



Overview and Summary of Recent Initiatives

The public/private partnerships serving the metropolitan area that includes Lincoln and Omaha have actively targeted the biosciences as an area of growth for the region. Since the last BIO report, the **Nebraska Advantage** initiative overhauled state tax incentives administered by the Department of Economic Development, creating a refundable R&D tax credit and other incentives that focus more on start-up and early-stage business entities. In 2005, leaders from the private sector, state and local governments, and the University of Nebraska system formed the **Bio Nebraska Life Sciences Association** to coordinate existing initiatives and advance development of the sector.

Building Bioscience R&D Capacity

Recent state investments in facilities

The University of Nebraska–Lincoln (UNL) is now constructing a **cGMP Facility** as the final phase of the privately funded **Othmer Chemical Engineering Building**, which also includes a **Biological Process Development Facility**. The total cost of the two add-on facilities is \$9.5 million, with \$8 million arranged by the Congressional Delegation.

UNL also has begun fund-raising for a \$15 million facility to house the **Nebraska Center for Virology**, begun through a series of NIH grants that link UNL to the University of Nebraska Medical Center and Creighton University.

The University of Nebraska Medical Center (UNMC), located in Omaha, fully occupied the 289,000-square-foot, \$77 million **Durham Research Center**, which was also funded by a mixture of private donations and federal funds. UNMC is planning a second research center and an additional cGMP facility.

Research programs

Since the last BIO report, UNMC received its largest-ever single grant, a \$17 million award from the NIH for building biomedical research infrastructure.

Biosciences and bioscurity are among eight program areas supported by the **Nebraska Research Initiative**, an academic seed fund initiative funded through the state Board of Regents. Projects are at least \$50,000 and a maximum of 2 years.

Moving Technology into the Marketplace

Commercializing university technology

UNMC's **Technology Advancement Group** funds precommercialization research in support of **UNeMeD**, the licensing subsidiary of UNMC.

Supporting bioscience entrepreneurs and emerging companies

Among the incentives in the Nebraska Advantage Act, which took effect this year, is a refundable 3 percent R&D tax credit.

Invest Nebraska Corporation, a nonprofit in Lincoln funded by \$500,000 in state appropriations and private donations, serves as the statewide coordinator of mentoring and education for angel investors and companies seeking early-stage financing.

The **Midlands Venture Forum** in Omaha sponsors monthly meetings at which entrepreneurs can present business plans to angel investors.

Providing Space for Bioscience Companies

Incubators

The **Technology Development Center** incubator at UNL Tech Park is 22,000 square feet, with BSL-2 wet-lab capacity. The Tech Park is in design phase for a new \$2 million wet-lab wing that would bring the Technology Development Center to 44,000 square feet.

Bioscience research parks

The **UNL Tech Park**, currently six buildings on 130 acres, includes a 30,800-square-foot multitenant building (One Technology Place) that can be wet-lab equipped and currently includes five bioscience firms including a graduate of the Technology Development Center incubator.

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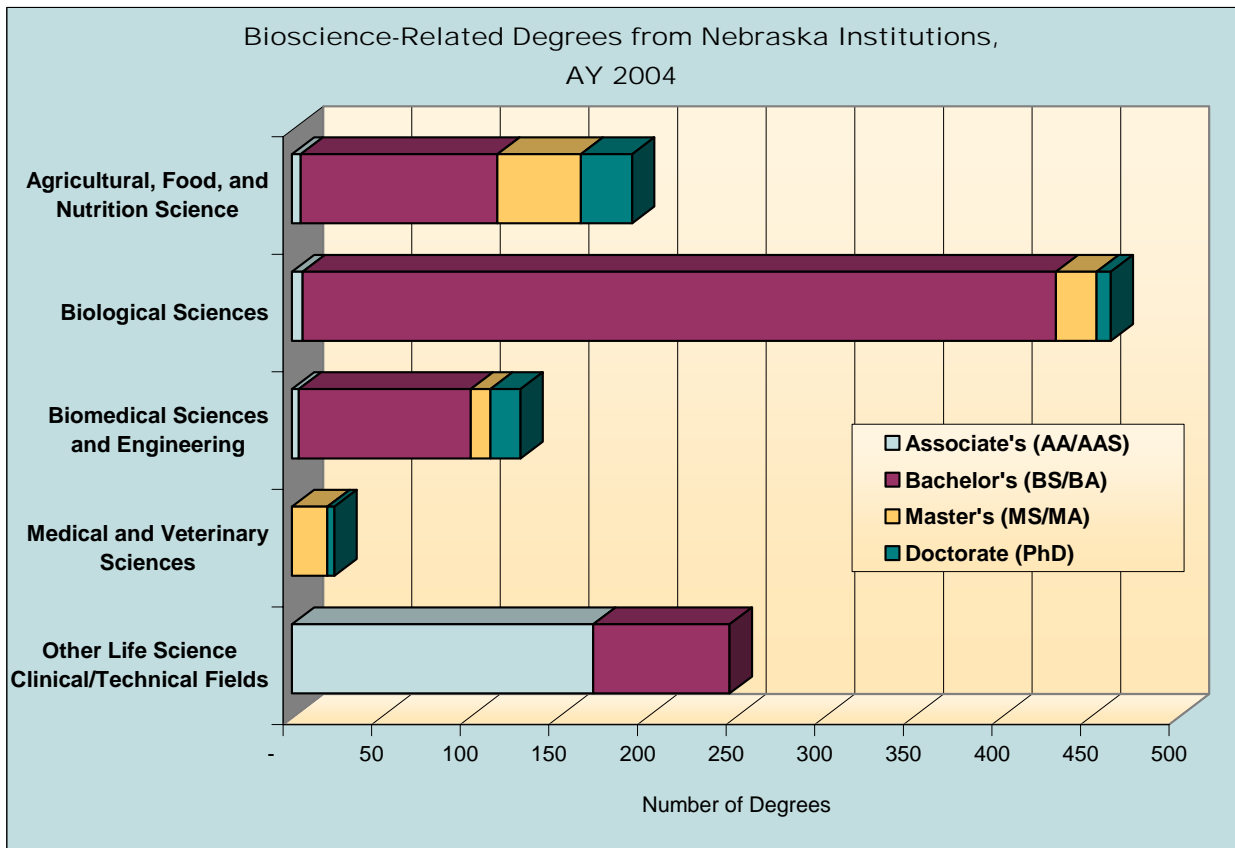
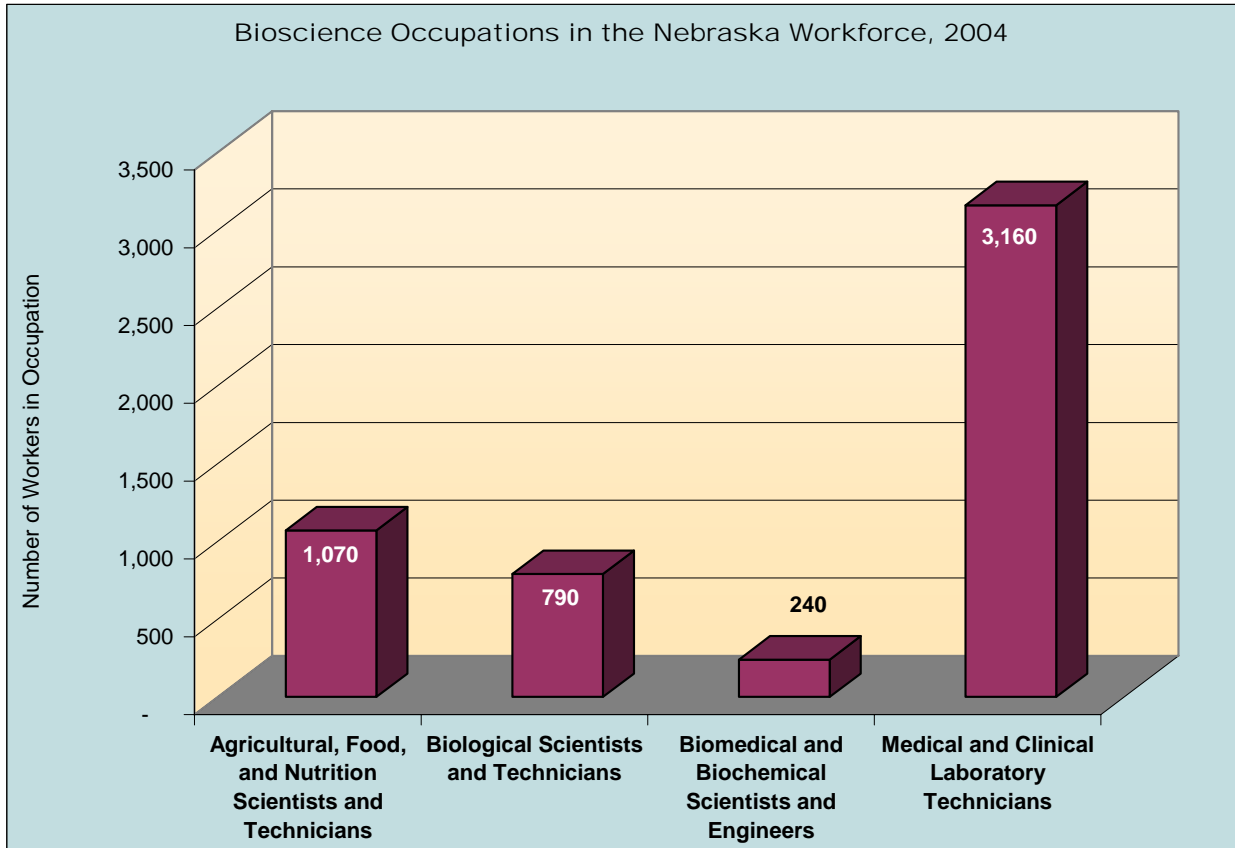
The Bio Nebraska Life Sciences Association was formed in 2005 to coordinate and expand life sciences in the state.

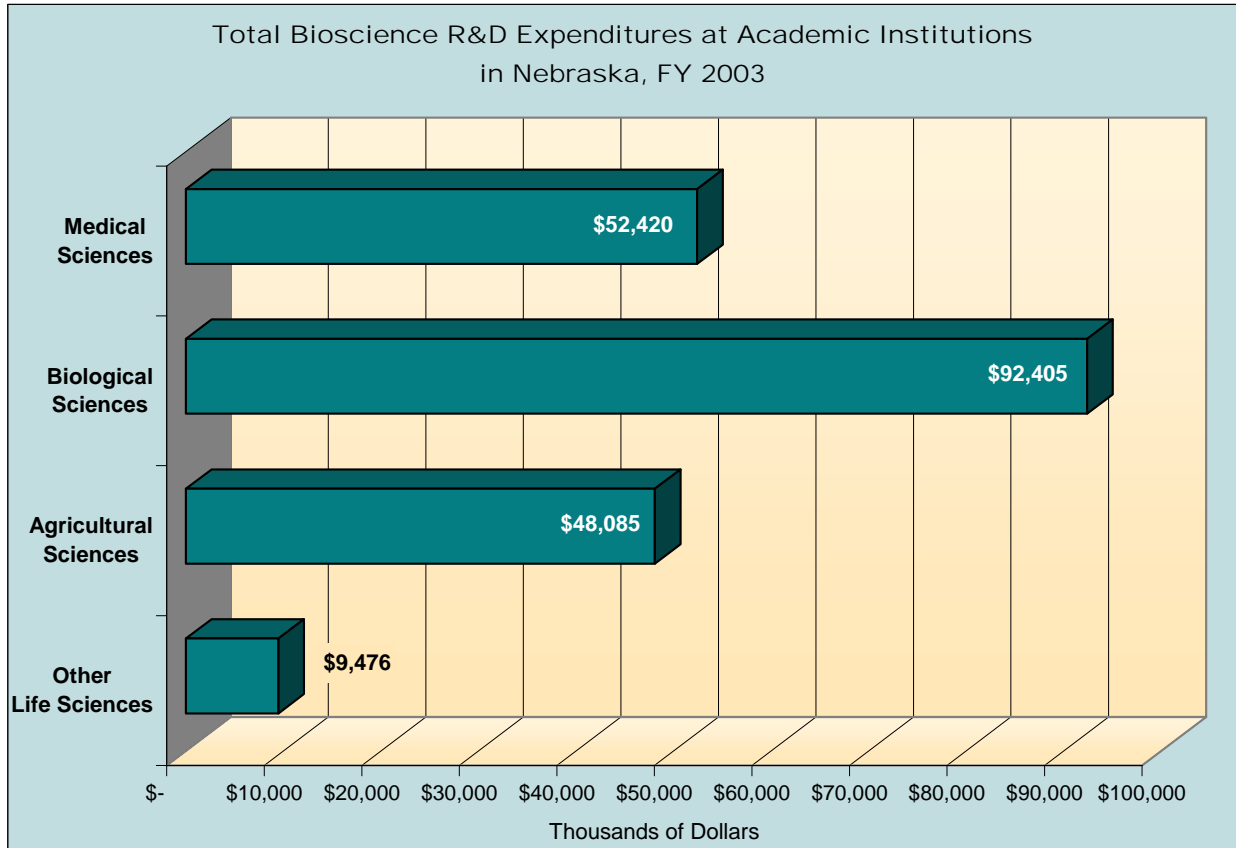
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Industry Subsector	Nebraska	United States
Agricultural Feedstock & Chemicals		
Establishments 2004	45	2,111
2001-2004 Establishment % Change	13.0%	0.4%
Employment 2004	1,741	104,893
2001-2004 Employment % Change	11.5%	-6.9%
Share of U.S. Employment	1.7%	100.0%
Location Quotient	2.48	n.a.
Average Annual Wage 2004	\$47,403	\$63,383
Direct-Effect Employment Multiplier	6.01	10.91
Total Employment Impact	10,461	1,212,094
Drugs & Pharmaceuticals		
Establishments 2004	23	2,589
2001-2004 Establishment % Change	-8.0%	-0.6%
Employment 2004	2,005	313,207
2001-2004 Employment % Change	17.5%	2.7%
Share of U.S. Employment	0.6%	100.0%
Location Quotient	0.96	n.a.
Average Annual Wage 2004	\$51,766	\$79,303
Direct-Effect Employment Multiplier	4.60	9.51
Total Employment Impact	9,223	2,731,321
Medical Devices & Equipment		
Establishments 2004	77	15,190
2001-2004 Establishment % Change	2.9%	0.2%
Employment 2004	3,894	411,460
2001-2004 Employment % Change	-8.7%	-3.6%
Share of U.S. Employment	0.9%	100.0%
Location Quotient	1.42	n.a.
Average Annual Wage 2004	\$39,365	\$56,449
Direct-Effect Employment Multiplier	2.46	4.56
Total Employment Impact	9,565	1,817,705
Research, Testing, & Medical Laboratories		
Establishments 2004	99	20,565
2001-2004 Establishment % Change	54.2%	19.4%
Employment 2004	1,862	413,550
2001-2004 Employment % Change	-6.4%	8.2%
Share of U.S. Employment	0.5%	100.0%
Location Quotient	0.67	n.a.
Average Annual Wage 2004	\$55,402	\$65,414
Direct-Effect Employment Multiplier	2.06	3.15
Total Employment Impact	3,840	1,272,936
TOTAL PRIVATE SECTOR		
Establishments 2004	51,749	8,156,137
2001-2004 Establishment % Change	4.7%	4.8%
Employment 2004	730,421	109,249,195
2001-2004 Employment % Change	-0.7%	-0.7%
Share of U.S. Employment	0.7%	100.0%
Location Quotient	n.a.	n.a.
Average Annual Wage 2004	\$31,053	\$39,003

Source: Battelle calculations -- based on Bureau of Labor Statistics QCEW data from the Minnesota Implan Group, RIMS II Employment Multipliers from the Bureau of Economic Analysis, and the Census Bureau's Economic Census.

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





	Nebraska	United States	Rank
University R&D Expenditures, FY 2003			
Total (\$ thousands)	\$300,540	\$40,104,621	34
Life Science R&D (\$ thousands)	\$204,880	\$24,062,088	30
Percent of Total R&D	68.2%	60.0%	
Life Sciences Per Capita	\$117.80	\$82.74	
Change in Life Sciences FY 1999-2003	45.5%	52.7%	
NIH Support to Institutions, FY 2004			
Total (\$ thousands)	\$74,135	\$22,556,459	37
Per Capita Expenditures	\$42.62	\$77.56	
Change in Expenditures FY 2000-2004	79.3%	53.2%	
Higher Education Degrees in Bioscience Fields, AY 2004	1,054	111,329	36
Bioscience Occupations in the Workforce, 2004	5,260	616,140	33