

MANUFACTURING IN IOWA

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OVERVIEW

Iowa's competitive strengths in manufacturing emerged early in the state's history. The United States Census of 1880 documented thousands of Iowa establishments producing a range of goods that included agricultural implements, drugs and chemicals, fertilizers, machine shop products, furniture, distilled liquors, and windmills.

Today, Iowa's manufacturing sector contributes the largest share of state Gross Domestic Product of any major sector in the state. Iowa consistently ranks among the 10 states most dependent on the manufacturing sector.

This brief report highlights key indicators of the size and importance of the manufacturing sector in Iowa.



Manufacturing is defined as the mechanical, physical, or chemical transformation of materials, substances, or components into new products.

IOWA'S MANUFACTURING FIRMS

Number of Firms. Iowa is home to more than 6,120 manufacturing firms operating from 6,610 physical establishments throughout the state.

Small Firms. Nearly half (46%) of Iowa's manufacturing firms are sole proprietorships or partnerships with no paid employees other than the principals. Another 49% percent of Iowa's manufacturing firms are owned by small or medium-sized enterprises (SMEs) with fewer than 500 paid employees.

Large Firms. Large manufacturing enterprises, with 500 or more employees, account for just 5% of Iowa's firms but employ 68% percent of the state's manufacturing workers.

Average Firm Size. In Iowa, 3,310 manufacturing firms are classified as "employer firms," meaning they have employees on payroll. The average size of these employer firms is 69 workers, compared to an average of 48 for the United States.

Distribution of Iowa's Manufacturing Firms by Employment Size

	% Firms
Sole proprietor/partnerships.....	45.9%
Employer firms with	
1 to 4 workers.....	17.8%
5 to 9.....	9.0%
10 to 19.....	7.6%
20 to 99.....	9.9%
100 to 499.....	4.6%
500 or more workers.....	5.1%

Source: U.S. Census Bureau

SIZE OF IOWA'S MANUFACTURING SECTOR

Measured by GDP. Gross domestic product (GDP) measures the value added to goods and services by workers and capital in all industries within a region. The total GDP for Iowa's industries in 2008 was \$135.7 billion.

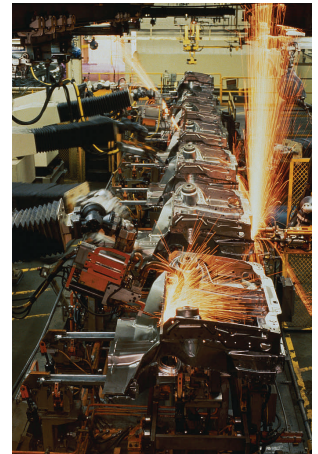
The manufacturing sector contributed \$28.2 billion toward Iowa's GDP in 2008, representing 20.8% of the state total. Iowa ranks 2nd among all states in the percentage of total GDP derived from the manufacturing sector.

Iowa's manufacturing sector ranks 1st in size among the major sectors within the state. In order of GDP, the top three sectors in Iowa are Manufacturing; Services; and Government. The top three GDP sectors in the United States are Services; Real estate; and Government.

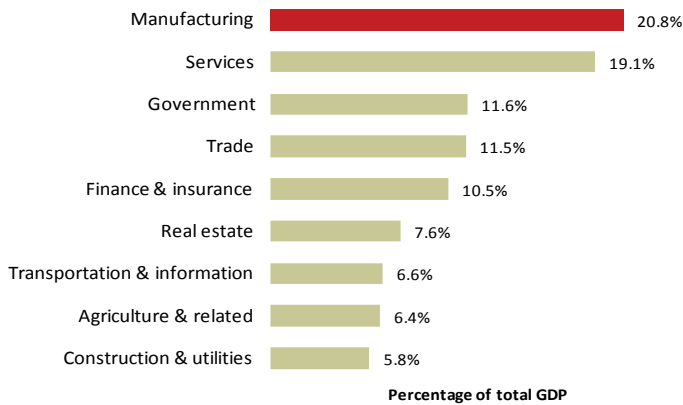
Measured by Employment. Total employment is defined as the total number of full-time and part-time jobs, with all jobs weighted equally. In 2008, Iowa's total employment was 2,025,350 jobs.

Iowa's manufacturing employment in 2008 was 234,280 jobs, representing 11.6% of the state's total employment. In the United States, manufacturing accounted for 7.8% of total employment.

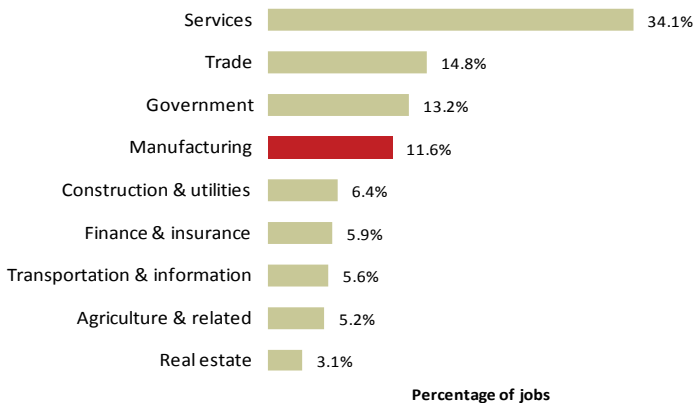
Measured by employment, Iowa's manufacturing sector ranks 4th in size among the state's major sectors. The top three employment sectors in Iowa are Services; Trade; and Government.



GROSS DOMESTIC PRODUCT



EMPLOYMENT



Top 10 States by % of GDP from Manufacturing

Indiana	25.0%
Iowa	20.8%
Wisconsin	20.3%
North Carolina	19.5%
Oregon	18.7%
Kentucky	18.4%
Louisiana	18.2%
Ohio	17.8%
Arkansas	17.4%
Alabama	17.2%

Iowa's Top Three Sectors Ranked by GDP (\$Billions)

Manufacturing	\$28.2
Services	\$26.0
Government	\$15.8

Iowa's Top Three Sectors Ranked by Employment

Services	691,393
Trade	300,354
Government	266,355

Source: U.S. Bureau of Economic Analysis

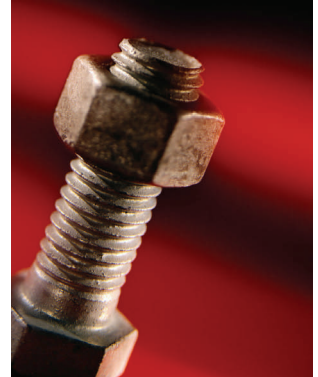
IOWA'S DIVERSE MANUFACTURING SECTOR

Durable and Non-Durable Goods. The varied manufacturing industries are frequently grouped into durable and non-durable goods categories. Durable goods are tangible products that can be stored or inventoried and that have an average life of at least three years. Nondurable goods have an average life of less than three years.

Iowa's manufacturing activity is weighted toward durable goods manufacturing. Durable goods production accounts for 57% of manufacturing GDP and 61% of manufacturing jobs. Nationally, durable goods account for 57% of manufacturing GDP and 63% of manufacturing jobs.

Key Industries. When measured by 2007 GDP, Iowa's top three manufacturing industries are Machinery; Chemicals; and Food And Beverages. Together, they account for 57% of Iowa's manufacturing GDP, 44% of manufacturing employment, and 24% of all manufacturing establishments.

When measured by 2008 employment, the rankings for Iowa's largest manufacturing industries change slightly. Iowa's top three manufacturing industries by employment size are Food And Beverages; Machinery; and Fabricated Metals.



EMPLOYMENT IN DURABLE AND NON-DURABLE GOODS INDUSTRIES

Employment in Durable Goods Industries

Machinery.....	39,539
Fabricated metals.....	21,703
Transportation equipment.....	17,192
Computers and electronics.....	14,098
Wood products.....	11,551
Furniture and related products.....	9,698
Primary metals.....	8,843
Electrical equipment & appliances.....	7,936
Miscellaneous.....	6,177
Nonmetallic mineral products.....	5,723
<i>Total, durable goods.....</i>	<i>142,460</i>

Employment in Non-Durable Goods Industries

Food and beverages.....	53,152
Plastics and rubber products.....	12,398
Chemicals.....	9,935
Printing and related.....	8,767
Paper.....	4,230
Apparel.....	2,099
Textile and textile product mills.....	890
Petroleum and coal.....	349
<i>Total, non-durable goods.....</i>	<i>91,820</i>

IOWA'S TOP 10 MANUFACTURING INDUSTRIES BY GDP

	GDP (\$mil)	% of Iowa Manufacturing Totals			Comparative U.S. %	
		GDP	Jobs	Estab.	GDP	Jobs
Machinery.....	5,891	21.9%	16.9%	8.9%	7.8%	8.8%
Chemicals.....	4,811	17.9%	4.2%	3.0%	15.4%	6.2%
Food and beverages.....	4,586	17.0%	22.7%	12.1%	10.8%	12.6%
Fabricated metals.....	1,807	6.7%	9.3%	15.0%	8.7%	11.3%
Electrical equipment & appliances.....	1,552	5.8%	3.4%	1.5%	3.6%	3.1%
Transportation equipment.....	1,183	4.4%	7.3%	3.2%	12.0%	11.5%
Primary metals.....	1,008	3.7%	3.8%	2.0%	3.9%	3.2%
Plastics and rubber products.....	985	3.7%	5.3%	3.4%	4.1%	5.3%
Furniture and related products.....	946	3.5%	4.1%	6.0%	2.2%	3.7%
Nonmetallic mineral products.....	945	3.5%	2.4%	6.2%	3.4%	3.4%

Sources: U.S. Bureau of Economic Analysis and County Business Patterns, U.S. Census Bureau

AVERAGE WAGE AND SALARY EARNINGS

By Sector and Industry. Iowa's manufacturing workers earned an average of \$47,180 in wages and salaries during 2008. Their earnings were 85.4% percent of the U.S. manufacturing sector average. In comparison, workers across all sectors of Iowa's economy earned \$36,200 per job, which was 79.2% percent of the overall national average for all sectors.

Iowa's manufacturing sector ranked 2nd among the state's major sectors in average wage and salary earnings per job. By detailed industry, average earnings were highest in Computers & electronics manufacturing.

By County. Manufacturing earnings vary across the state, with higher levels typically found in and near metropolitan areas. In 2008, the top three counties by average manufacturing earnings per job were Linn, Black Hawk, and Monroe.

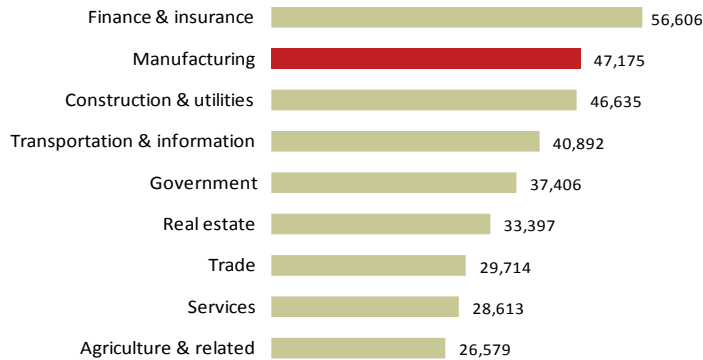
In 2008, average manufacturing earnings in 81 of Iowa's 99 counties were below the statewide manufacturing average of \$47,180. Of these, 25 counties had average earnings below 75% of the statewide manufacturing average.



AVERAGE WAGES IN IOWA'S MANUFACTURING INDUSTRIES

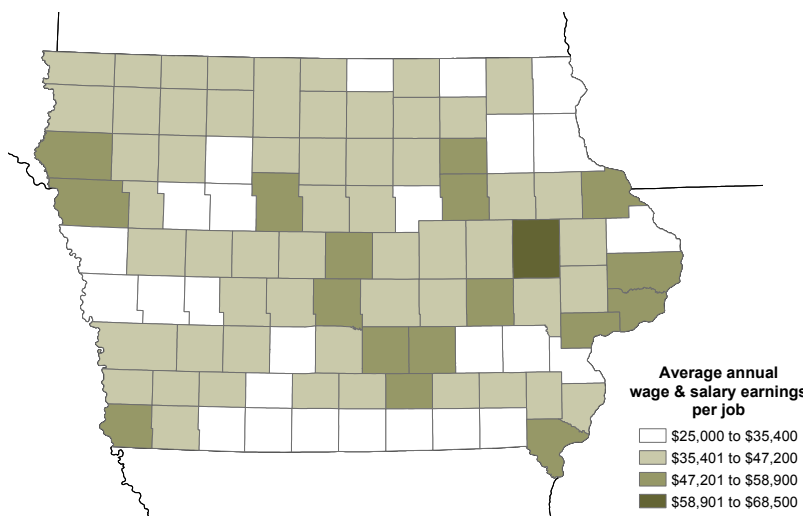
Wages & Salaries Per Job (\$000s)	
Computers & electronics.....	68.0
Chemicals.....	58.9
Petroleum and coal.....	56.6
Machinery.....	56.4
Primary metals.....	50.9
Elect. equipment & appliances.....	48.5
Paper.....	47.6
Plastics and rubber products.....	44.1
Nonmetallic minerals.....	43.1
Food.....	42.6
Fabricated metals.....	42.0
Wood products.....	41.1
Miscellaneous.....	39.4
Furniture and related.....	39.2
Beverage and tobacco.....	37.6
Printing and related.....	37.2
Leather and allied products.....	33.8
Textile mills.....	32.4
Apparel.....	29.1
Textile product mills.....	25.3
Transportation equipment.....	(N/A)

AVERAGE WAGES BY MAJOR SECTOR



Average wage and salary earnings per job (\$)

AVERAGE MANUFACTURING WAGES BY COUNTY



Iowa's Top 10 Counties Ranked by Average Manufacturing Wages Per Job (% of Iowa mfg. average)

Linn	145%
Black Hawk	123%
Monroe	113%
Webster	111%
Scott	110%
Polk	109%
Muscatine	109%
Clinton	107%
Marion	106%
Dubuque	104%

Sources: U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics

EXPORTS FROM IOWA

By Origin and Destination. The state of Iowa was the transportation origin for \$10.66 billion worth of manufactured export goods in 2008, ranking 27th among the states on this measure (see Export Data Notes).

The greatest share (45.3 percent) of Iowa's manufactured exports were shipped to countries in North America. Asia and Europe followed in second and third place, respectively.

Canada was the top destination country for manufactured goods exported from Iowa in 2008, followed by Mexico and Japan. Together, these three countries accounted for 51.8 percent of the total dollar value of manufactured goods exported from Iowa.

By Type of Good. Manufactured goods accounted for 87.9 percent of the \$12.12 billion worth of merchandise that was exported from Iowa in 2008. Merchandise exports include all tangible products, for example, manufactured items, raw materials, and unprocessed agricultural commodities such as grain and livestock.

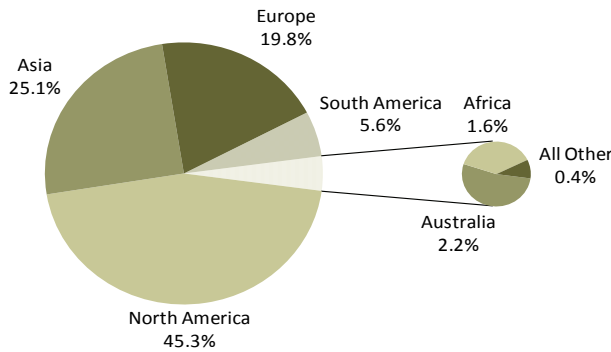
Iowa's single largest manufacturing export industry was Machinery manufacturing, which accounted for 32.7 percent of Iowa's manufacturing exports. The second and third largest manufacturing export industries in Iowa were Processed Foods and Chemical manufacturing.



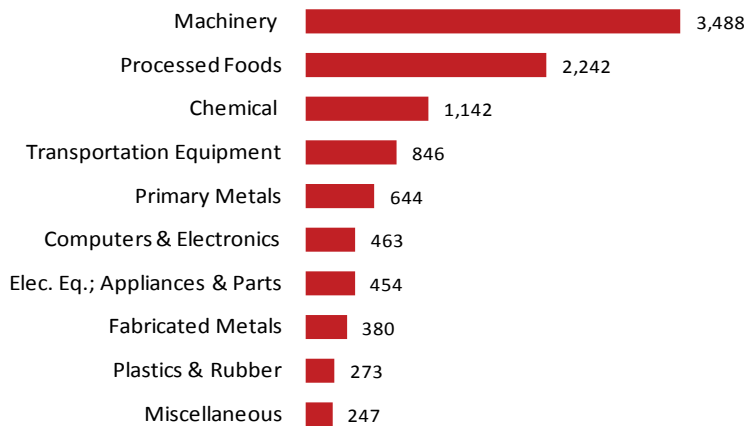
TOP 10 DESTINATION COUNTRIES FOR IOWA MANUFACTURING EXPORTS

Exports (\$millions)	
Canada.....	3,799
Mexico.....	911
Japan.....	812
Germany.....	566
Russian Federation.....	377
Brazil.....	347
United Kingdom.....	316
France.....	311
China.....	270
Australia.....	239

DESTINATIONS OF IOWA MANUFACTURING EXPORTS



IOWA'S TOP 10 MANUFACTURING EXPORT INDUSTRIES



Value of manufacturing exports in \$ millions

IMPORTANT NOTES ON EXPORT DATA

Interpretion of Trade Data:

The trade statistics on this page are based on Origin of Movement (OM) data from the U.S. Department of Commerce. OM data credit export merchandise to the state where the goods began their final journey to the point of exit from the United States, as specified on official U.S. export declarations filed by shippers.

The OM can be either the location of the factory where the export item was produced or, in many cases, the location of a distributor, warehouse, or cargo processing facility. The OM series does not furnish reliable data on the production origin of U.S. exports.

Source: ITA Trade Stats Express, Office of Trade and Industry Information (OTII), International Trade Administration, U.S. Department of Commerce

GDP AND EMPLOYMENT TRENDS

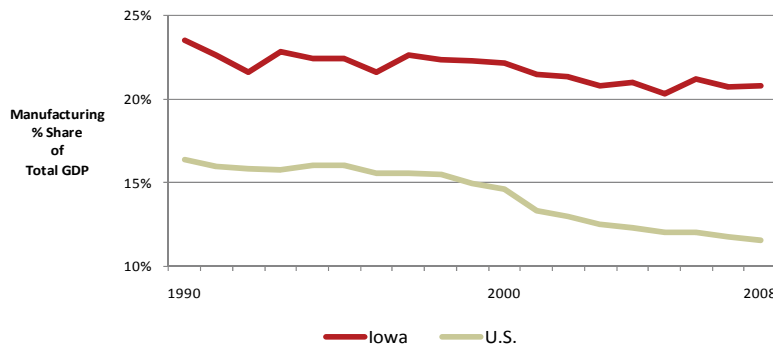
GDP Trends. Iowa's Gross Domestic Product (GDP) from manufacturing grew at an inflation-adjusted rate of 15.4 percent between 2000 and 2008, while the growth rate for the state's overall economy was 23.0 percent. In the United States, manufacturing GDP declined by 6.2 percent. Total GDP for the U.S. grew at a real rate of 18.7 percent.

The manufacturing sector has contributed a declining share of the nation's total GDP in recent years. Between 1990 and 2008, the share of U.S. GDP from manufacturing fell from 16.4 percent to 11.6 percent. In Iowa, the share of total GDP from manufacturing fell from 23.5 percent to 20.8 percent.

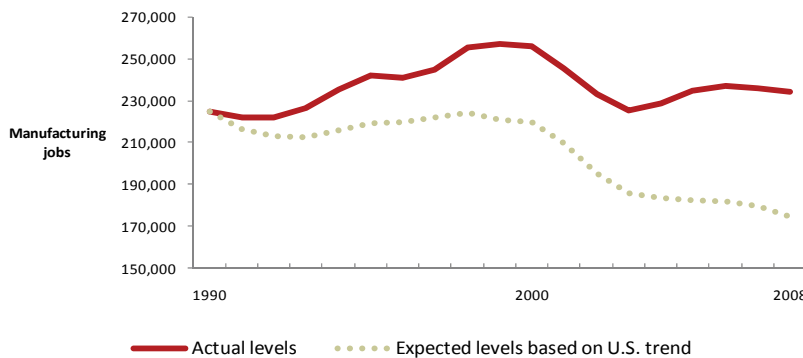
Iowa's contribution toward the U.S. total manufacturing GDP has been growing in recent decades: Iowa's share was 1.7 percent in 2008 compared to 1.4 percent in 1990. Across all sectors in 2008, Iowa contributed 1.0 percent of total GDP in the United States.

Employment Trends. Iowa's manufacturing sector has fared slightly better than average during two decades of U.S. manufacturing job losses. During the 1990s, Iowa's manufacturing employment grew by 14.0 percent while U.S. manufacturing employment dropped by 2.0 percent. Since 2000, Iowa's manufacturing employment has declined by 8.4 percent compared to a U.S. decline of 20.6 percent.

MANUFACTURING SECTOR'S SHARE OF TOTAL GDP



MANUFACTURING EMPLOYMENT LEVEL



The solid, red line in the graph above illustrates Iowa's actual, annual manufacturing employment level since the year 1990. The dashed, tan line shows an "expected" level if Iowa had followed the national trend in manufacturing employment change during the years shown.

Manufacturing Share of Total GDP

Iowa	
1990	23.5%
2008	20.8%

United States	
1990	16.4%
2008	11.6%

Iowa's Share of U.S. GDP

1990	
All Sectors	1.0%
Manufacturing	1.4%

2007	
All Sectors	1.0%
Manufacturing	1.7%

Real GDP % Change, 2000-2008

Iowa	
All Sectors	23.0%
Manufacturing	15.4%

United States	
All Sectors	18.7%
Manufacturing	(6.2%)

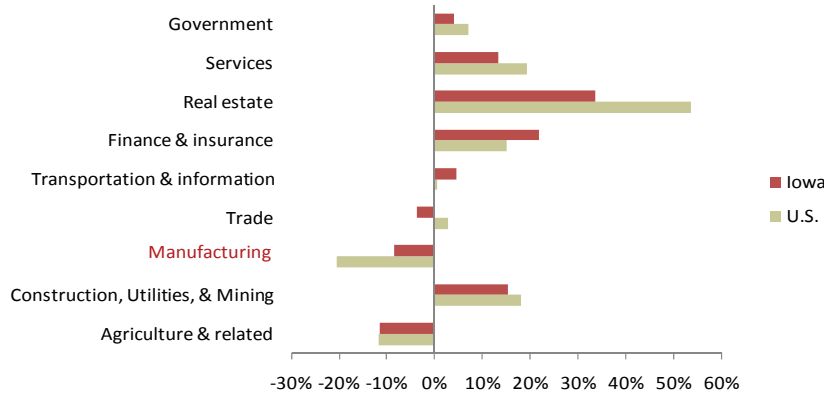
Employment % Change, 2000-2008

Iowa	
All Sectors	5.4%
Manufacturing	(8.4%)

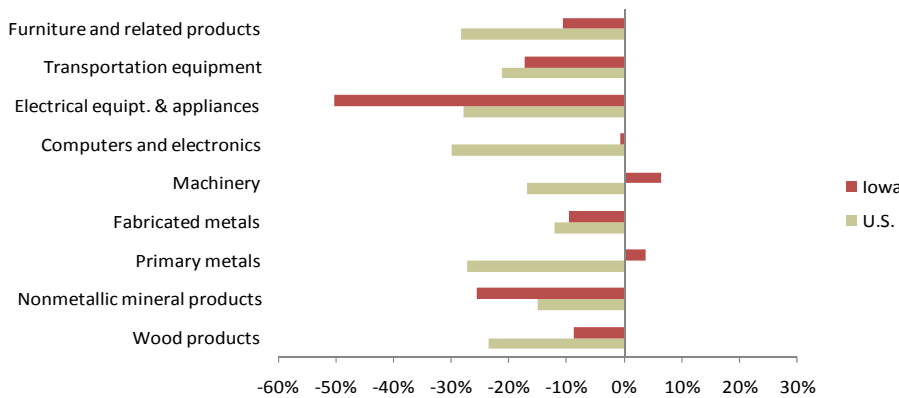
United States	
All Sectors	9.9%
Manufacturing	(20.6%)

Source: U.S. Bureau of Economic Analysis

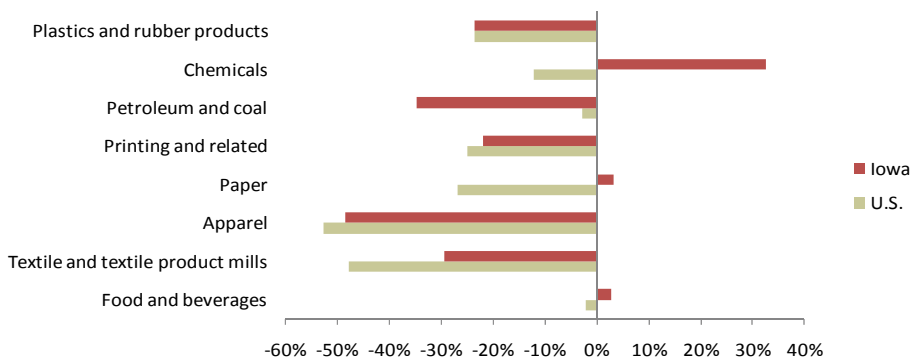
2000-2008 % JOB CHANGE BY SECTOR



2000-2008 % JOB CHANGE: DURABLE GOODS



2000-2008 % JOB CHANGE: NON-DURABLE GOODS



2000-2008 Job Change in Iowa (thousands of jobs)

By Sector	Change (thousands)
Agriculture & related	(13.9)
Construction, Mining, & Utilities	17.2
Manufacturing	(21.4)
Trade	(11.7)
Transportation & Information	5.0
Finance & Insurance	21.7
Real Estate	16.0
Services	81.6
Government	10.1

By Manufacturing Industry Durable Goods

Furniture and related products	(1.2)
Transportation equipment	(3.6)
Electrical equipt. & appliances	(8.0)
Computers and electronics	(0.1)
Machinery	2.4
Fabricated metals	(2.3)
Primary metals	0.3
Nonmetallic mineral products	(2.0)
Wood products	(1.1)

Non-Durable Goods

Plastics and rubber products	(3.8)
Chemicals	2.4
Petroleum and coal	(0.2)
Printing and related	(2.5)
Paper	0.1
Apparel	(2.0)
Textile and textile product mills	(0.4)
Food and beverages	1.4

Miscellaneous Mfg. (1.0)

Source: U.S. Bureau of Economic Analysis

CONTRIBUTIONS TO LOCAL ECONOMIES

The manufacturing sector contributes to local economies in Iowa in a number of ways. Manufacturing firms pay wages to local workers, they purchase commodity and service inputs from local producers and firms, their profits accrue to local owners and investors, and they pay taxes to local and state governments.

Among Iowa's 99 counties, 10 have more than one quarter of their local jobs in the manufacturing sector. Another 59 counties have between 10 and 25 percent of their jobs in manufacturing. On

average, manufacturing employment accounts for 12.3% percent of total jobs in Iowa's counties.

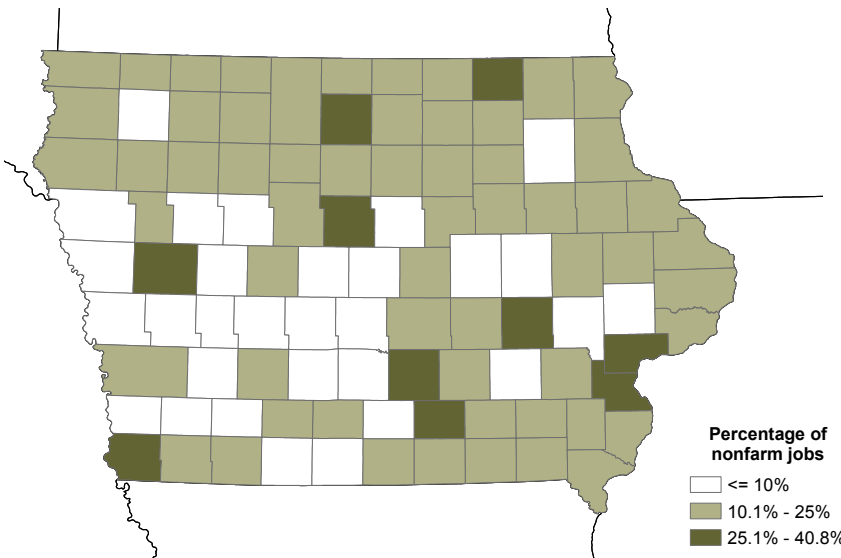
The locations of Iowa's manufacturing firms depend in part on the local labor supply. For example, 41.4% percent of Iowa's manufacturing jobs are located in the state's 10 most populous counties.

Even counties with relatively low numbers of manufacturing jobs may depend on the manufacturing sector as a source of earnings for local residents.

Iowans are willing to commute relatively long distances for good manufacturing jobs. The average commute time for workers in the manufacturing sector was nearly twice the average for all workers in Iowa in 2000.

Based on the fraction of local workers' earnings from the manufacturing sector, 32 of Iowa's 99 counties are classified as "manufacturing-dependent" according to criteria developed by the U.S. Department of Agriculture's Economic Research Service (ERS).

MANUFACTURING PERCENTAGE OF NONFARM EMPLOYMENT



MANUFACTURING-DEPENDENT COUNTIES

Number of Counties by Dependency Type (ERS)

Non-specialized.....	46
Manufacturing dependent.....	32
Farming dependent.....	13
Service dependent.....	5
Government dependent.....	3
Mining dependent.....	-
Total.....	99

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