

## NEBRASKA

Nebraska has employment specializations in agricultural feedstock and chemicals (location quotient of 2.95) and medical devices and equipment (1.53). In agricultural feedstock and chemicals, Nebraska was one of the few states to experience a large employment increase since 2001 (up 32 percent). Academic bioscience research expenditures were nearly \$250 million in 2006, led by biological sciences (\$113 million). Most of the \$51 million in bioscience venture capital invested in the past 6 years was in medical/health services. The 447 bioscience patents issued over the same period were mainly in biochemistry, drugs and pharmaceuticals, and biotechnology.

### Major Industry Developments and Recent Successes

- **Pfizer** announced in June 2007 plans to invest \$26 million at its Lincoln plant in a production line for Improvac, a vaccine used to control “boar taint” in male pigs.

### Recent State Initiatives

The University of Nebraska continued fund raising toward a new home for its **Center for Virology**, which will be based at Lincoln and partner with the medical center in Omaha.

Creighton University, also a partner in the virology center, won a Partnerships for Innovation award from the National Science Foundation to create a certificate program in **Biomedical Technology Commercialization** for students in the College of Business Administration, School of Law, and School of Medicine. The certificate requires completion of two courses and internship with a local law firm, technology transfer office, or small science-related company.

Bio Nebraska and FutureForce Nebraska used a challenge grant from BIO matched by the State Legislature to create **Nebraska Bioscience Week**, part of a year-long campaign to stimulate interest in science careers among middle-school students.

For additional information on Nebraska’s bioscience policies and programs, please see <http://www.neded.org/> and <http://www.bionebraska.org>.

## Bioscience Industry Base, 2006

Industry Subsector	Nebraska		United States	
	2006	2001-06 Change	2006	2001-06 Change
<b>Agricultural Feedstock &amp; Chemicals</b>				
Establishments	51	28.1%	2,183	3.8%
Employment	2,062	32.0%	105,846	-6.1%
Location Quotient	2.95		n.a.	
Direct-Effect Employment Multiplier	6.09		11.22	
Total Employment Impact	12,561		1,214,709	
Average Annual Wage	\$55,200		\$67,870	
<b>Drugs &amp; Pharmaceuticals</b>				
Establishments	24	-4.0%	2,654	1.9%
Employment	1,911	12.0%	317,149	4.0%
Location Quotient	0.91		n.a.	
Direct-Effect Employment Multiplier	4.68		9.92	
Total Employment Impact	8,937		2,880,242	
Average Annual Wage	\$57,453		\$86,892	
<b>Medical Devices &amp; Equipment</b>				
Establishments	82	9.2%	15,215	0.3%
Employment	4,260	-0.1%	422,993	-0.9%
Location Quotient	1.53		n.a.	
Direct-Effect Employment Multiplier	2.58		4.85	
Total Employment Impact	10,991		1,980,128	
Average Annual Wage	\$42,842		\$59,441	
<b>Research, Testing, &amp; Medical Laboratories</b>				
Establishments	115	78.3%	22,857	32.7%
Employment	2,186	9.9%	449,991	17.8%
Location Quotient	0.74		n.a.	
Direct-Effect Employment Multiplier	2.13		3.25	
Total Employment Impact	4,646		1,440,500	
Average Annual Wage	\$58,683		\$71,284	
<b>Total Private Sector</b>				
Establishments	54,107	9.4%	8,575,730	10.2%
Employment	748,273	1.7%	113,463,842	3.1%
Average Annual Wage	\$33,410		\$42,272	

Note: n.a. = metric is not applicable.

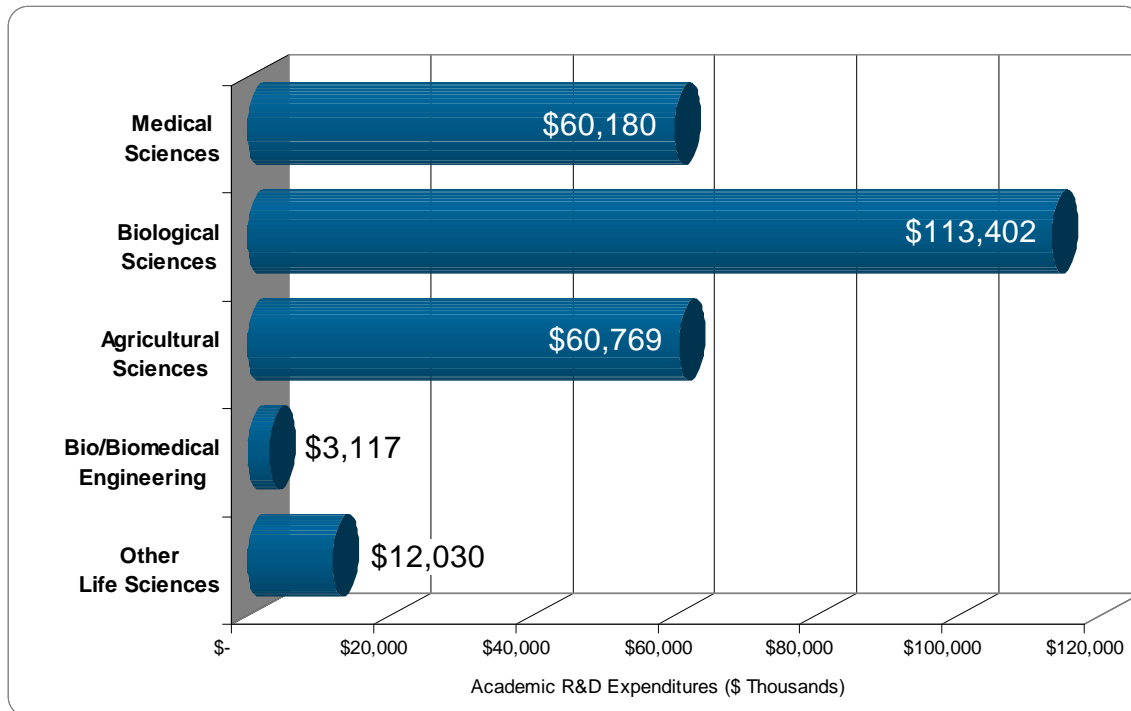
## Additional Bioscience Performance Metrics

### Summary of State Performance in Selected Bioscience-related Metrics

	Nebraska	United States	Rank
Academic R&D Expenditures, FY 2006			
Total (\$ thousands)	\$358,858	\$47,760,402	33
Bioscience R&D (\$ thousands)	\$249,498	\$29,307,628	30
Bioscience Share of Total R&D	69.5%	61.4%	
Bioscience R&D Per Capita	\$141.46	\$98.10	
Change in Bioscience R&D FY 2002–2006	42.6%	36.9%	
NIH Funding, FY 2007			
Total (\$ thousands)	\$73,692	\$21,066,389	37
Per Capita Funding	\$41.53	\$69.84	
Change in Funding, FY 2002–2007	19.6%	11.2%	
Higher Education Degrees in Bioscience Fields, AY 2006	1,280	143,433	35
Employment in Bioscience-related Occupations, 2006	4,430	588,520	34
Bioscience Venture Capital Investments, 2002-2007 (\$ millions)	\$50.9	\$51,260.9	36
Bioscience and Related Patents, 2002-2007	447	121,817	36

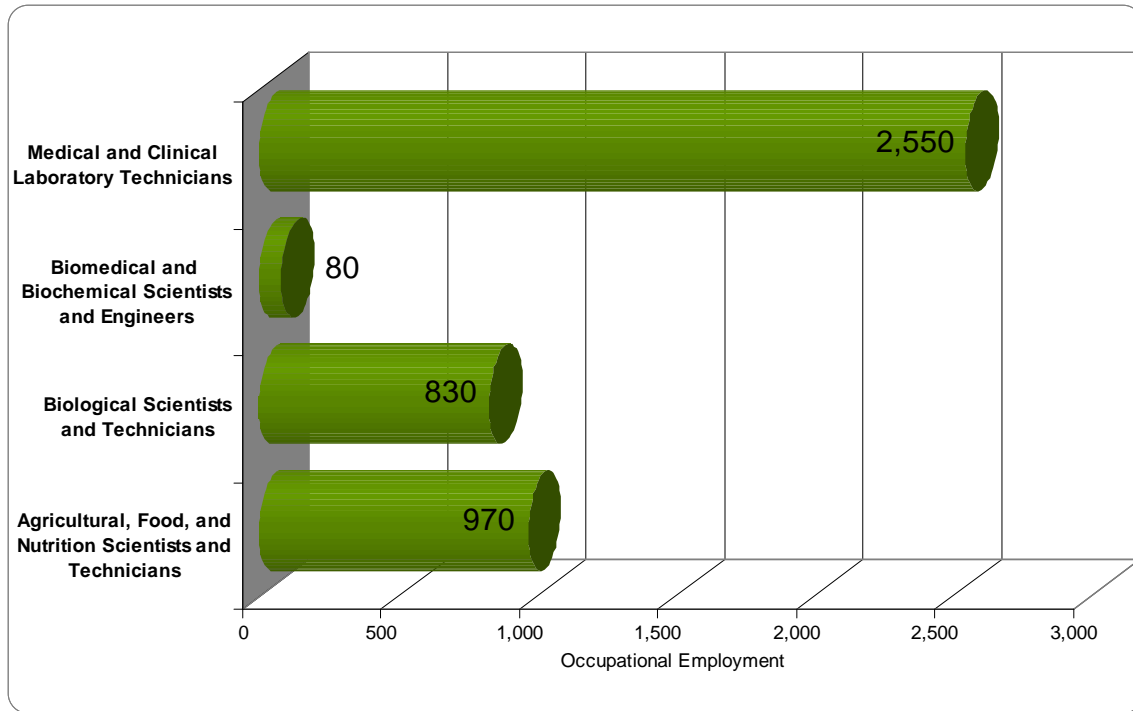
## Bioscience R&D Base

### Bioscience Academic R&D Expenditures in Nebraska, FY 2006

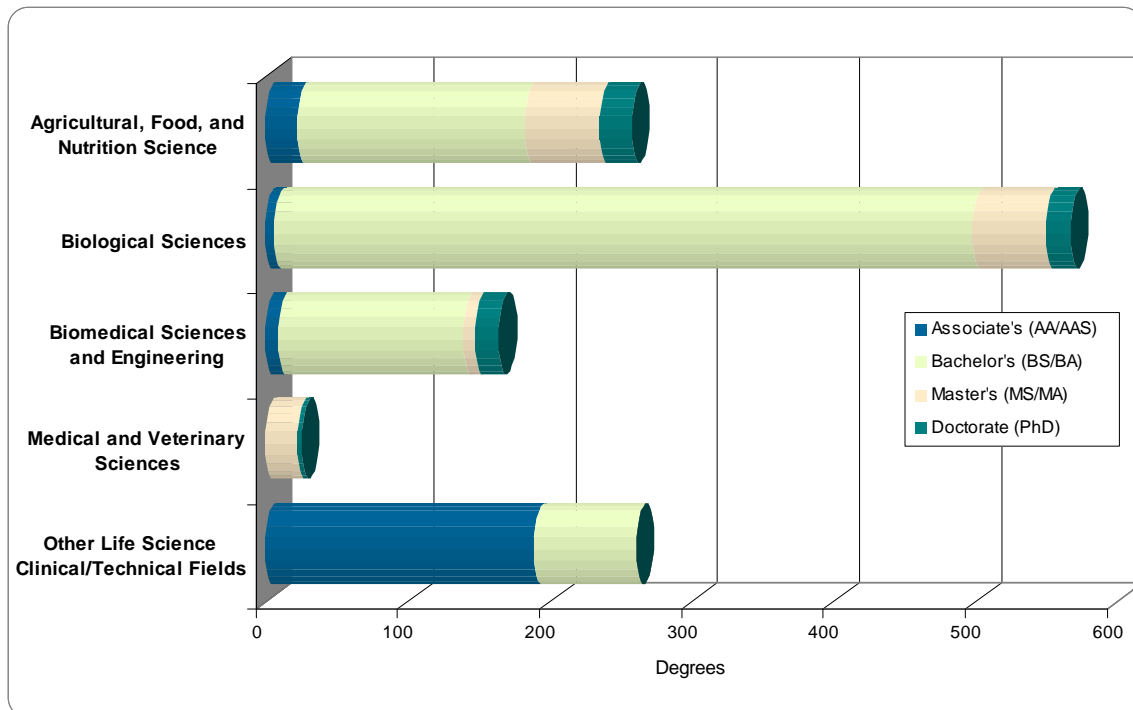


## Bioscience Talent Base

### Bioscience-related Occupational Employment in Nebraska, 2006

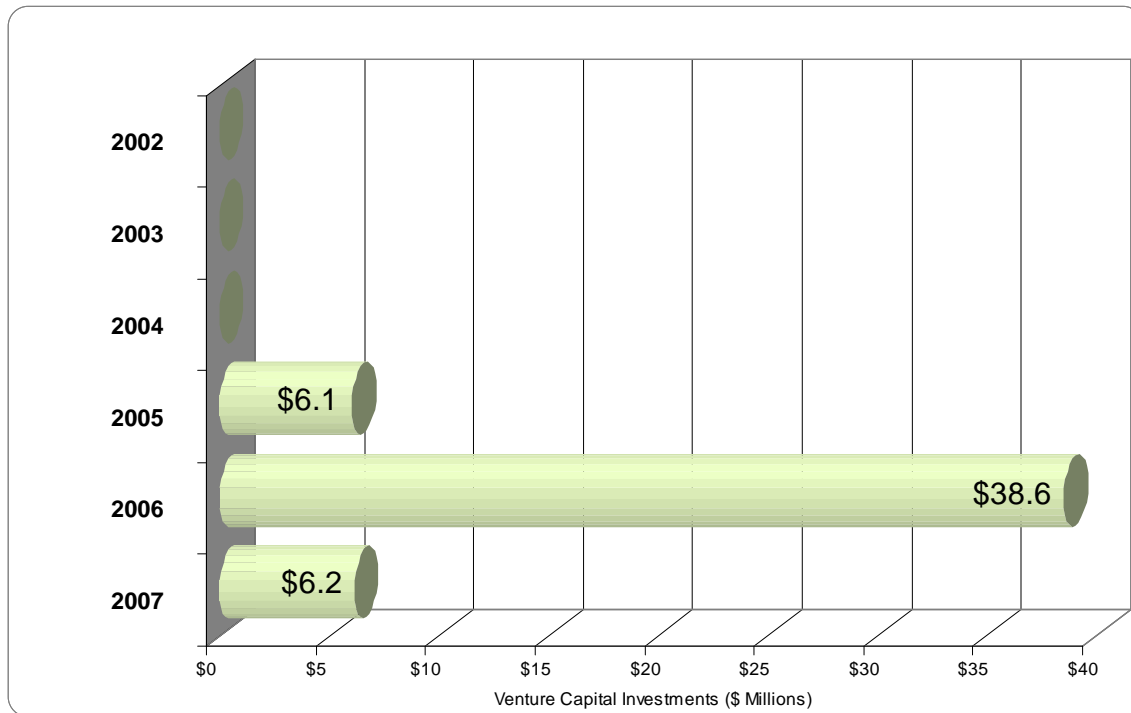


### Bioscience-related Degrees in Nebraska, AY 2006

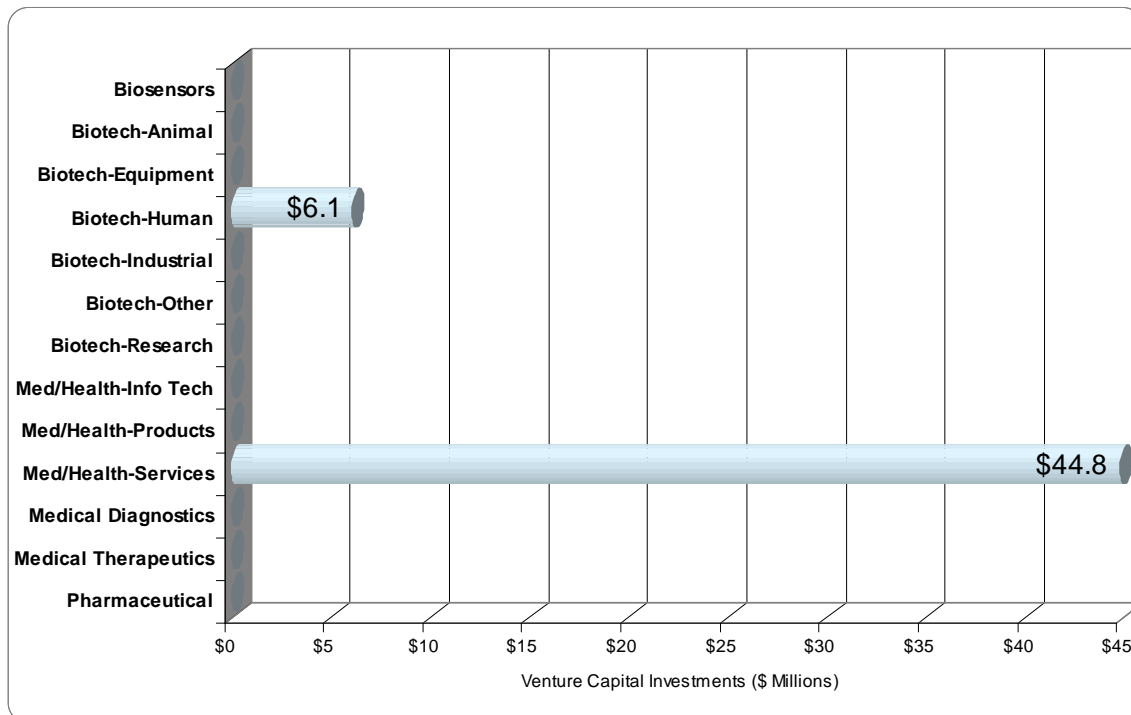


## Bioscience Venture Capital

### Bioscience-related Venture Capital Investments in Nebraska, 2002–2007

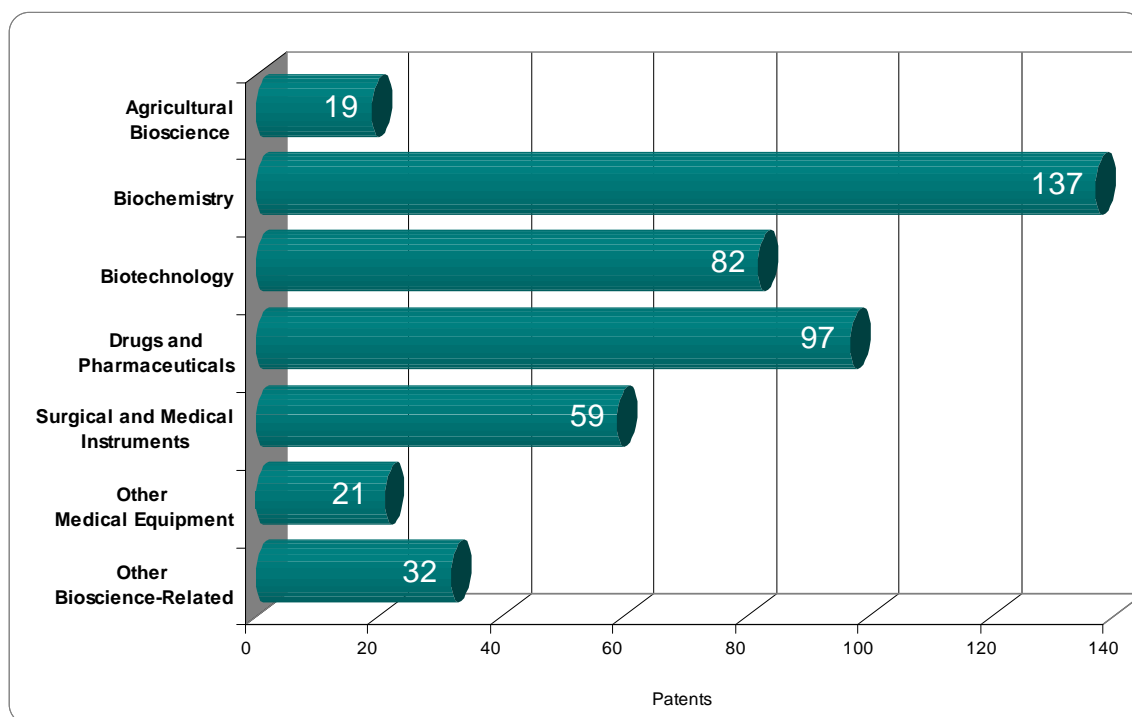


### Bioscience-related Venture Capital Investments in Nebraska by Segment, 2002–2007



## Bioscience Patents

### Bioscience-related Patents by Classification Group in Nebraska, 2002–2007



## State Bioscience Contacts

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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 2006.

**Employment Multipliers:** U.S. Bureau of Economic Analysis RIMS II Employment Multipliers, 2005 (most currently available).

**Academic R&D Expenditures:** National Science Foundation (NSF) Survey of Research and Development Expenditures at Universities and Colleges, 2002 and 2006.

**NIH Funding:** National Institutes of Health – Office of Extramural Research, Award Trends – Dollars Awarded by State, 2002 and 2007.

**Higher Education Degrees:** National Center for Educational Statistics, Integrated Postsecondary Education Data System (IPEDS), 2006.

**Occupational Employment:** U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES) survey data, 2006.

**Venture Capital:** Thomson Reuters VentureXpert Database, 2002-2007, as of May 1, 2008.

**Patents:** U.S. Patent & Trademark Office data as available from the Thomson Reuters' Delphion Patent Analysis Database, 2002–2007, as of May 1, 2008.

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