



NORTHWEST IOWA
Developers Coalition

"Charting A Course For Success"

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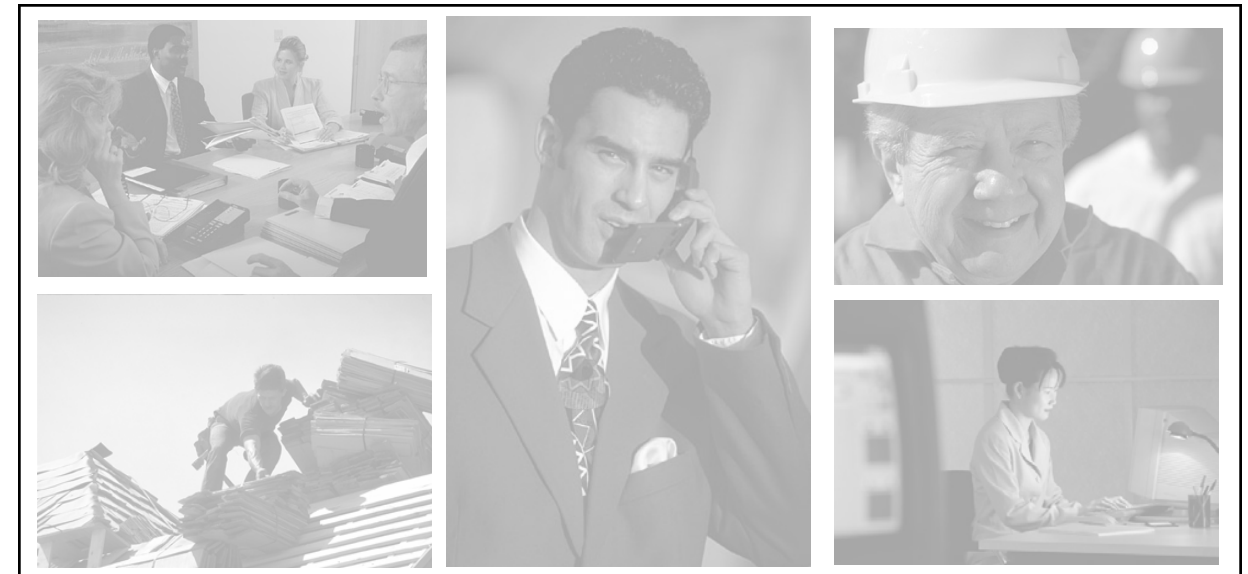
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Regional
Industry Cluster Overview

Biotechnology

2005



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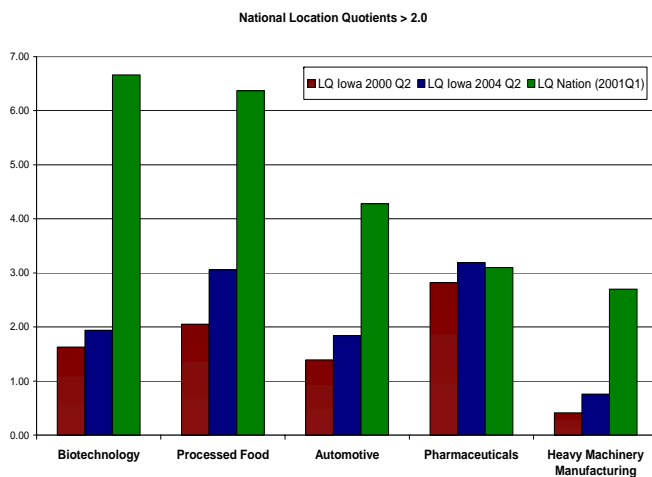
Biotechnology Industry Cluster

WHAT IS AN INDUSTRY CLUSTER?

Industry clusters are a group of concentrated industries that share similar processes, workforce, and resources. Armed with knowledge of where geographic concentrations and gaps exist, policy can support clusters and help foster their growth in a variety of ways. Investments for research and infrastructure can be more precisely targeted; new cooperative relationships can be brokered between firms within "core" industry sectors as well as with region suppliers and customers. Occupations within key industries can be identified, and education and training institutions can use this information to counsel and train students for high-demand, high-wage careers.

Biotechnology Competitiveness

Biotechnology ranks the highest in the Northwest Iowa region in terms of competitiveness as illustrated below by the region to nation location quotient (in green). The region to Iowa location quotients for 2000 and 2004 rank in the top five.



2004 2nd Quarter
Regional Average Annual Wage
\$25,829

Biotechnology Core
Regional Average Wage
\$35,924

Total Regional Employment
45,084

Biotechnology Core
Regional Employment
1,966

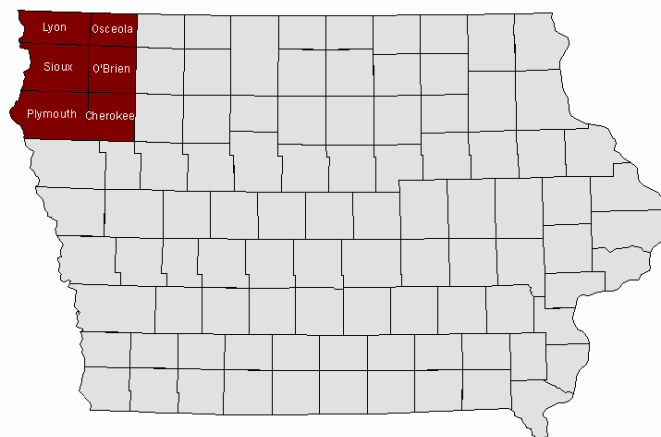
Biotechnology Support Industries
Regional Employment
4,910

WHAT IS BIOTECHNOLOGY?

Biotechnology is the use of living organisms or their products for commercial purposes.

- *Pharmaceuticals and medicine manufacturing*
- *Pesticide and other agricultural chemical manufacturing*
- *Fertilizer manufacturing*
- *Other organic chemical manufacturing*
- *Animal slaughtering and processing*

Northwest Iowa Region



Northwest Iowa High-Growth, High-Wage Occupations in Biotechnology

OCCUPATIONAL TITLE	2000 ESTIMATED EMPLOYMENT	2010 PROJECTED EMPLOYMENT	TOTAL GROWTH 2000-2010	2004 MEDIAN ANNUAL SALARY
Food Batchmakers	1665	1,910	245	\$27,726
Butchers and Meat Cutters	250	325	75	\$30,618
Mixing and Blending Machine Setters, Operators, and Tenders	270	310	40	*
Helpers--Production Workers	515	550	35	*
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	185	215	30	*
First-Line Supervisors/Managers of Production and Operating Workers	455	475	20	\$38,126
Industrial Truck and Tractor Operators	405	425	20	\$26,312
Environmental Science and Protection Technicians, Including Health	90	110	20	*
Veterinarians	40	60	20	*
Veterinary Technologists and Technicians	40	60	20	*
Nonfarm Animal Caretakers	75	95	20	*
General and Operations Managers	275	290	15	\$74,256
Financial Managers	55	65	10	\$53,435
Forest and Conservation Technicians	40	50	10	\$33,800
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	85	95	10	\$33,779
Truck Drivers, Heavy and Tractor-Trailer	360	370	10	\$31,949

Note: The Northwest Region includes Cherokee, Lyon, O'Brien, Osceola, Plymouth, and Sioux Counties. The occupations listed have the highest growth within the industry and that have a higher wage than the regional average of \$25,043. Although the occupations listed above are found in Biotechnology, employment listed is for all industries in Northwest Iowa. The median annual salary is derived from the 2004 Iowa Wage Survey for the 6 county area. Those occupations without an annual salary show high growth but due to the sample from the Occupational Employment Statistics Survey, we are not able to report a wage.

Biotechnology Suppliers

Agricultural products provide the primary inputs for biotechnology. The availability of resources such as cattle, hogs and pigs, sheep, poultry, and grains provide a competitive edge to biotechnology companies located in Northwest Iowa.

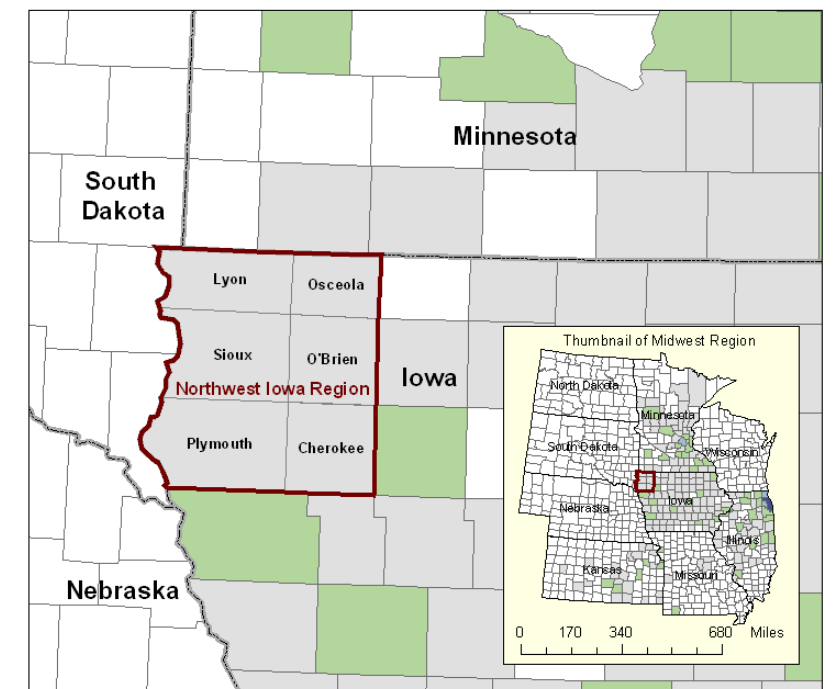
Education

Northwest Iowa Community College, Western Iowa Technical Community College, Dordt College and Northwestern College, located in Northwest Iowa, offer a selection of programs that support the Biotechnology cluster.

Biotechnology Programs

- | | |
|----------------------|---------------|
| Agri-food technology | Agri-business |
| Animal Science | Biology |
| Dairy Science | Chemistry |
| Agriculture | Plant Science |

BIOTECHNOLOGY CORE INDUSTRIES EMPLOYMENT 2003



BIOTECHNOLOGY
Employment 2003

- 0
- 1 - 1,000
- 1,001 - 5,000
- 5,001 - 20,000
- 20,001 or More

