

MANUFACTURING IN IOWA

NOVEMBER 2011

INSIDE:

SECTOR SIZE	2
KEY INDUSTRIES	3
EARNINGS	4
EXPORTS	5
JOB TRENDS	6
GDP TRENDS	7
COUNTY DEPENDENCE	8

OVERVIEW

Iowa's competitive strengths in manufacturing emerged early in the state's history. By 1900, Iowa ranked among the top ten states in the production of food preparations, meatpacking, dairy products, clay products, and lumber and mill products.

Today, Iowa's manufacturing sector contributes a sizeable share of the state's gross domestic product (GDP). 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.

Top 10 States by % of GDP from Manufacturing

Indiana	27.2%
Oregon	22.2%
North Carolina	19.3%
Wisconsin	19.0%
Louisiana	18.1%
Iowa	17.8%
Kentucky	17.1%
Mississippi	17.0%
Michigan	16.9%
Ohio	16.7%

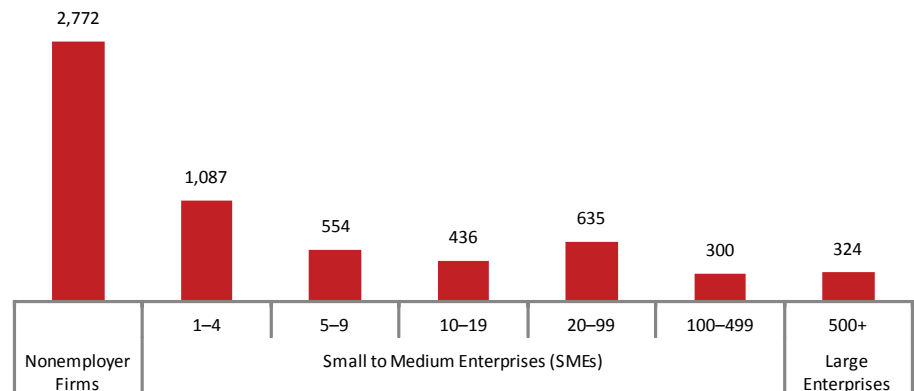
Source: U.S. Bureau of Economic Analysis

IOWA'S MANUFACTURING FIRMS

Iowa is home to more than 6,100 manufacturing firms operating from 6,440 physical establishments throughout the state.

A large fraction of Iowa's manufacturing firms are small proprietorships or partnerships with no paid employees other than the principals. Known as "nonemployer firms," these establishments comprise 46.4 percent of Iowa's manufacturing firms. Another 49.3 percent of Iowa's manufacturing firms are owned by small or medium-sized enterprises (SMEs) with fewer than 500 paid employees. Large manufacturing enterprises, with 500 or more employees, account for 5.3 percent of Iowa's manufacturing firms.

Number of Firms by Employment Size of the Parent Enterprise



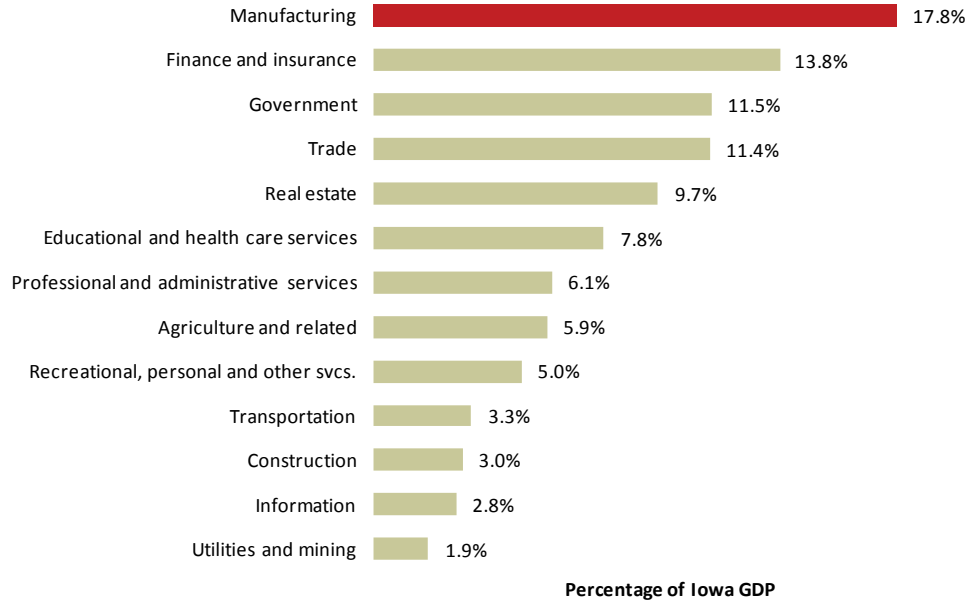
Source: U.S. Census Bureau

GROSS DOMESTIC PRODUCT

Gross domestic product (GDP) measures the contributions of labor and capital to the market value of goods and services produced in a state. The total GDP for Iowa's industries in 2010 was \$142.7 billion.

The manufacturing sector contributed \$25.4 billion to Iowa's economy in 2010, representing 17.8 percent of the state's total GDP. Iowa ranks sixth among all states in the percentage of GDP derived from the manufacturing sector.

When measured by GDP size, manufacturing ranks first among Iowa's major economic sectors. Manufacturing ranks fourth in GDP size among major economic sectors in the United States.

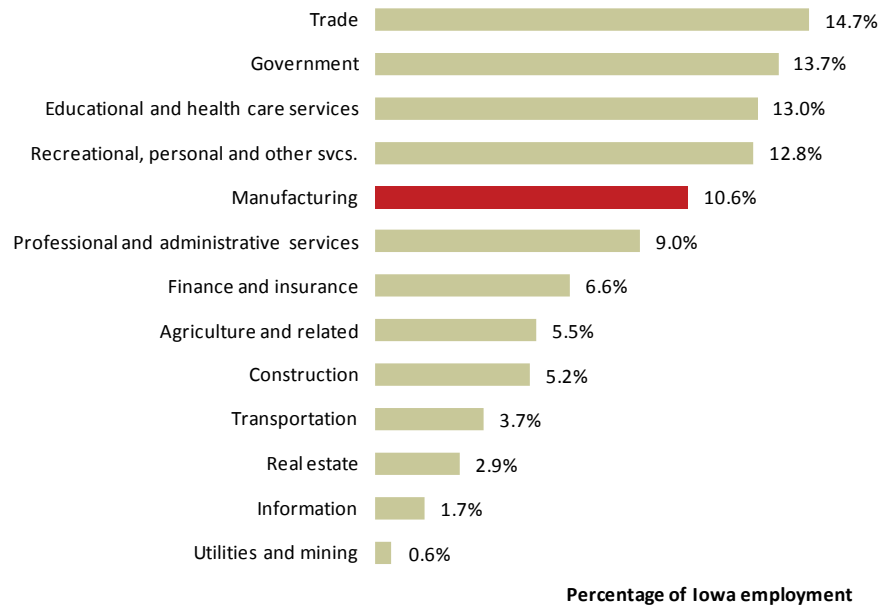


EMPLOYMENT

Measures of industry employment generally count the number of jobs in a region, as opposed to the number of employed persons. The job counts include full-time and part-time jobs, with all jobs weighted equally.

Iowa's manufacturing sector had 207,509 jobs in 2010, accounting for 10.6 percent of the state's total 1,951,354 jobs. In the United States, manufacturing accounted for 7.0 percent of total employment.

When measured by total employment, manufacturing ranks fifth in size among Iowa's major economic sectors. Manufacturing ranks sixth among major sectors in the United States.



Source: U.S. Bureau of Economic Analysis

Note: Agriculture and related industries include production agriculture, agricultural services, forestry, fishing, hunting, and mining. Activities such as grain processing, ethanol production, meat slaughtering and processing, agricultural chemical and fertilizer production, and agricultural equipment manufacturing are classified within the manufacturing sector, per national industrial accounting standards.

IOWA'S DIVERSE MANUFACTURING SECTOR

Durable and Nondurable Goods

Industries within the manufacturing sector are frequently grouped into two broad categories: durable goods and nondurable goods. 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.

Durable goods production accounts for 49.7 percent of manufacturing GDP and 58.1 percent of manufacturing jobs. Nationally, durable goods account for 54.7 percent of manufacturing GDP and 61.3 percent of manufacturing jobs.

Key Industries

When measured by GDP, the top three manufacturing industries in 2009 were Food and beverages, Machinery, and Chemicals. Together, they accounted for 59.4 percent of Iowa's manufacturing GDP.

The rankings change slightly when measuring by employment size instead of GDP. Iowa's top three manufacturing industries by number of jobs in 2010 were Food and beverages, Machinery, and Fabricated metals.

Specialization

A "location quotient," which divides the statewide percentage of employment in a given industry by that same industry's percentage of U.S. employment, may be used to identify areas of relative specialization within a state's economy. A location quotient greater than one indicates specialization and suggests the state has a relative competitive advantage in that industry. Iowa's manufacturing industry location quotients are shown in the table below.

DURABLE GOODS EMPLOYMENT

Machinery.....	35,188
Fabricated metals.....	17,846
Transportation equipment.....	14,229
Computers and electronics.....	13,091
Wood products.....	9,238
Primary metals.....	7,406
Furniture and related products.....	6,910
Electrical equipment and appliances.....	6,550
Miscellaneous.....	5,284
Nonmetallic mineral products.....	4,894
<i>Total, durable goods.....</i>	<i>120,636</i>

NONDURABLE GOODS EMPLOYMENT

Food and beverages.....	52,644
Plastics and rubber products.....	9,797
Chemicals.....	9,739
Printing and related.....	7,883
Paper.....	3,850
Apparel.....	1,622
Textile and textile product mills.....	965
Petroleum and coal.....	373
<i>Total, non-durable goods.....</i>	<i>86,873</i>

IOWA'S MANUFACTURING INDUSTRIES RANKED BY GDP

	GDP (\$ millions)	% of Iowa Manufacturing Totals			Comparative U.S. %		Location Quotient
		GDP	Jobs	Estab.	GDP	Jobs	
Food and beverages.....	6,403	27.7%	25.4%	13.0%	13.0%	13.9%	1.82
Machinery.....	4,312	18.7%	17.0%	8.7%	7.1%	8.6%	1.98
Chemicals.....	3,018	13.1%	4.7%	3.9%	13.7%	6.7%	0.70
Fabricated metals.....	1,454	6.3%	8.6%	15.8%	7.7%	11.0%	0.78
Computers and electronics.....	1,180	5.1%	6.3%	1.7%	13.0%	9.2%	0.69
Plastics and rubber products.....	885	3.8%	4.7%	3.4%	3.6%	5.2%	0.90
Transportation equipment.....	833	3.6%	6.9%	3.0%	10.7%	11.0%	0.62
Electrical equipment and appliances.....	832	3.6%	3.2%	1.4%	3.3%	3.0%	1.03
Primary metals.....	719	3.1%	3.6%	1.6%	2.7%	3.1%	1.17
Paper.....	609	2.6%	1.9%	0.9%	3.5%	3.3%	0.57
Furniture and related products.....	598	2.6%	3.3%	5.5%	1.5%	3.3%	1.02
Nonmetallic mineral products.....	595	2.6%	2.4%	6.1%	2.4%	3.2%	0.74
Wood products.....	496	2.1%	4.5%	7.7%	1.3%	3.2%	1.37
Miscellaneous.....	475	2.1%	2.5%	13.1%	5.0%	5.7%	0.45
Printing and related.....	443	1.9%	3.8%	7.7%	2.1%	4.6%	0.82
Petroleum and coal.....	125	0.5%	0.2%	0.4%	7.6%	0.9%	0.19
Textile and textile product mills.....	74	0.3%	0.5%	2.0%	1.1%	2.1%	0.22
Apparel.....	56	0.2%	0.8%	4.2%	0.7%	1.9%	0.40

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

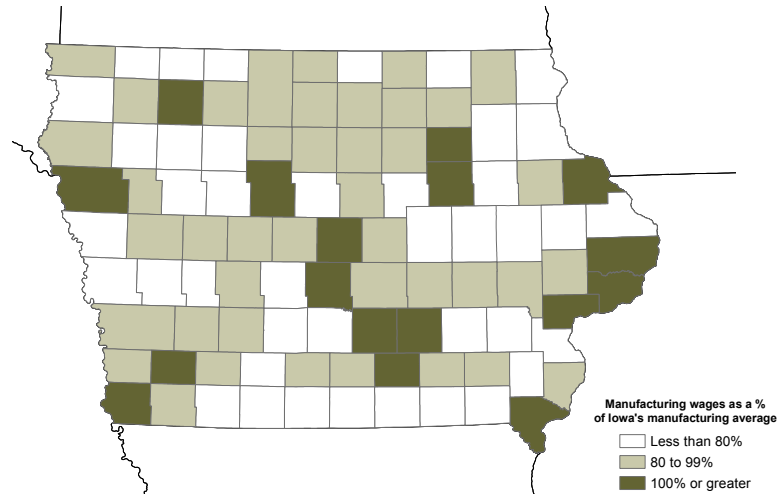
Iowa's manufacturing workers earned an average of \$49,770 in wages and salaries during 2010. Their earnings were 85.1 percent of the U.S. manufacturing sector average. Workers across all sectors of Iowa's economy earned an average of \$37,420 per job, which was 79.5 percent of the U.S. all-sector average.

Manufacturing ranked third among Iowa's major sectors in average wage and salary earnings per job. By detailed industry, average earnings were highest in Computers & electronics manufacturing.

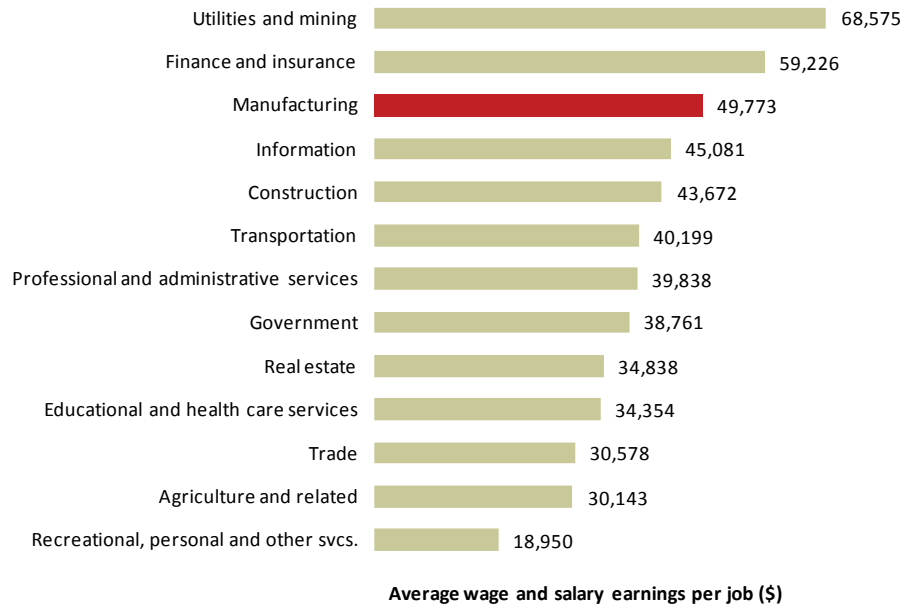
Manufacturing wages vary across the state, with higher levels typically found in and near metropolitan areas and larger cities. In 2010, the top three counties by average manufacturing wages and salaries per job were Linn (\$72,718), Black Hawk (\$60,500), and Monroe (\$56,454).

In 2010, average manufacturing earnings in 81 of Iowa's 99 counties were below the statewide manufacturing average of \$49,770. Of these, 40 counties had average earnings below 80 percent of the statewide manufacturing average.

AVERAGE MANUFACTURING WAGES BY COUNTY



IOWA AVERAGE WAGES BY MAJOR SECTOR



AVERAGE WAGES IN IOWA'S MANUFACTURING INDUSTRIES

Industry	Wages and Salaries per Job (\$000s)
Computers and electronics.....	73.2
Chemicals.....	63.7
Machinery.....	59.9
Petroleum and coal.....	54.5
Primary metals.....	54.1
Paper.....	51.2
Electrical equipment and appliances...	47.4
Plastics and rubber products.....	46.5
Fabricated metals.....	44.6
Food.....	44.2
Nonmetallic minerals.....	43.3
Furniture and related.....	42.0
Wood products.....	41.7
Miscellaneous.....	39.8
Beverage and tobacco.....	37.9
Printing and related.....	37.6
Textile mills.....	33.3
Apparel.....	33.2
Leather and allied products.....	30.2
Textile product mills.....	25.2
Transportation equipment.....	(N/A)

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

EXPORTS FROM IOWA

By Origin and Destination

The state of Iowa was the transportation origin for \$9.58 billion worth of manufactured export goods in 2010, ranking 28th among the states on this measure (see Important Notes on Export Data).

The greatest share (48.6 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 2010, followed by Mexico and Japan. Together, these three countries accounted for 56.2 percent of the total dollar value of manufactured goods exported from Iowa.

By Type of Good

In 2010, Iowa exported \$10.9 billion worth of tangible merchandise including agricultural commodities, raw materials, and manufactured goods. Manufactured goods accounted for 87.9 percent of Iowa's total exports. Agricultural and other goods that were originally produced in Iowa but exported from other states are not reflected in these values (see Important Notes on Export Data).

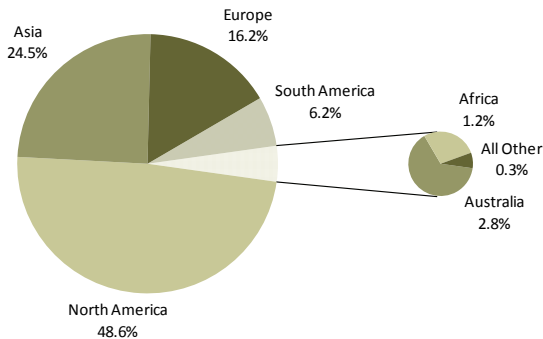
Iowa's single largest manufacturing export industry was Machinery manufacturing, which accounted for 30.1 percent of the state's manufacturing exports. The second and third largest manufacturing export industries in Iowa were Processed Foods and Chemical manufacturing.



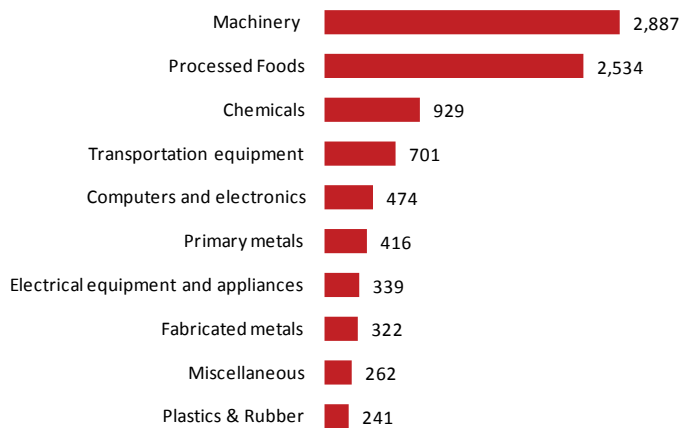
TOP 10 DESTINATION COUNTRIES FOR IOWA MANUFACTURING EXPORTS

Exports (\$ millions)	
Canada.....	3,347
Mexico.....	1,206
Japan.....	830
Germany.....	472
Brazil.....	350
China.....	320
Australia.....	273
France.....	239
United Kingdom.....	232
South Korea.....	219

DESTINATIONS OF IOWA MANUFACTURING EXPORTS



IOWA'S TOP 10 MANUFACTURING EXPORT INDUSTRIES



Value of manufacturing exports in \$ millions

IMPORTANT NOTES ON EXPORT DATA

Origin of Movement

The trade statistics on this page are based on origin of movement (OM) data from the U.S. Department of Commerce. These data credit exports 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 place from which merchandise began its export journey is not necessarily the place where the merchandise was produced. In many cases, the OM is the location of a distributor, warehouse, or cargo processing facility. As such, OM cannot be used to reliably describe the production origin of U.S. exports.

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

Employment Trends

During the 1990s, Iowa’s manufacturing employment grew by 14.0 percent, whereas U.S. manufacturing employment dropped by 2.0 percent. Since 2000, Iowa’s manufacturing employment has declined by 18.8 percent compared to a U.S. decline of 31.2 percent.

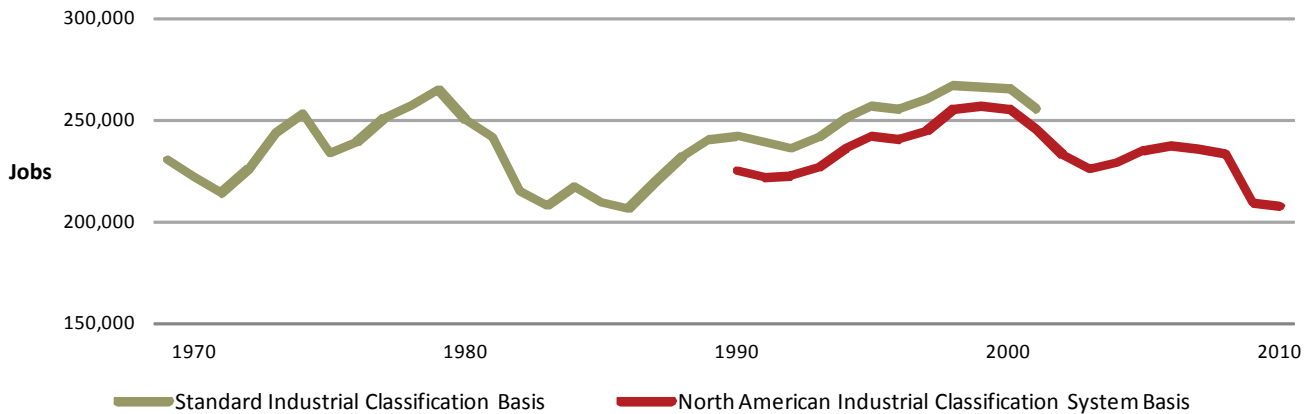
Manufacturing activity requires a smaller share of all Iowa and U.S. jobs compared to years past. Between 1990 and 2010, the sector’s share of total jobs fell from 13.1 to 7.0 percent nationally and from 13.7 to 10.6 percent in Iowa.

GDP Trends

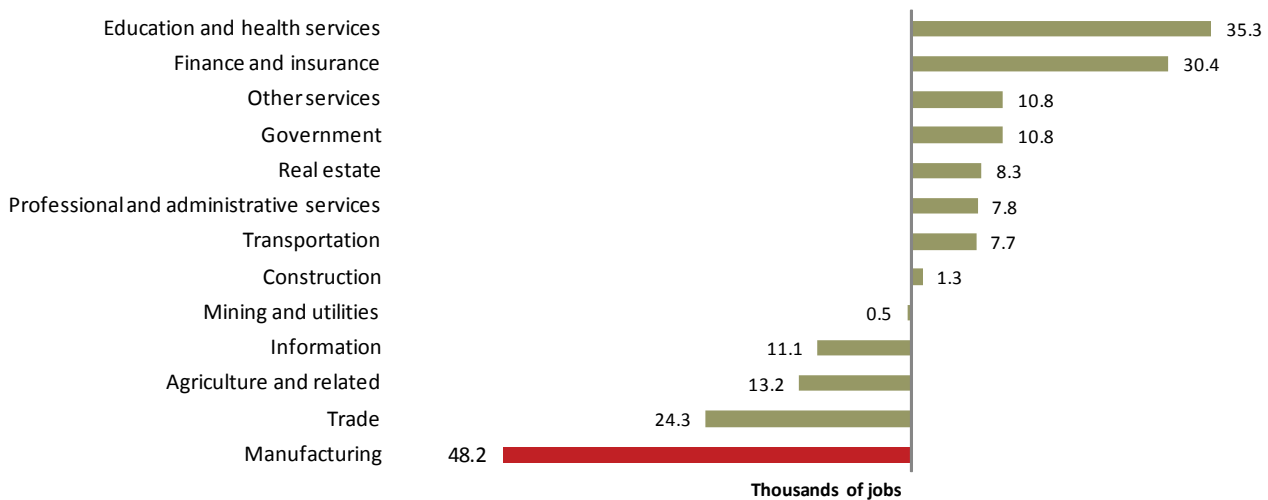
Iowa’s GDP from manufacturing grew at an inflation-adjusted rate of 9.2 percent between 2000 and 2010. In the United States, manufacturing GDP grew by 11.3 percent.

Manufacturing has accounted for a declining share of U.S. GDP in recent decades, with the manufacturing sector’s contribution falling from 16.4 to 11.8 percent between 1990 and 2010. In Iowa, the share of total GDP contributed by the manufacturing sector fell from 23.5 to 17.8 percent during that same time period.

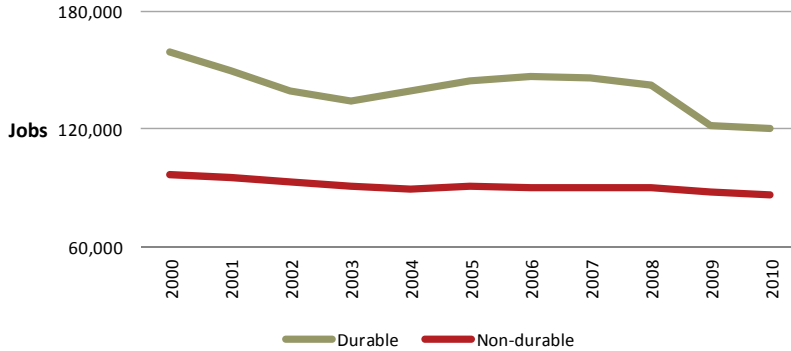
IOWA’S HISTORICAL MANUFACTURING EMPLOYMENT



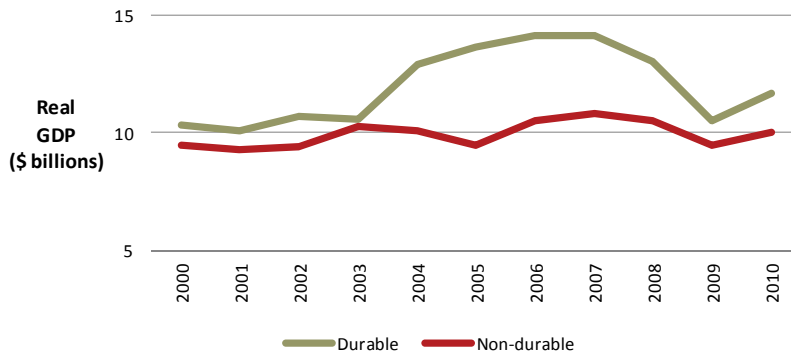
IOWA’S 2000–2010 EMPLOYMENT CHANGE BY SECTOR (THOUSANDS OF JOBS)



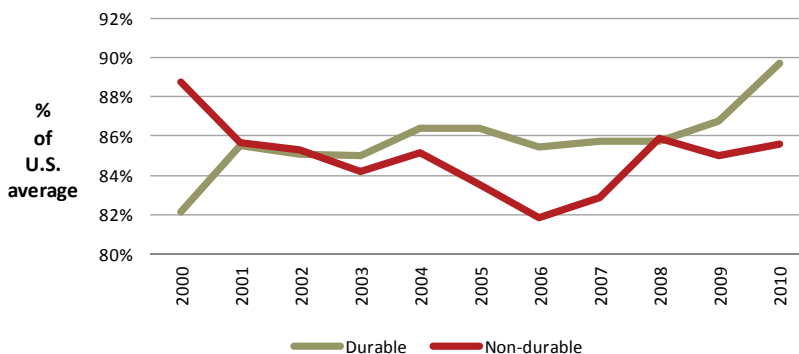
JOBS: DURABLE AND NONDURABLE GOODS



GDP: DURABLE AND NONDURABLE GOODS



EARNINGS PER JOB COMPARED TO U.S. AVERAGES: DURABLE AND NONDURABLE GOODS



Real GDP % Change, 2000-2010

Iowa	
All Sectors	21.3%
Manufacturing	9.2%
Durable goods	12.6%
Nondurable goods	5.4%
United States	
All Sectors	16.7%
Manufacturing	11.3%
Durable goods	26.1%
Nondurable goods	(4.9%)

Employment % Change, 2000-2010

Iowa	
All Sectors	1.6%
Manufacturing	(18.8%)
Durable goods	(24.2%)
Nondurable	(10.1%)
United States	
All Sectors	5.1%
Manufacturing	(31.2%)
Durable goods	(33.0%)
Nondurable	(28.3%)

2000-2010 Iowa Manufacturing Job Gains/Losses (000s of jobs)

Durable Goods	
Furniture and related products	(4.0)
Transportation equipment	(6.6)
Electrical equipt. & appliances	(9.4)
Computers and electronics	(1.1)
Machinery	(2.0)
Fabricated metals	(6.2)
Primary metals	(1.1)
Nonmetallic mineral products	(2.8)
Wood products	(3.4)

Nondurable Goods	
Plastics and rubber products	(6.4)
Chemicals	2.2
Petroleum and coal	(0.2)
Printing and related	(3.4)
Paper	(0.3)
Apparel	(2.5)
Textile and textile product mills	(0.3)
Food and beverages	0.9

Miscellaneous Manufacturing (1.9)

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.

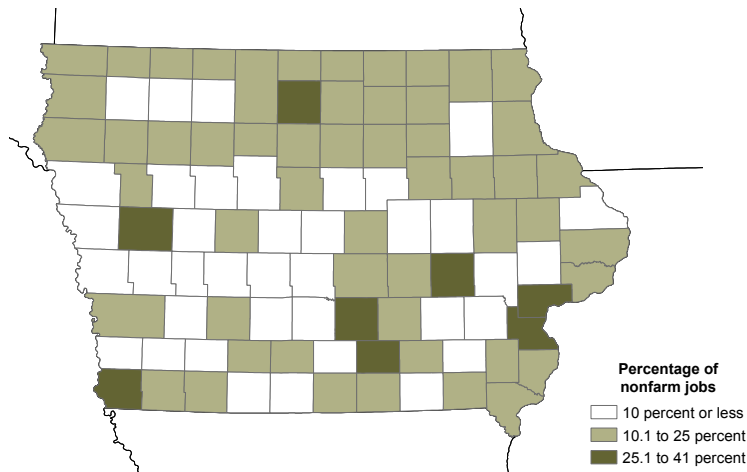
Among Iowa's 99 counties, 8 counties have more than one-quarter of their local

jobs in the manufacturing sector. Another 53 counties have between 10 and 25 percent of their jobs in manufacturing.

On average, manufacturing jobs represent 15.2 percent of total nonfarm employment across Iowa's 79 non-metropolitan counties. The manufacturing sector accounts for 8.6 percent of total nonfarm jobs in Iowa's metropolitan areas.

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

MANUFACTURING PERCENTAGE OF NONFARM EMPLOYMENT



MANUFACTURING DEPENDENT COUNTIES

Number of Counties by Dependency Type (ERS)

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

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