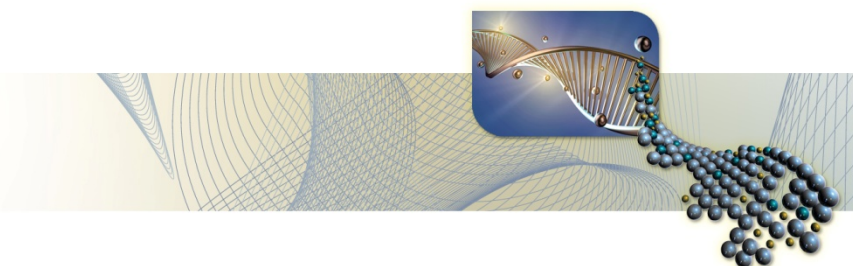


MINNESOTA



Minnesota is a national leader in the medical devices and equipment subsector. The subsector is large, highly specialized (location quotient of 3.40), and has grown at a rapid rate overall since 2001. The State's total bioscience industry is considered to have a specialized employment concentration and has outpaced national growth in the industry since 2001, driven largely by its strengths in medical devices. Total academic bioscience research and development expenditures in 2008 were \$509 million, and these R&D expenditures have grown faster than the national average since 2004. Funding to Minnesota institutions from the National Institutes of Health totaled \$511 million in 2009 (including funds from the American Recovery and Reinvestment Act). In both bioscience venture capital and bioscience patents the state registered above its population rank. Of the \$1.65 billion in venture capital invested in the biosciences over the last six years, the largest share has been in medical therapeutics. The 4,608 bioscience patents issued were heavily concentrated in surgical and medical instruments.

●●● Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metrics	Minnesota	United States	Rank*
Bioscience Industry, 2008			
Total Bioscience Industry Employment, 2008	40,165	1,420,324	II
Bioscience Industry Location Quotient, 2008	1.40	n/a	I
Biosciences Industry Establishments, 2008	919	47,593	II
Academic R&D Expenditures, FY 2008			
Bioscience R&D (\$ thousands)	\$508,552	\$31,818,810	21
Bioscience Share of Total R&D	72.8%	61.3%	7
Bioscience R&D Per Capita	\$97.23	\$104.54	25
Change in Bioscience R&D, FY 2004–08	34.8%	22.3%	7
NIH Funding, FY 2009			
Total, Including ARRA Funds (\$ thousands)	\$510,675	\$25,837,590	15
Per Capita Funding	\$96.97	\$84.16	12
Change in Baseline Funding, FY 2004–09**	-0.5%	-4.7%	24
Change in Total Funding, FY 2004–09	14.3%	14.6%	33
Clinical Trials, Initiated 2009	436	5,299	17
Higher Education Degrees in Bioscience Fields, AY 2008	3,575	161,811	14
Employment in Bioscience-related Occupations, 2008	17,590	717,510	14
Bioscience Venture Capital Investments, 2004–09 (\$ millions)	\$1,648.1	\$60,099	10
Bioscience and Related Patents, 2004–09	4,608	75,593	6

*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.

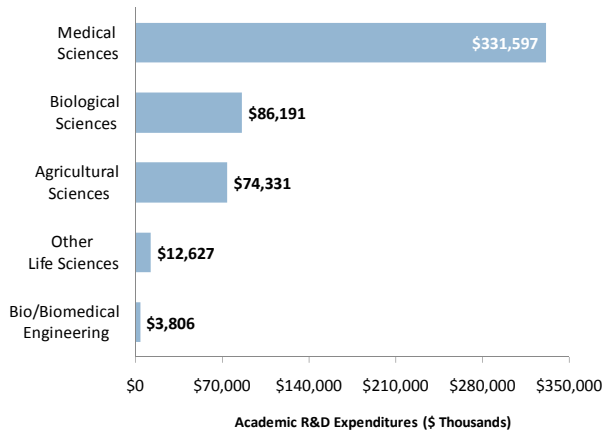
●●● Bioscience Industry Base, 2008

INDUSTRY SUBSECTOR	Minnesota		United States	
	2008	2001-08 Change	2008	2001-08 Change
AGRICULTURAL FEEDSTOCK & CHEMICALS				
Establishments	68	30.8%	2,440	16.0%
Employment	1,975	17.5%	114,793	1.9%
Location Quotient	0.85		n/a	
Direct-Effect Employment Multiplier	7.45		11.33	
Total Employment Impact	14,712		1,284,650	
Average Annual Wage	\$58,571		\$72,279	
DRUGS & PHARMACEUTICALS				
Establishments	55	7.8%	2,771	6.4%
Employment	3,497	55.4%	311,882	2.3%
Location Quotient	0.55		n/a	
Direct-Effect Employment Multiplier	5.14		9.92	
Total Employment Impact	17,982		2,873,278	
Average Annual Wage	\$65,287		\$93,378	
MEDICAL DEVICES & EQUIPMENT				
Establishments	489	30.1%	15,227	0.4%
Employment	29,963	27.9%	435,509	2.0%
Location Quotient	3.40		n/a	
Direct-Effect Employment Multiplier	3.71		4.87	
Total Employment Impact	111,250		2,029,581	
Average Annual Wage	\$76,244		\$63,606	
RESEARCH, TESTING, & MEDICAL LABORATORIES				
Establishments	307	62.3%	27,154	57.7%
Employment	4,731	43.6%	558,140	46.1%
Location Quotient	0.42		n/a	
Direct-Effect Employment Multiplier	2.46		3.30	
Total Employment Impact	11,617		1,853,127	
Average Annual Wage	\$67,844		\$80,785	
TOTAL BIOSCIENCES INDUSTRY				
Establishments	919	37.6%	47,593	28.3%
Employment	40,165	31.0%	1,420,324	15.8%
Location Quotient	1.40		n/a	
Direct-Effect Employment Multiplier	3.87		5.82	
Total Employment Impact	155,561		8,040,636	
Average Annual Wage	\$73,432		\$77,595	
TOTAL PRIVATE SECTOR				
Establishments	161,281	8.9%	8,860,956	13.8%
Employment	2,303,642	2.8%	113,917,377	3.5%
Average Annual Wage	\$46,038		\$45,229	

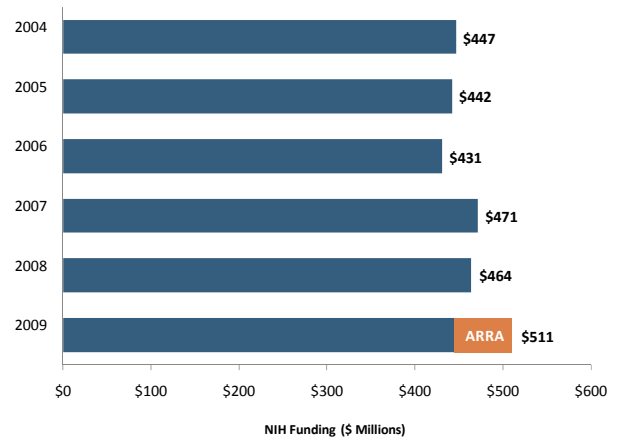
Note: U.S. employment metrics include Puerto Rico. Estimates of total employment impacts do not include Puerto Rico.

Bioscience Performance Metrics

Bioscience Academic R&D Expenditures in Minnesota, FY 2008

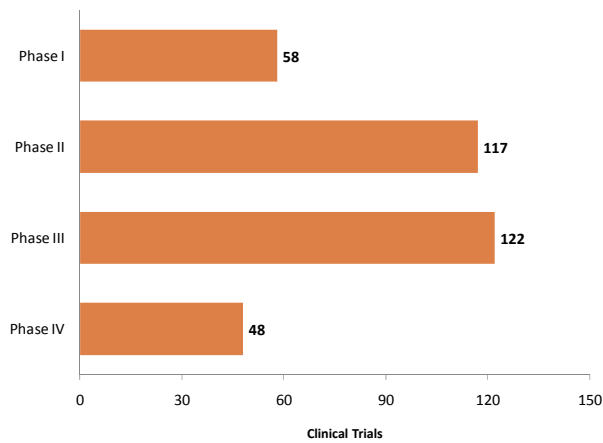


NIH Awards in Minnesota, 2004–2009

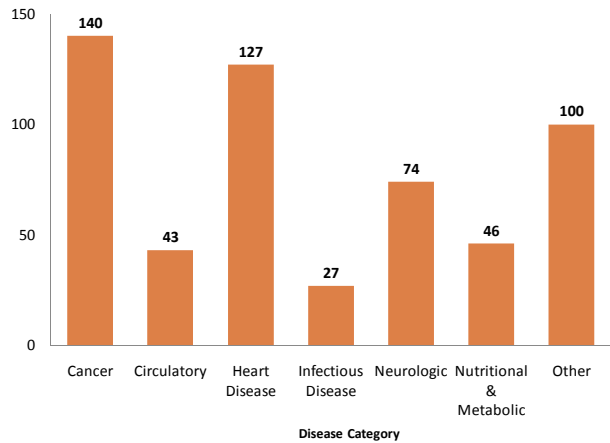


Recent Clinical Trial Activities

Clinical Trials by Phase in Minnesota, 2009

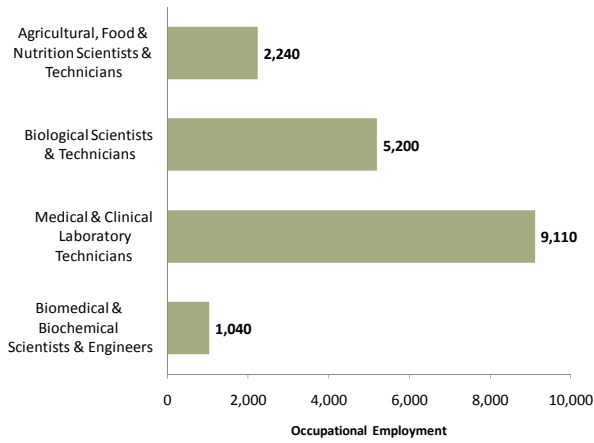


Clinical Trials by Major Disease Category in Minnesota, 2009

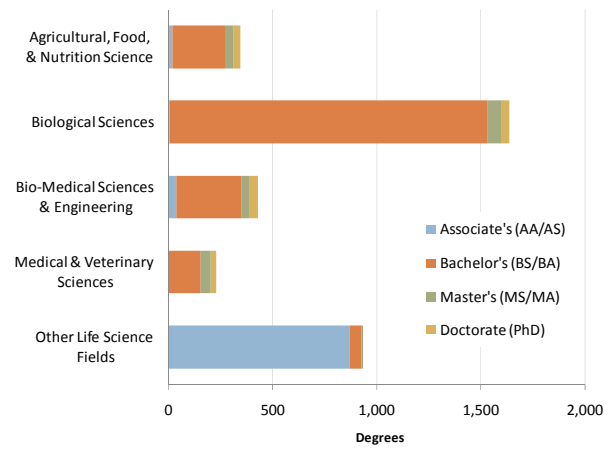


Bioscience Talent Base

Bioscience-related Occupational Employment in Minnesota, 2008

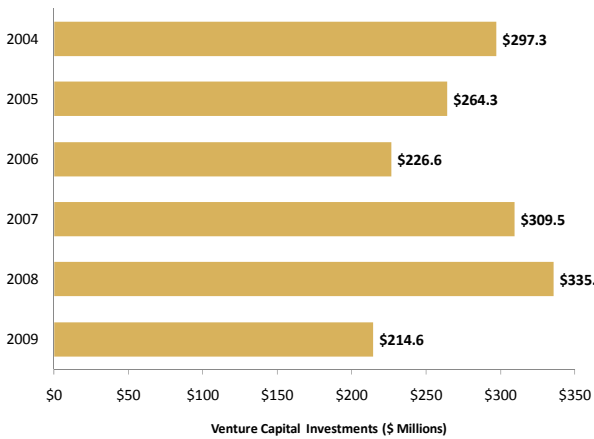


Bioscience-related Degrees in Minnesota, AY 2008

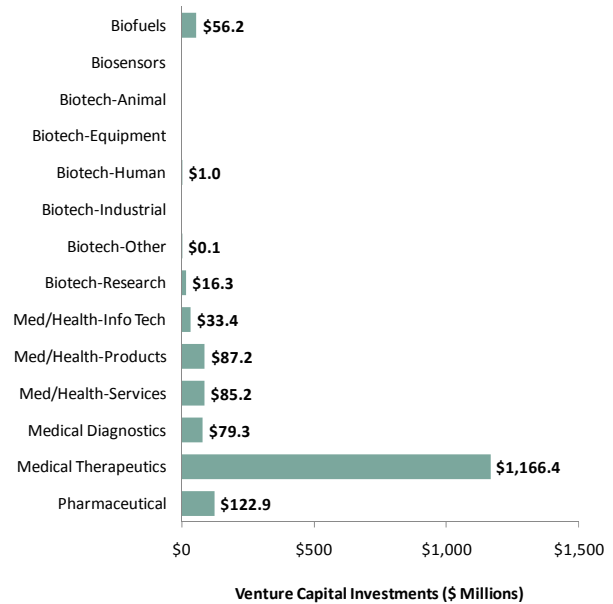


Bioscience Venture Capital

Bioscience-related Venture Capital Investments in Minnesota, 2004–2009

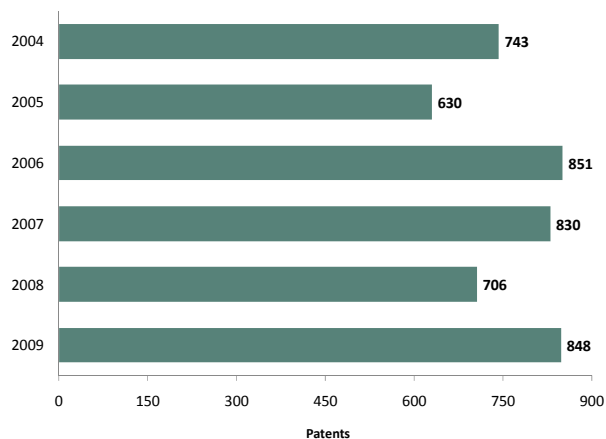


Bioscience-related Venture Capital Investments in Minnesota by Segment, 2004–2009

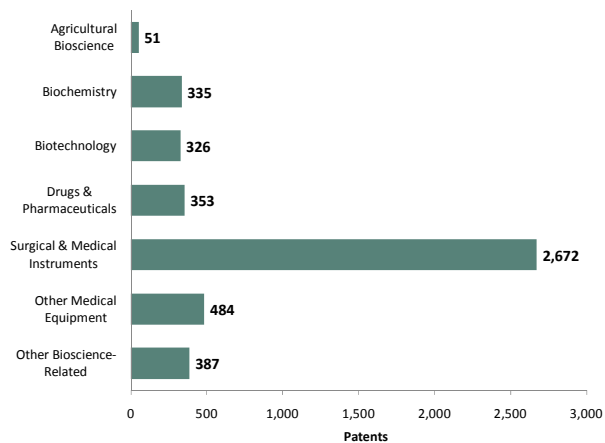


●●● Bioscience Patents

Bioscience-related Patents in Minnesota, 2004–2009



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



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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