, FY 2008

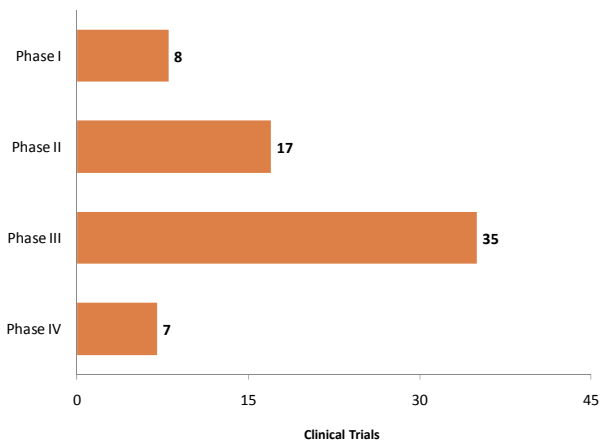


NIH Awards in North Dakota, 2004–2009

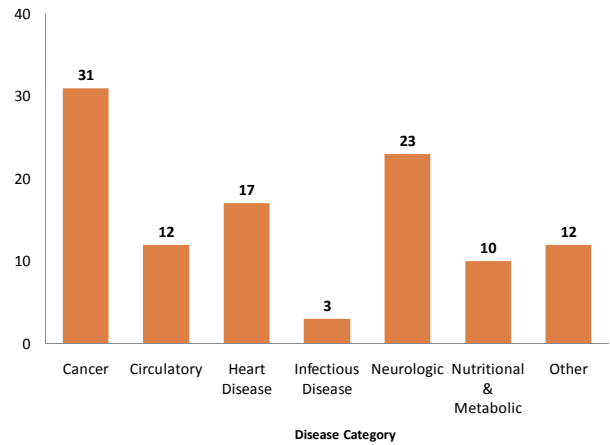


Recent Clinical Trial Activities

Clinical Trials by Phase in North Dakota, 2009

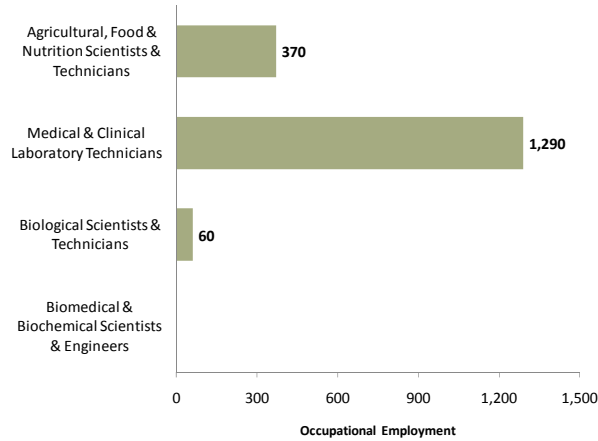


Clinical Trials by Major Disease Category in North Dakota, 2009

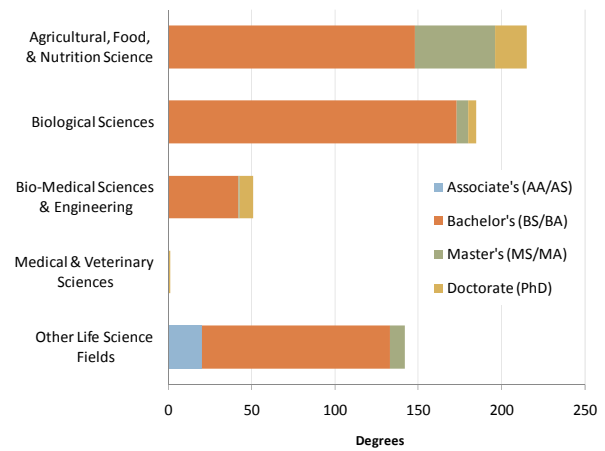


Bioscience Talent Base

Bioscience-related Occupational Employment in North Dakota, 2008

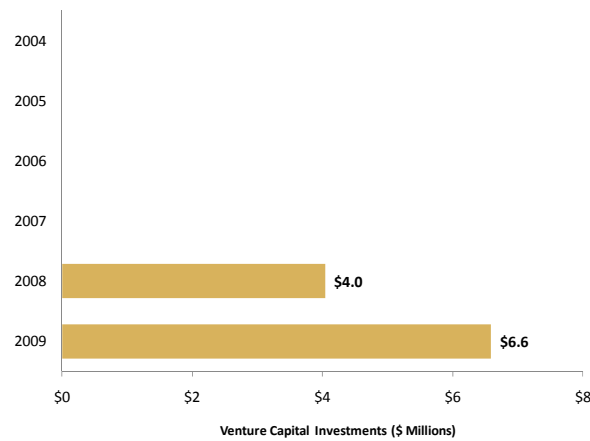


Bioscience-related Degrees in North Dakota, AY 2008

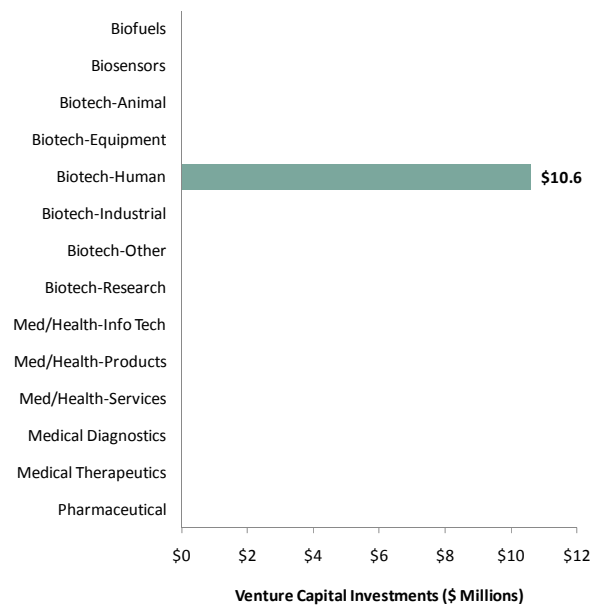


Bioscience Venture Capital

Bioscience-related Venture Capital Investments in North Dakota, 2004–2009

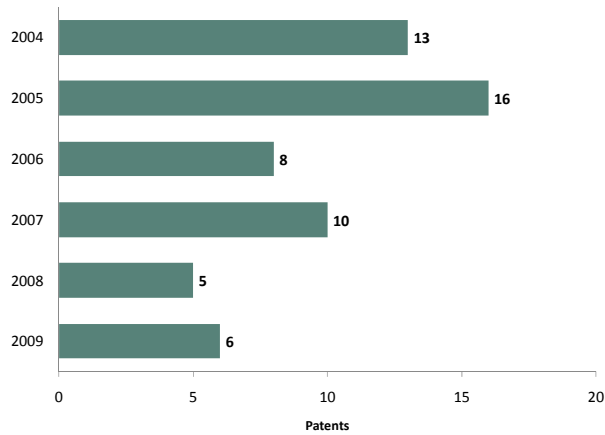


Bioscience-related Venture Capital Investments in North Dakota by Segment, 2004–2009

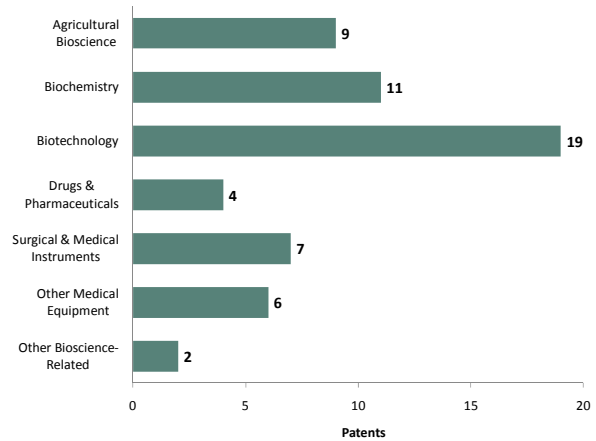


●●● Bioscience Patents

Bioscience-related Patents in North Dakota, 2004–2009



Bioscience-related Patents by Classification Group in North Dakota, 2004–2009



State Bioscience Contact

No designated contact

Source Notes:

Employment, Establishment, and Wage Data: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) industry data provided by the Minnesota IMPLAN Group, 2001 and 2008.

Employment Multipliers: U.S. Bureau of Economic Analysis RIMS II Employment Multipliers, 2006 (most currently available).

Academic R&D Expenditures: National Science Foundation (NSF) Survey of Research and Development Expenditures at Universities and Colleges, 2004 and 2008.

NIH Funding: National Institutes of Health, Office of Extramural Research, Award Trends, Dollars Awarded by State, 2004 and 2009.

Clinical Trials: National Institutes of Health, Clinicaltrials.gov, trials that were initiated in 2009.

Higher Education Degrees: National Center for Educational Statistics, Integrated Postsecondary Education Data System (IPEDS), 2008.

Occupational Employment: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES) survey data, 2008.

Venture Capital: Thomson Reuters' VentureXpert Database, 2004–2009, as of January 15, 2010.

Patents: U.S. Patent & Trademark Office data as available from the Thomson Reuters' Delphion Patent Analysis Database, 2004–2009, as of January 15, 2010.

For a more detailed discussion of the data and methodology used, please see the Appendix to the full national report. ©2010