

# Iowa's Workforce and the Economy



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2012



# Iowa's Workforce and the Economy 2012

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## Message from the Director

Iowa's economy has moved forward and become much stronger since the nation's recession officially ended in June 2009. The 2012 edition of Iowa's Workforce and the Economy highlights a number of metrics that mark this progress. Many of the positive developments that occurred in 2011 were driven by Iowa's prospering agricultural economy and its strong advanced manufacturing sector. Articles on both sectors are contained in this publication.

A common theme in this year's Iowa's Workforce and the Economy is the need to innovate to keep the state competitive in an increasingly global environment. The new era of advanced manufacturing and other technology-driven industries requires more high school and college graduates with greater proficiency in science, technology, engineering and mathematics (STEM). To keep innovation alive, Iowa needs to build a workforce that has a sound foundation in these disciplines. In 2011, the Governor issued Executive Order 74 that created a STEM Advisory Council with the primary objective of increasing the state's achievement in the STEM occupations. The state's current initiatives are described in an article contributed by a renowned authority on the subject.

Finally, Iowa Workforce Development has enhanced its services to customers by deploying a new technology-driven delivery system. Virtual Access Points (VAPs) were rolled out across the state in 2011 as a way to assist thousands of unemployed and underemployed Iowans who are in need of employment-related services. The VAPs are located in every county and in a variety of locations. The National Association for Best Practices commended Iowa's efforts as a national model saying, "the new system will offer greater availability to the public through evening and weekend hours." The new technology complements the 15 regional one-stops and four satellite offices that continue to offer comprehensive workforce services. As of June 7, 2012, there were 707 host sites with 3,156 desktops located across the state.

Sincerely,

A handwritten signature in black ink that reads "Teresa Wahlert". The signature is written in a cursive, flowing style.

Teresa Wahlert, Director  
Iowa Workforce Development

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# Executive Summary

- Iowa's economic recovery stood on firmer ground as 2011 drew to a close. State revenues increased by \$265.2 million or 4.7 percent for fiscal year 2011, and gross receipts for 2012 had surpassed an earlier estimate of 2.0 percent for the year. Farmland values in Iowa reached a historical peak in 2011, increasing by 32 percent to an average of \$6,708 an acre. Personal income, which represents an important measure of the state's economic well-being, increased to \$123.9 billion in 2011 from \$116.0 billion in 2010, an annual gain of 6.8 percent. The Governor has established a goal of increasing family incomes by 25 percent during his administration.
- Iowa added nonfarm jobs in 2011 for the first time since 2008. Over half of the private sectors experienced a gain from 2010. The manufacturing sector led the recovery, adding 6,900 jobs in 2011 for an annual increase of 3.4 percent. Iowa recorded 35,900 gross monthly job gains in 2011, an achievement that will count toward the Governor's goal of creating 200,000 jobs over the next five years.
- Iowa's 2011 unemployment rate of 5.9 percent was the sixth-lowest rate in the nation and down from 6.3 percent in 2010. The number of unemployed persons dropped to 98,000 statewide in 2011 from 104,800 in 2010. All nine metropolitan statistical areas (MSAs) and 93 Iowa counties posted lower unemployment rates in 2011. The state's labor force participation rate (the percentage of Iowa's adult population that is either working or looking for a job) was 70.1 percent in 2011.
- Agriculture is important to the Iowa economy and continues to fuel activity in numerous nonfarm businesses across the state. Iowa ranks 1st in the nation in corn, soybean, pork and egg production and 2nd in the nation in red meat production, cash receipts, net farm income and overall agriculture export value. Iowa is also a leader in alternative energy production. The state accounts for nearly 30 percent of U.S. ethanol production and 15 percent of the nation's biodiesel production. Strong demand for the state's agricultural commodities at home and in key foreign markets is critical for sustaining the economic prosperity of rural Iowans.

# Executive Summary

- A strong STEM talent pool increases a state's ability to innovate and compete in the global marketplace. STEM refers to the academic fields of science, technology, engineering and mathematics. On July 26, 2011, Governor Branstad signed Executive Order 74, creating a STEM Advisory Council to increase the focus on career opportunities in these occupational fields. People working in STEM occupations earn an average of \$14,000 more per year at every education level up through a master's degree, where the differential is even greater.
- Advanced manufacturing is a key catalyst for broader economic growth in the state. Companies in this sector integrate innovative technologies in their production processes and/or within the product itself. Based on 2011 employment numbers, Iowa demonstrates a regional specialization in 13 of the 18 advanced manufacturing subsectors. The 2011 annual average wage for the state's advanced manufacturing sector was \$48,463, which was \$9,918 higher than the average of \$38,545 for private industry overall.
- The percentage of Iowa's nonfarm employment dedicated to healthcare has increased from 9.8 percent in 1990 to 12.1 percent in 2011. Employment in the industry is expected to grow at more than twice the rate of all other jobs, increasing by 2.0-2.5 percent per year. While the current median age for Iowans is 38 years of age, the median age for those working in the state's healthcare industry is 51 years of age, and one-third of the healthcare workforce is 55 years of age or older. Sixty-five percent of all healthcare vacancies in the state require some education beyond high school.
- The Iowa Gender Wage Equity Study reflects results gathered by Iowa Workforce Development using 2011 statewide Laborshed Survey data. The results of the survey showed that across all industries, occupations, education and experience levels, employed females who earned an hourly wage were paid 25.0 percent less (or 75 cents for every dollar) than employed males who earned hourly wages. In addition, employed females who earned a salary earned 19.4 percent less than their male counterparts.

# 2011 — A Year of Recovery and Transition

## Recovery Picks Up Pace at End of 2011

As 2011 drew to a close, Iowa's economy was positioned for faster growth. Reports on consumer confidence, job creation, manufacturing, and unemployment showed cautious signs of improvement. Even the depressed housing market was beginning to show some signs of life, leading many experts to predict that a turnaround had begun. The economic recovery began in mid-2009, and since that time real gross domestic product (GDP) has been positive, although the pace has been uneven and relatively weak. The momentum finally began to build during the final months of 2011, and a double-dip recession was averted. The strength in economic activity appears to have carried over into 2012, and there is renewed hope that the nation and Iowa will achieve a sustainable recovery this year.

Several unforeseen shocks external to Iowa's economy accounted for last year's mid-year slump. The March earthquake and tsunami in Japan disrupted supply chains, the unrest in the Middle East and North Africa led to a run-up in oil prices, and the European sovereign



debt crisis and discord in Washington over controlling government debt weighed heavily on business and consumer confidence. However, despite these obstacles, Iowa's economy proved to be resilient, driven primarily by its strong agricultural sector and renewed vitality in manufacturing.

The following facts illustrate how the recovery is moving forward:

- Iowa's state revenues increased by \$265.2 million or 4.7 percent for fiscal year 2011. All three major sources of revenue—personal income tax, sales/

use tax and corporate income tax contributed to the increase. Meanwhile, gross receipts for fiscal year 2012 are running ahead of the Revenue Estimating Conference's estimate of 2.0 percent for the year. Based on improvements in Iowa's economic recovery, the revenue projection for fiscal year 2012 was revised upward in March by \$51 million. This is an expectation that overall tax collections will total \$6.051 billion on June 30, 2012, an annual increase of \$152 million, or 2.6 percent.

- The statewide job market improved in fourth quarter 2011, as the state's unemployment rate began a rapid descent. Iowa's 2011 annual average unemployment rate of 5.9 percent was the sixth-lowest in the state rankings, and compared with a rate of 8.9 percent for the nation.
- Unemployment insurance (UI) benefits for the state were down approximately 30 percent from 2010, and average weekly initial claims decreased for the second consecutive year. UI benefits paid to laid-off manufacturing workers decreased by 50 percent from 2009 to 2010 and an additional 28 percent from 2010 to 2011.
- Farmland values in Iowa reached a historical peak in 2011 increasing by 32 percent to an average of \$6,708 an acre. Net farm income increased substantially in 2011, and was the primary reason for the surge in farmland values. Other reasons included the ability to buy farm real estate at low interest rates, and the desire to invest in farmland given the volatility in the stock market.
- 2011 was a relatively stable year for housing in Iowa with some slight increases. Total year-to-date home sales were 31,089 in 2011, up from 30,954 in 2010 (0.4 percent). The average sales price in 2011 was \$140,458 compared to \$139,791 in 2010 (0.5 percent). Housing permits for the state were up 2.9 percent in 2011, increasing to 7,526 in 2011 from 7,312 in 2010.
- Employer sentiment has been steadily improving in Iowa according to the first quarter 2012 Economic Outlook Survey conducted by the Iowa Business Council (IBC). The results from the survey were based on members' outlook regarding three factors—sales,

## 2011 — A Year of Recovery and Transition

# 2011 — A Year of Recovery and Transition

employment, and capital spending. The overall index for first quarter 2012 was 66.3, compared with 62 for fourth quarter 2011 and 66.7 for first quarter 2011. The Economic Outlook Survey Index (OSI) had dropped below 50 during the 2008-2009 recession. An OSI of 50 indicates that the business sentiment of survey participants is average; above 50 is an indication of positive sentiment; below 50 reflects negative sentiment. The council is comprised of 20 of Iowa's largest employers, the presidents of the three state universities and the Iowa Bankers Association.

- Iowa's exports totaled \$13.3 billion in 2011, which was 22.1 percent higher than the 2010 total of \$10.9 billion. A study released by the U.S. Chamber of Commerce ranked Iowa No. 8 in the nation in overall export performance, and No. 10 in terms of its growth in exports. Sales of processed foods and agricultural commodities lead the state's export sales, followed by machinery. Nearly half the state's exports go to Canada and Mexico.
- Taxable sales totaled \$33.54 billion for 2011, up 3.0 percent from 2010 according to preliminary figures released by the Iowa Department of Revenue. Among the 12 business groups for which taxable sales information is tracked, miscellaneous reflected the strongest growth at 8.5 percent. This group includes contractors, various manufacturers,



# 2011 — A Year of Recovery and Transition

**Figure 1. State Personal Income 2011**

Geography	Per Capita Personal Income			Personal Income (Millions of Dollars)	
	2011*	U.S. Rank	Percent Change 2010-2011	2011*	Percent Change 2010-2011
<b>United States</b>	\$41,663		4.3	\$12,981,741	5.1
<b>Plains States:</b>					
Iowa	40,470	24	6.4	123,933	6.8
Kansas	40,481	23	3.9	116,230	4.3
Minnesota	44,672	11	4.4	238,768	5.1
Missouri	38,248	29	3.9	229,898	4.2
Nebraska	41,584	22	5.2	76,624	5.9
North Dakota	45,747	9	6.7	31,288	8.1

Source: Bureau of Economic Analysis, U.S. Department of Commerce, *\*preliminary data*

agricultural production and services, mining, publishers and printers, and all unclassified. Apparel sales were up 5.3 percent, and specialty retail sales were up 5.1 percent.

- Personal income in Iowa increased to \$123.9 billion in 2011 from \$116.0 billion in 2010, registering an annual gain of 6.8 percent. The income growth was largely driven by farm income, and was second only to North Dakota's 8.1 percent gain. Personal income for the U.S. increased by 5.1 percent in 2011. Personal income is the money households receive before taking out taxes (disposable income is after taxes). In addition to wages and salaries, personal income also includes non-earned income such as dividends, interest, rent and transfer payments.
- Iowa's per capita personal income, which is defined as personal income divided by population, rose 6.4 percent in 2011 to a level of \$40,470 from \$38,039 in 2010. The state's per capita personal income figure represented 97.1 percent of the national equivalent of \$41,663.

## 2012 Economic Outlook

The Iowa economy is expected to grow at a slightly faster rate than it did in 2011, as hiring spreads across more industry sectors. Most key indicators are expected to improve in 2012 as compared to 2011,

# 2011 — A Year of Recovery and Transition

including jobs, unemployment, incomes, sales, and housing. The state's unemployment rate will continue to drop in 2012. Finally, the slow turnaround in housing will be a small plus for the economy in 2012. While homebuilding will show only modest improvement, there is several large commercial and industrial construction projects scheduled for 2012. The biggest challenge for the labor market will continue to be the disconnect between the skills that exist in the labor force and the skills in demand by companies that plan to hire.

## IWD Introduces New Delivery System

Figure 2. Virtual Access Points Offer Convenience



Source: Workforce Services Center Administration Division, Iowa Workforce Development

Iowa Workforce Development transitioned to a new, technology-driven delivery system in 2011 as an innovative and more efficient way to assist the thousands of unemployed and underemployed Iowans who are in need of employment-related services. The IowaWORKS Virtual Access Points allow Iowans the opportunity to utilize workforce services in a convenient location close to home, and at a time that fits their personal schedules. This new technology complements the

15 regional one-stops and four satellite offices that continue to offer comprehensive workforce services.

The new system is also very easy to use for students and the thousands of other job seekers who have become accustomed to using technology in their everyday lives. The National Governors Association for Best Practices commended Iowa's efforts as a national model saying, "the new system will offer greater availability to the public through evening and weekend hours—a benefit that is currently not available."

How does the system work? Workforce professionals are available to customers via a toll-free telephone number or "live chat" function from an access point. The service is available from 8 a.m. through 8 p.m., Monday through Thursday, 8 a.m. through 7 p.m. on Friday, and from 9 a.m. to 2 p.m. on Saturdays. Through the availability of access points, workforce services are currently available in every county. In the past, Iowans had to travel to an office to receive services.

Where are the virtual access points located? As of June 7, 2012, there were 707 host sites with 3,156 desktops at the locations. The host sites fall into 20 different categories of locations. Included among these

## 2011 — A Year of Recovery and Transition



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are armories, city and county facilities, colleges, community-based organizations, faith-based organizations, homeless shelters, libraries, and vocational-rehabilitation offices. The number of access points continues to grow on a daily basis.

What types of services can customers access? Customers can enter the system through one of six modules, and can access a wide variety of services. Job seekers can look for a suitable job opening, unemployed individuals can file a claim for Unemployment Insurance (UI), employers can post their job openings, and veterans can obtain information on veterans' benefits and educational and employment opportunities. The Explore My Skills module provides useful links to career assessment tools, GED and ACT practices, and other types of self-help.

To view a map with current virtual access point locations, go to [www.iowaworkforce.org/accesspoints/](http://www.iowaworkforce.org/accesspoints/).

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# Iowa's Nonfarm Employment Trends

## Gross Job Gains

When Governor Branstad took office in January of 2011 he set a goal of creating 200,000 jobs over the next 5 years. In 2011 Iowa recorded 35,900 gross monthly job gains toward achieving this goal.

## Overview

This past year marked a recovery for the Iowa economy. Jobs were added year-over-year for the first time since 2008—a year in which the economy had already lost momentum and a mere 5,300 jobs were gained. The following year, 45,400 jobs were shed—more in one year than in 2001, 2002, and 2003 combined. These losses carried over into 2010, when an additional 9,500 jobs were lost. Viewed annually, 54,900 jobs were shed during the previous two years.

This recent recession was historic for a few reasons: duration and magnitude.

The National Bureau of Economic Research (NBER) officially listed the recession as beginning in December of 2007 and ending in June of 2009. The 18-month duration



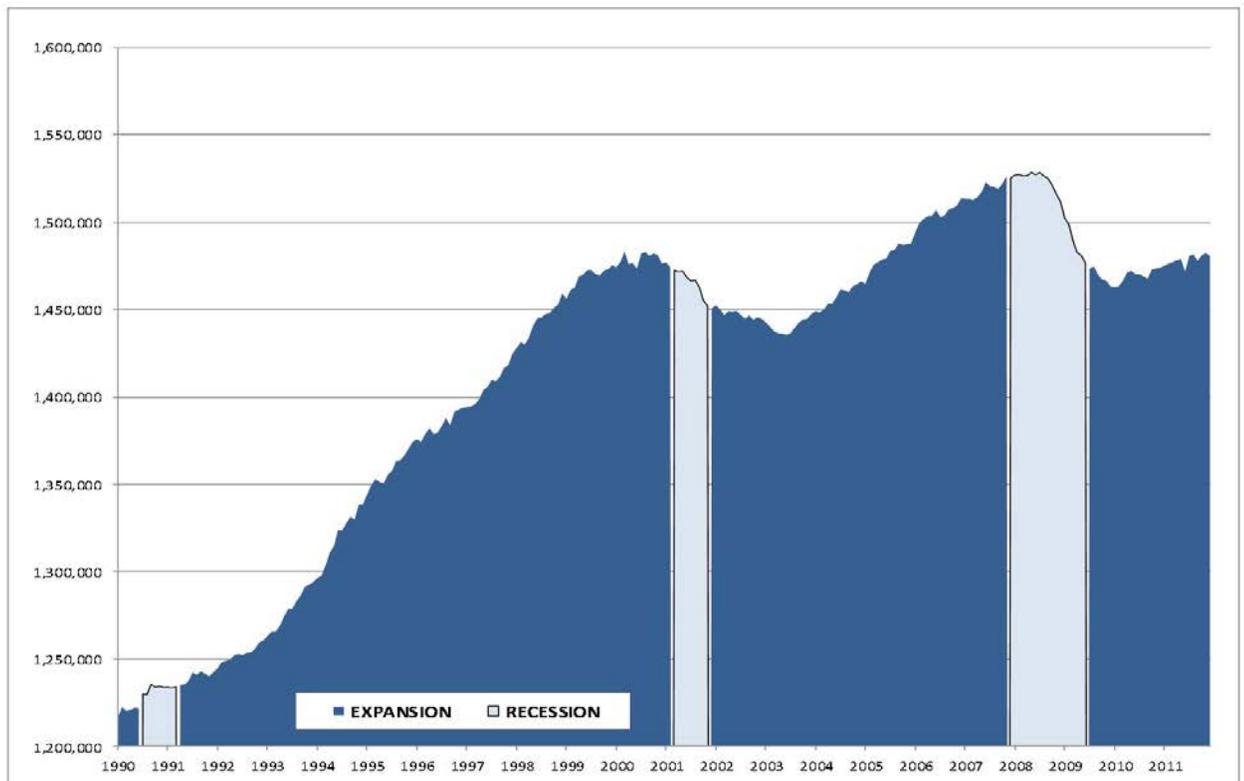
# Iowa's Nonfarm Employment Trends

was far longer than the 2001 recession, and two months longer than either the recession of 1973 or 1981. In fact, the recent recession was the longest since the Great Depression, when the economy contracted for a staggering 43 months.

The amount of jobs lost in one year was severe. Figure 1 illustrates the magnitude of the job loss both during and after the official recession ended. In the case of the 2001 recession, jobs were pared for two years after of official recession ended. Those continuous losses equated to three years of over-the-year declines, but they paled in comparison to the drop in 2009.

This sudden shedding of jobs in the economy made the effects more difficult to manage. Although Iowa's financial sector was not quite

**Figure 1. Iowa Total Nonfarm Employment 1990-2011  
(Seasonally Adjusted)**

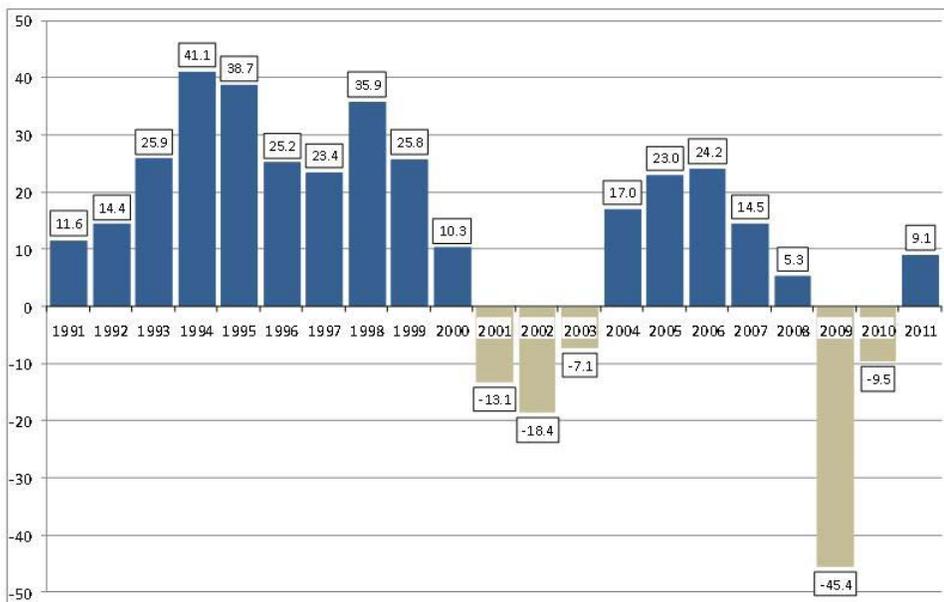


Source: Current Employment Statistics (CES), Labor Market and Workforce Information Division, Iowa Workforce Development

# Iowa's Nonfarm Employment Trends

as affected as the rest of the nation, credit and lending was. This also meant the effects lingered after the recession ended in the form of high unemployment and a tightening in lending practices, which also hampered new construction projects and big-ticket item purchases. Figure 2 illustrates the severity of the state's job losses in 2009.

**Figure 2. Iowa Total Nonfarm Employment Year-Over-Year Change 1990-2011 (Seasonally Adjusted)**



Source: Current Employment Statistics (CES), Labor Market and Workforce Information Division, Iowa Workforce Development

## 2011 by Industry

This past year was prosperous for most sectors of the Iowa economy. Over half of the private super sectors experienced a gain year-over-year. The public sectors expectedly shed jobs in all three segments (federal, state, and local government). Information and finance still trailed their 2010 levels by 800 jobs each, and other services experienced a small drop of 400 jobs. Iowa's mining industry remained unchanged compared to one year ago.

Iowa's manufacturing sector again proved to be an elastic indicator of the health of the economy, adding and shedding jobs at a greater pace than other industries. Iowa's factories have added 6,900 jobs since 2010, a gain of 3.4 percent. This is an encouraging

# Iowa's Nonfarm Employment Trends

sign of recovery. These increases have been concentrated in durable goods-producing factories, although nondurable goods also gained 700 jobs. Construction was particularly hard-hit during the most recent recession, so the sector's addition of 900 jobs is a positive sign that new projects are underway.

Private services also fared well in 2011, led by trade and transportation which added 2,400 jobs (+0.8 percent). This sector was fueled by a gain of 1,300 in transportation. Gains were also seen in retail trade (+700 jobs) and wholesale trade (+400 jobs). The healthcare industry was responsible for all of the gains in the education and health services sector (+1,800 jobs) as private education services hiring was sluggish throughout 2011. The professional and business services sector also added 1,800 jobs, although hiring in professional and

**Figure 3. Iowa Nonfarm Employment by Sector (Seasonally Adjusted)**

INDUSTRY TITLE	2005	2006	2007	2008	2009	2010	2011	Change 2010-2011	
								Number	Percent
Mining and Logging	2.1	2.2	2.1	2.2	2.2	2.2	2.2	0.0	0.0%
Construction	71.3	74.5	72.7	72.9	64.9	61.6	62.5	0.9	1.5%
Manufacturing	229.1	231.2	229.6	227.3	202.8	200.5	207.4	6.9	3.4%
Durable Goods	140.9	142.9	141.4	138.4	117.0	116.4	122.6	6.2	5.3%
Non-Durable Goods	88.2	88.2	88.2	89.0	85.7	84.1	84.8	0.7	0.8%
Trade, Transportation, and Utilities	306.4	308.7	309.0	309.5	302.5	299.5	301.9	2.4	0.8%
Wholesale Trade	67.3	67.6	67.9	68.7	66.8	66.1	66.5	0.4	0.6%
Retail Trade	180.0	179.9	178.9	178.3	175.2	172.8	173.5	0.7	0.4%
Transportation, Warehousing, and Utilities	59.0	61.2	62.2	62.5	60.5	60.6	61.9	1.3	2.1%
Information	33.0	33.0	33.6	32.9	30.3	28.7	27.9	-0.8	-2.8%
Financial Activities	98.2	100.6	102.6	102.7	102	101.2	100.4	-0.8	-0.8%
Finance and Insurance	83.6	86.1	88.8	89.4	88.9	88.3	87.4	-0.9	-1.0%
Professional and Business Services	113.2	117.3	121.4	123.1	117.4	121.7	123.5	1.8	1.5%
Professional, Scientific, and Technical Svcs	38.4	40.2	41.7	43.0	42.1	42.3	42.2	-0.1	-0.2%
Administrative and Support Svcs	63.0	64.2	65.7	66.5	62.6	66.0	66.3	0.3	0.5%
Education and Health Services	195.1	199.1	203.3	207.5	211.9	214.1	215.9	1.8	0.8%
Educational Services	33.1	34.1	35.4	36.5	37.3	37.6	37.6	0.0	0.0%
Health Care and Social Assistance	162.0	165.0	167.8	171.0	174.6	176.4	178.3	1.9	1.1%
Leisure and Hospitality	130.5	134.2	137.1	135.4	132.6	129.9	130.6	0.7	0.5%
Accommodation and Food Services	110.9	113.6	116.3	114.7	112.4	110.2	110.4	0.2	0.2%
Other Services	56.3	56.8	57.6	57.9	57.5	56.9	56.5	-0.4	-0.7%
Government	245.2	247.1	250.0	252.9	254.7	253.1	249.8	-3.3	-1.3%
Federal Government	18.1	18.1	18.2	18.4	18.5	19.1	18.0	-1.1	-5.8%
State Government	63.8	64.2	65.4	66.8	66.8	64.8	64.2	-0.6	-0.9%
Local Government	163.4	164.7	166.3	167.8	169.4	169.2	167.6	-1.6	-0.9%
<b>Total Nonfarm</b>	<b>1480.3</b>	<b>1504.5</b>	<b>1519.0</b>	<b>1524.3</b>	<b>1478.9</b>	<b>1469.4</b>	<b>1478.5</b>	<b>9.1</b>	<b>0.6%</b>

Source: Current Employment Statistics (CES), Labor Market and Workforce Information Division, Iowa Workforce Development

business services has been weak year-over-year. Finally, leisure and hospitality added 700 jobs, a gain of 0.5 percent.

In 2011, the U.S. total nonfarm employment increased by 1.16 percent. This increase outpaced Iowa (+0.62 percent) and the Midwest region (+1.13 percent). Among the surrounding states, Iowa's annual employment growth was below that of Minnesota, Illinois, and South Dakota, yet remained ahead of the annual percentage gains in Nebraska, Wisconsin, and Missouri.

**Figure 4. Total Nonfarm Employment Annual Change for Iowa and Surrounding States (year-over-year)**

Area	Change, 2010-2011	
	Number	Percent
United States	1,500,000	1.16
Midwest Region	291,800	1.13
Iowa	9,100	0.62
<b>Border States</b>		
Illinois	52,200	0.93
Minnesota	33,600	1.27
Missouri	300	0.01
Nebraska	4,300	0.46
South Dakota	3,000	0.74
Wisconsin	10,900	0.40

Source: Current Employment Statistics (CES), Labor Market and Workforce Information Division, Iowa Workforce Development

# Iowa's Nonfarm Employment Trends

## Outlook

After reaching a trough in January 2010 nonfarm employment in Iowa has steadily trended upward. In December of 2011, employment had climbed upward by 17,700 jobs from the January 2010 low. Of these gains almost 75 percent were in manufacturing, once again proving Iowa factories are a driving force in the Iowa labor market. These same industries were responsible for approximately half of all the jobs lost during the recession.

Iowa manufacturing is fueled heavily by durable goods manufacturing — specifically machinery and heavy equipment production.

Preliminary reports for 2012 in the U.S. indicate a healthy increase in new orders for durable goods (+13.5 percent) compared to last year. These numbers are slightly lower for machinery manufacturing (+12.1 percent), but are still markedly up from one year ago. Transportation equipment has fared even better, averaging 23.4 percent more in new orders, which is good news for Iowa's transportation equipment

# Iowa's Nonfarm Employment Trends

manufacturers. Increased demand for durable goods should help fuel growth in finance through the purchasing of larger equipment, and in professional and business services in the form of temporary employment hiring.

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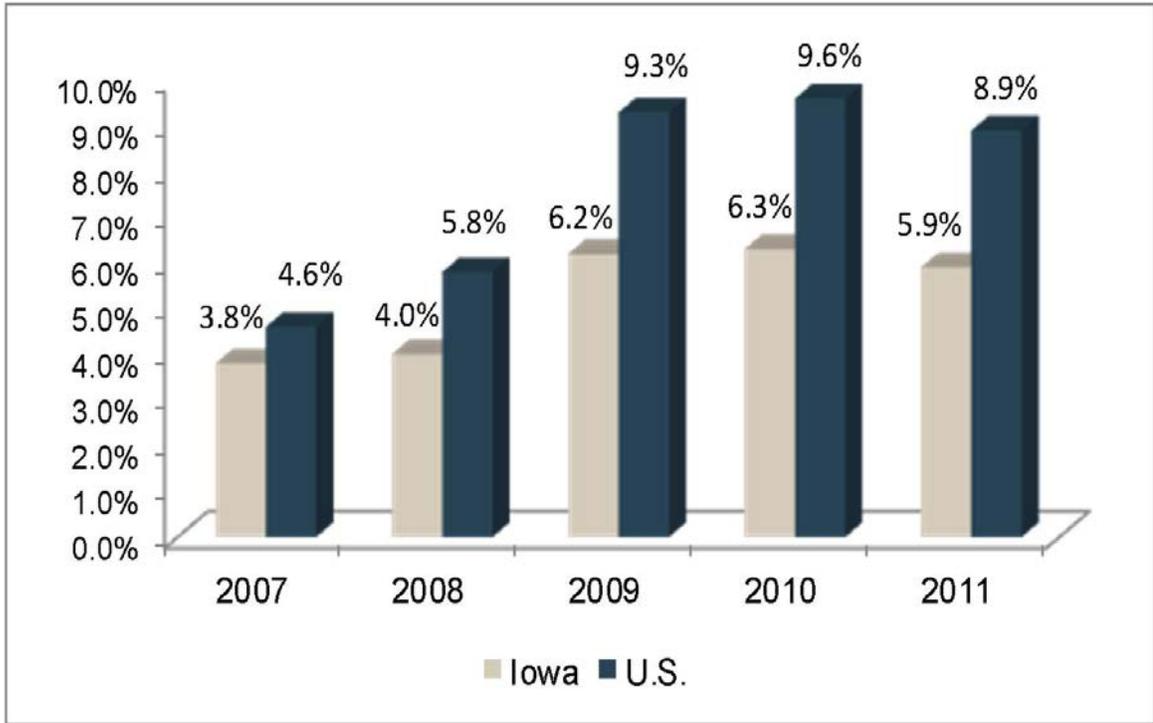
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# State and Local Labor Force Trends

## State's Unemployment Conditions Improve in 2011

In 2011, annual average unemployment rates declined for the U.S. and 48 states in response to improved economic conditions across the nation. The U.S. jobless rate in 2011 was 8.9 percent, down from 9.6 percent in 2010. Iowa's 2011 rate at 5.9 percent was down from the prior year's 6.3 percent, and was the six-lowest rate among the states. In terms of numbers, the level of unemployment in Iowa dropped from 104,800 in 2010 to 98,000 in 2011. Both the U.S. and Iowa jobless rates dropped sharply during the fourth quarter of the year. The state rankings showed Nevada with the highest unemployment rate at 13.5 percent, while North Dakota had the lowest jobless rate in the U.S. for the third consecutive year at 3.5 percent.

Figure 1. Iowa and U.S. Unemployment Rates, 2007-2011



Source: Labor Market and Workforce Information Division, Iowa Workforce Development in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

# State and Local Labor Force Trends

## Metropolitan Statistical Areas (MSAs), Counties Report Lower Unemployment

Iowa's local labor markets also experienced lower unemployment in 2011. All nine metropolitan statistical areas (MSAs) reported a drop in their 2011 unemployment rates. The most substantial declines occurred in three of these larger labor areas—Sioux City MSA (-13.4%), Dubuque MSA (-11.3%), and the Davenport-Moline-Rock Island MSA (-10.6%). Ninety-three of Iowa's counties reported lower unemployment rates last year. County rates for 2011 ranged from a low of 3.0 percent in Lyon County to a high of 9.9 percent in Hamilton County. The Electrolux plant in Webster City closed in March 2011, which accounted for the large increase in Hamilton County's unemployment rate for 2011.

**Figure 2. Metropolitan Statistical Area (MSA) Labor Force Summary 2011 Annual Averages**

Metropolitan Statistical Area	Labor Force	Employed	Unemployed	Unemployment Rate	
				2010	2011
Ames	48,600	46,400	2,200	4.8	4.5
Cedar Rapids	146,400	137,700	8,800	6.2	6.0
Davenport-Moline-Rock Island*	201,700	186,300	15,400	8.5	7.7
Des Moines-West Des Moines	313,200	294,700	18,500	6.2	5.9
Dubuque	53,300	50,300	2,900	6.2	5.5
Iowa City	92,000	88,000	4,000	4.5	4.4
Omaha-Council Bluffs*	458,100	435,200	22,900	5.2	5.0
Sioux City*	77,500	72,900	4,500	6.7	5.8
Waterloo-Cedar Falls	95,700	90,300	5,400	6.0	5.6

Source: Labor Market and Workforce Information Division, Iowa Workforce Development.

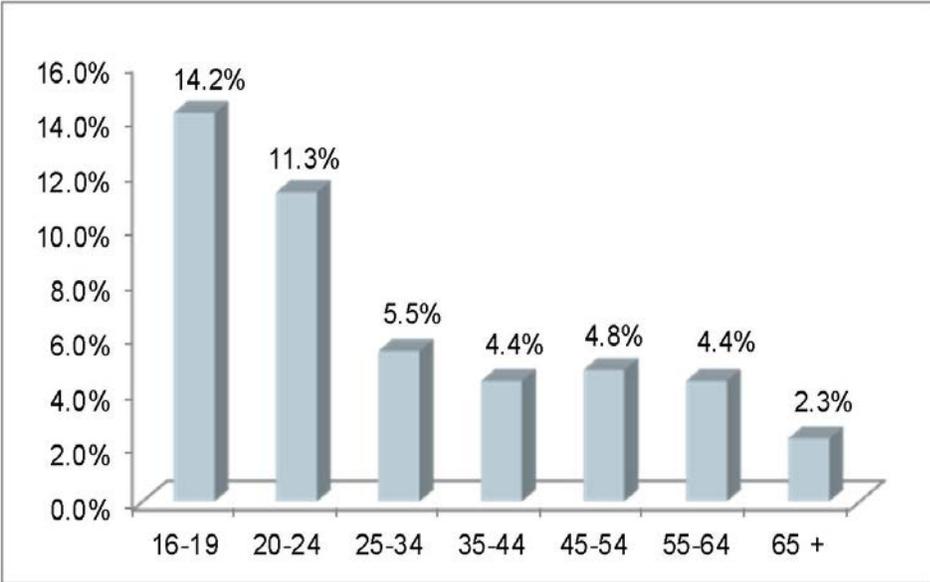
\*Metropolitan Statistical Area includes counties in a bordering state.



# State and Local Labor Force Trends

Although men and women make up almost equal portions of the state’s labor force, the unemployment rate for men in 2011 was 6.1 percent compared to 5.4 percent for women. Jobless rates have fallen for both men and women, but men are still recovering from the heavy jobs losses that occurred in construction and manufacturing during the recession. The highest unemployment rates in the state in 2011 were reported for Blacks (15.7%), Hispanics (11.7%) and youth, 16 to 19 years of age (14.2%).

**Figure 4. Iowa Unemployment Rates by Age 2011 Annual Averages\***



Source: Labor Market and Workforce Information Division, Iowa Workforce Development. \*preliminary data

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# How Agriculture Benefits the Iowa Economy

## Iowa Agricultural Statistics and Trends

Many Iowans can recall a not-so-long-ago 1980's farm crisis which adversely affected Iowa's economy and accelerated state economic diversification efforts. Fast forward to the present and, ironically, Iowa's economy is benefiting primarily because of the value placed on Iowa's agricultural products, particularly the cash crops of corn and soybeans.

How are things on the farm?

Pretty good one might say.

With demand for these cash crops up, commodity prices are up.

With commodity prices up, farm income is up.

With farm income up, land values are up. With land values up, farmers are buying and investing.

As a result, small-town Iowa is faring better again.

**Figure 1. Estimated Total Value of U.S. Agriculture Exports by Leading States, 2010**



U.S. Department of Agriculture. "Economics and Prices Reports." National Agricultural Statistics Service.

The demand for agricultural products is the driving force behind Iowa's economy and is what separates Iowa from many states hit hard by the recent recession.

People need food, fuel and fiber to survive, and Iowa just so happens to be well-positioned to provide much of it. Consider the facts. Iowa ranks 1<sup>st</sup> in the nation in corn, soybean, pork and egg production, and ranks 2<sup>nd</sup> in the nation in red meat production, cash receipts, net farm income and overall agriculture export value.

Iowa ranks among the top 10 in the nation in turkey, dairy, beef, goat and lamb production, and is home to many of the largest national food manufacturers/processors. The state also has over 25 percent of its manufacturing Gross Domestic Product (GDP) derived from food and beverage processing.

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A 2009 All-Iowa (county-by-county) Agriculture Economic Contribution Analysis

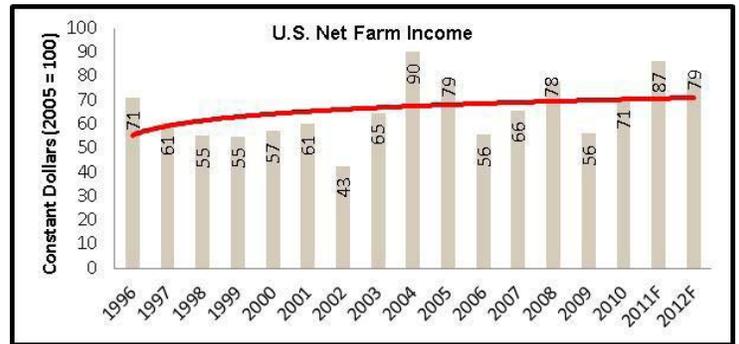
# How Agriculture Benefits the Iowa Economy

sponsored by the Coalition to Support Iowa's Farmers (CSIF), and conducted by Iowa State University (ISU), confirms the importance of agriculture-

related products and services across the state. Dan Otto, ISU Extension economist and co-author of the study, contends that "value-added agriculture processes have supported the increase of statewide agriculture sales and kept jobs in the state." (Value-added refers to the process of transforming agricultural commodities into consumer-driven products.) Further, agriculture was found to be the leading industry in over one-fourth of Iowa's counties and accounted for nearly \$23 billion in value-added products (19 percent of Iowa's total).

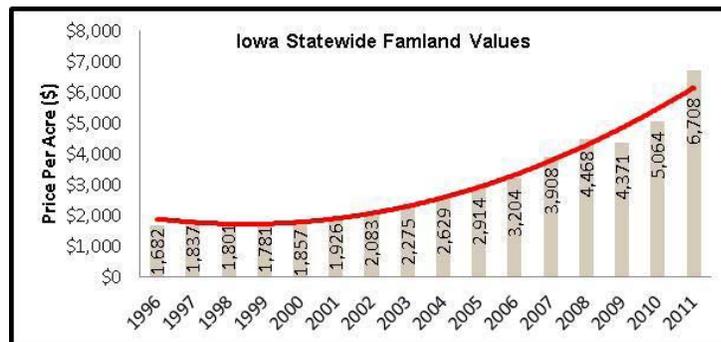
Adding to Iowa's economic fortunes has been the dramatic upward trend in farm income and farmland values which may be affected by return on investment, cash rents, interest rates, geography, and land quality. Strong demand for Iowa's cash crops and livestock (notably beef, pork, and poultry) are pushing prices upward. In his report,

**Figure 2. U.S. Net Farm Income**



U.S. Department of Agriculture. "Economics and Prices Reports." National Agricultural Statistics Service.

**Figure 3. Iowa Statewide Farmland Values**



U.S. Department of Agriculture. "Economics and Prices Reports." National Agricultural Statistics Service.

Technology and Innovation in World Agriculture: Prospects for 2010-2019, ISU economics researcher Wally Huffman envisions these

trends continuing. The next ten years, he predicts, will see both food and fuel concerns drive up worldwide supply and demand as well as real prices for oilseeds and grain. Technology will increase yields and satisfy this demand. Farms will be more energy-based with more corn going into ethanol than animal feed.

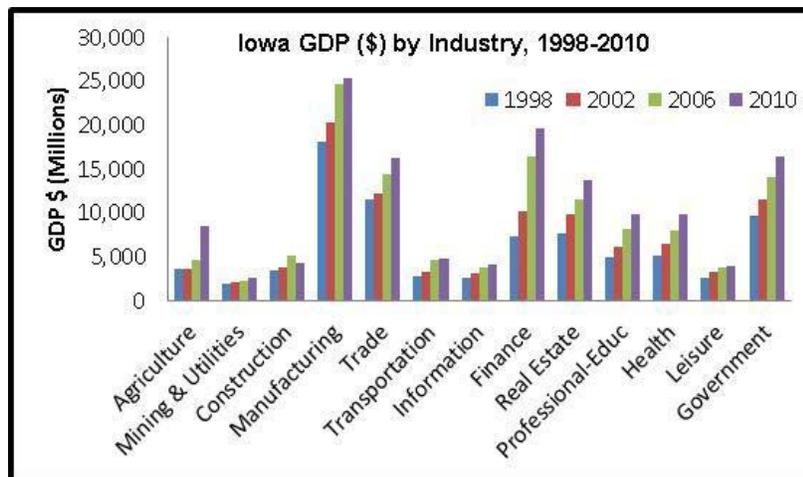
Another interesting insight comes from a recent 2012 U.S. Department of Agriculture (USDA) report that found farm earnings during the past two years have been sufficient in servicing farm real estate purchases. Such earning power would seemingly prolong any feared speculative bubble. However, any unforeseen farm policy changes or (un)natural phenomena affecting the current supply/demand equilibrium could cause dramatic increases to today's historic low interest rates, creating a downward pressure on farmland values. Higher production input costs are also adversely affecting farm income. American Farm Bureau Federation's Chief Economist, John Erickson, adds that "the effects of higher oil prices are reducing profits to the agricultural sector. From seed to fertilizer, each commodity is projected to experience higher yearly production costs..."

# How Agriculture Benefits the Iowa Economy

## Impact of Agriculture on Manufacturing and Alternative Energy

Manufacturing has played a central role in Iowa's economy. In fact, Iowa is among the top ten states where manufacturing accounts for a significant portion of GDP. About 18 percent of Iowa's GDP can be attributed to manufacturing. (Agriculture represents around six percent). Even though manufacturing employment has declined in recent years, the sector remains

**Figure 4. Iowa GDP (\$) by Industry, 1998-2010**

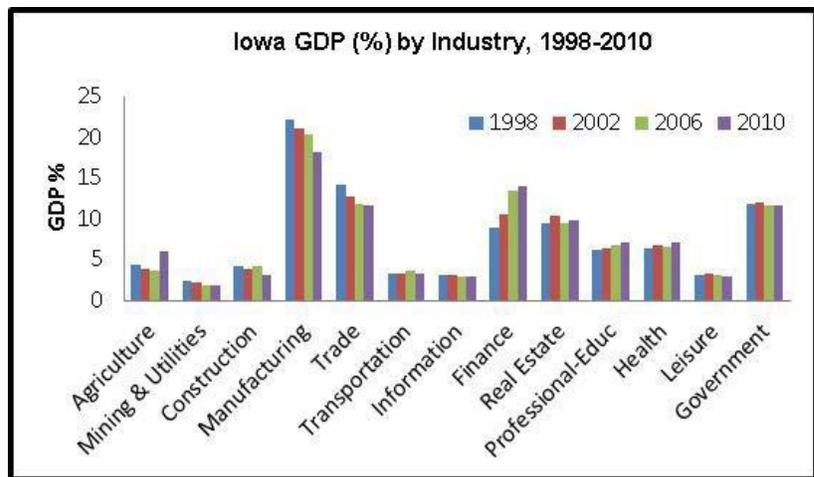


Source: U.S. Department of Commerce. "Regional Economic Accounts." Bureau of Economic Analysis.

# How Agriculture Benefits the Iowa Economy

critically important to state economic development efforts. The manufacturing industries that have the closest ties to the state's agricultural sector are food processing (i.e., grain milling, meat packing), farm machinery and related (i.e. tractors, parts), and the relatively recent energy sector (i.e., ethanol, biodiesel). Machined and fabricated goods, recreational vehicles, electronics, wood products, chemicals and plastics also figure significantly into Iowa's manufacturing pie.

**Figure 5. Iowa GDP (%) by Industry, 1998-2010**



Source: U.S. Department of Commerce. "Regional Economic Accounts." Bureau of Economic Analysis.

In terms of employment numbers, agri-related manufacturing industry sectors have been a bright spot for Iowa's total manufacturing industry. Overall manufacturing employment figures have retreated the past several years due to recessionary pressures, but started to rebound recently with a net gain in 2011. Similarly, the tire manufacturing industry with its strong ties to farm machinery began adding jobs in 2011 after years of moderate decline. Farm machinery employment has truly benefited from agriculture's strong economic position with wet corn milling and soybean processing steadily growing (save for the lost blenders tax credits in 2011). As a result, farmers have increased their spending on farm machinery and supplies.

Recent reports of record profits for John Deere and Monsanto are examples of how increased farm income is bringing prosperity to

the state's various nonfarm industries. John Deere, a manufacturer of farm machinery, started 2012 on a strong note by reporting record earnings of \$533 million for the first quarter ended January 31, 2012. Company equipment sales are also projected to be up 15 percent for fiscal year 2012. Monsanto, a maker and seller of corn and soybean seeds, reported record second fiscal quarter earnings of \$1.2 billion. Meanwhile, Mitas Tires North America Inc. has started to make radial agricultural tires in Charles City; Pioneer Hi-Bred has opened a new \$40-million plant genetics research facility in Johnston and construction has started on the Valent BioSciences plant in Osage. The plant will be the first, full-scale manufacturing operation designed specifically for the production of biorational products.

Agriculture along with the state's geographic location has also made Iowa a leader in alternative energy production. The state accounts for nearly 30 percent of U.S. ethanol and 15 percent of the nation's U.S. biodiesel production. In 2011, renewable fuels production accounted for \$6 billion (4 percent) of Iowa's GDP, \$3.7 billion in household income, and support for 82,000 jobs throughout the statewide economy. Iowa's location not only benefits agricultural commodity production, but is favorable for wind energy as well. Nationally, Iowa ranks 1<sup>st</sup> in the percentage of total electricity generated from wind, 2<sup>nd</sup> in installed capacity, 2<sup>nd</sup> in wind generation output and 1<sup>st</sup> in the number of jobs in the wind manufacturing sector. Currently, Iowa is home to five major wind manufacturers.

### **Challenges Facing Agriculture**

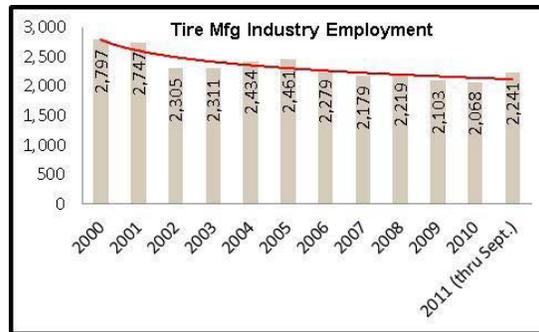
Challenges exist for the state's agricultural economy. A slow-growing economy, slow population growth, the difficulty of retaining younger workers in rural Iowa, farm policy, export markets, and economic diversification are but a few. However, addressing them at this time of relative economic prosperity is uncharacteristic. "If the present era is not the best, it's close to the best that Iowa farmers have ever had," according to Neil Harl, ISU agricultural economist, in a statement made last year. Fellow ISU agricultural economist, Mike Duffy, concurs, adding that strong demand for agricultural commodities at home and in key

# How Agriculture Benefits the Iowa Economy

# How Agriculture Benefits the Iowa Economy

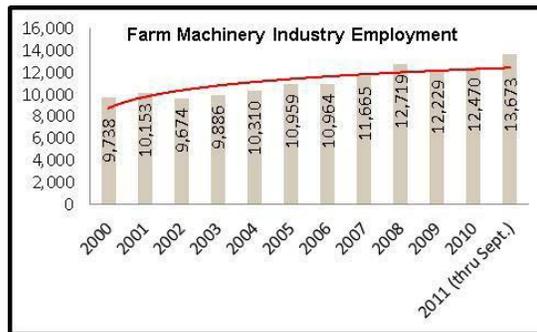
foreign markets like China, India and other developing nations are critical for sustaining the economic prosperity of rural lowans. Vibrant organic farming, winemaking and other niche agricultural markets are further enhancing the contribution of agriculture to Iowa's total GDP. Also, farmers markets are growing across the state as a way to showcase Iowa's diverse agricultural products. These progressive trends appear to have lowans embracing their agricultural heritage, and in today's times, this is a good thing.

**Figure 6. Tire Manufacturing Employment**



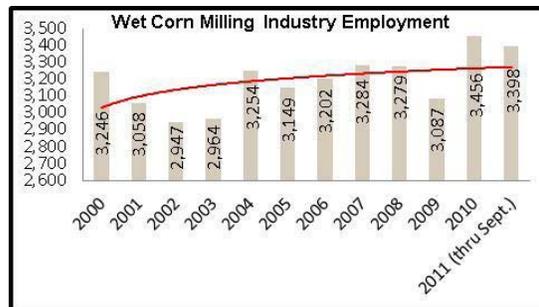
Source: Quarterly Census of Employment and Wages (QCEW). Labor Market and Workforce Information Division, Iowa Workforce Development.

**Figure 7. Farm Machinery Industry Employment**



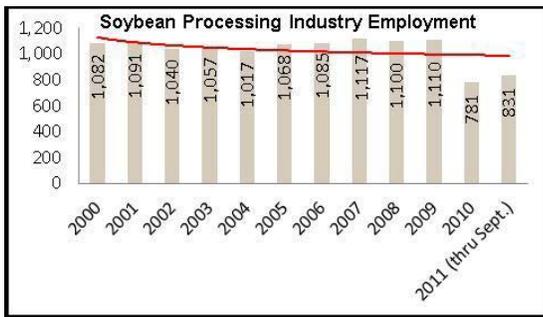
Source: Quarterly Census of Employment and Wages (QCEW). Labor Market and Workforce Information Division, Iowa Workforce Development.

**Figure 8. Wet Corn Milling Industry Employment**



Source: Quarterly Census of Employment and Wages (QCEW). Labor Market and Workforce Information Division, Iowa Workforce Development.

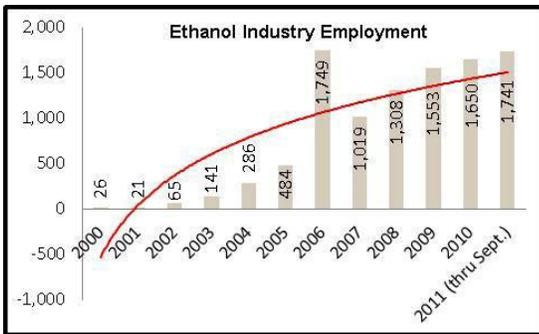
Figure 9. Soybean Processing Employment



Source: Quarterly Census of Employment and Wages (QCEW). Labor Market and Workforce Information Division, Iowa Workforce Development.

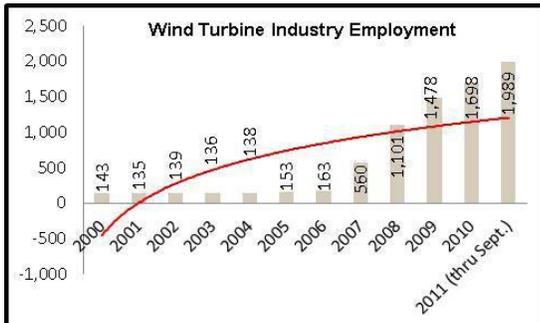
# How Agriculture Benefits the Iowa Economy

Figure 10. Ethanol Employment



Source: Quarterly Census of Employment and Wages (QCEW). Labor Market and Workforce Information Division, Iowa Workforce Development.

Figure 11. Wind Turbine Employment



Source: Quarterly Census of Employment and Wages (QCEW). Labor Market and Workforce Information Division, Iowa Workforce Development.

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# Building a STEM Workforce

## Overview: Our STEM-driven Economy

The academic fields known as science, technology, engineering, and mathematics (STEM) have long been recognized as foundational to invention and innovation — engines of economic growth. More than half of the growth in the nation's Gross Domestic Product (GDP) in recent decades has been attributable to progress in technological innovation. And although jobs in STEM constitute just five percent of the total U.S. workforce, this group disproportionately creates jobs for the other 96 percent (Rising Above the Gathering Storm, Revisited, 2010). A discovery in genetics can drive extensive growth in pharmaceuticals, and a chemical engineer's solar technology discovery can launch a vast energy supply chain. Innovation, defined as the improvement of existing or the creation of entirely new products, processes, services, and business or organizational models, drives long-run economic growth, competitiveness, and quality of life (Atkinson and Mayo, 2010). Consensus has emerged among scientific, business, and education leaders that America's ability



Ankeny High School science teacher Heather Sanders conducts micropipetting experiments at Kemin Industries.

# Building a STEM Workforce

to innovate and compete in the global marketplace is directly tied to the ability of our schools to adequately prepare all of our children in STEM (National Governors Association, 2010).

Here in Iowa our most active economic sectors heavily depend on a robust STEM talent pool. Most of Iowa's high demand occupations for the period 2008-2018 are in the STEM fields of information technology, financial systems, medical science and advanced manufacturing. (Iowa Workforce Development a, 2011). Many of Iowa's larger private sector employers are in the STEM fields, including Rockwell Collins, Iowa Health Systems, John Deere, Principal Financial, MidAmerican Energy, Pioneer Hi-Bred International, and many more. Iowa's STEM employment sector is projected to grow more and pay better than any other job sector through 2018 (Iowa Workforce Development b, 2011). Ninety-one percent of these STEM jobs will require post-secondary education or training (Carnavale, 2011). But just 12 percent of Iowa's 2009 bachelor's degrees were awarded in STEM fields, contrasted to a national average of 15 percent, indicative of our weak STEM education pipeline (Change the Equation, 2011).

As a result, an aggressive new STEM education initiative was formed in Iowa in the fall of 2011—the Governor's STEM Advisory Council, moving swiftly to help address the state's STEM pipeline and workforce challenge.

## **The Importance of STEM**

Iowa depends on a sound STEM education system to bolster the employment prospects within Iowa and to enhance the overall quality of life in the state.

### STEM Employment

Careers in STEM bring a number of advantages that all potential job seekers need to know. People working in STEM occupations earn an average of \$14,000 more per year at every education level up through a master's degree, where the advantage is even greater. STEM wages vary less across racial, ethnic, and gender groups than do wages in other career fields (Carnavale, 2011). And, the STEM employment sector is projected to grow by

18 percent in Iowa by the year 2018 (Iowa Workforce Development b, 2011).

#### 1. STEM Literacy

Iowans' quality of life is closely linked to foundational understandings in the STEM fields. Parenting decisions from prenatal nutrition to early childhood vaccinations to lifelong healthy habits depend on a grasp of basic life science concepts. Consumer options regarding transportation and communication, energy sources and medical choices all require the sort of critical thinking that comes from a strong STEM education. Iowa jurors may need to grasp the basic laws of physics in determining fault in a car accident, or the molecular genetics of DNA in order to appreciate its decisiveness as evidence. And Iowa voters often determine issues rooted in science and engineering such as whether to invest public funds in STEM-related innovations, which have been calculated to return between 20 and 67 percent on investment (Atkinson and Mayo, 2010). A strong STEM education system benefits Iowa for both economic and societal reasons.

### **Iowa's STEM Talent Pipeline**

The good news about the Iowa STEM talent pipeline is that there are many efforts taking place to "pump" in talent. The bad news is that the pipeline is a weak trickle with lots of leaks.

#### 1. STEM Talent Pipeline Pumps

From cradle to career, many Iowans are fortunate to enjoy strong STEM education programming through partnerships of the public and private sectors, a seasoned and highly qualified teacher workforce supported by strengthening standards, STEM clubs and outreach opportunities, and outstanding post-secondary options.

- STEM programming in Iowa spans early childhood to seasoned citizen;
- And in between, a wealth of enrichment and competition programs include Hyperstream, IT Olympics, Future Cities, FIRST Robotics, Invention Convention, Science and Technology Fair, KidWind, V-REP, Real World Design Challenge, JASON Project,

# Building a STEM Workforce

# Building a STEM Workforce

E-SET, DigiGirlz, MathCounts, Project Lead The Way, PEERS, Electrathon, and many more. (Refer to Appendix 1 for more information on each program);

- While in school, lowans are taught by a Highly Qualified Teacher 100 percent of the time in mathematics and 99.05 percent of the time in science (defined by parameters of the No Child Left Behind Act) (State Report Card, 2011). And those teachers are guided by a national Common Core curriculum in math and the Iowa Core in science, supported by math and science consultants from nine area education agencies.
- Iowa's museums, zoos and science centers deliver high quality STEM programming, as do County Extensions and clubs including 4-H and Girl Scouts.
- Upon graduating, Iowa learners may choose among 47 world-renowned higher education institutions—32 public and private colleges and universities and 15 community colleges.

## 2. STEM Talent Pipeline Leaks

Despite Iowa's wealth of assets pumping STEM talent into the pipeline, the education system that produces Iowa's future STEM



Future mathematics teachers grapple with geometric dimensions of a hula-hoop in the Iowa-Teach recruitment seminar

# Building a STEM Workforce

1. workforce has been characterized by leaders as “stagnant” and “lagging,” while other states have surpassed Iowa on such measures as the National Assessment of Education Progress (NAEP) (Iowa’s Report Card, 2011).
  - In 2009, Iowa’s 8th graders ranked 25th in math and 13th in science on the NAEP, whereas in 1992 no other state outperformed Iowa (STEMConnector, 2011).
  - Of Iowa’s 2010 ACT test takers, 51 percent scored college ready in mathematics and 37 percent were college ready in biology (Glass, 2011).
  - Of Iowa’s 2011 ACT test takers, 11 percent of those who scored college ready in math and science expressed interest in a STEM major (Triplett, 2011).
  - Into higher education, Iowa undergraduates enroll in STEM majors at a 12 percent rate, while the national average is 15 percent (Change the Equation, 2011).
  - Latino/a, African-American, and Asian-American population gains account for 93 percent of Iowa’s population growth since 2000 (Grey, 2010), yet minorities are about half as likely as whites to pursue STEM careers (McPhail, 2011).
  - Iowa currently faces a worker shortage in industries including financial services, health care and skilled manufacturing (Iowa Workforce Development d, 2011).

Thus, great hope and expectations for a STEM-driven economy in Iowa supported by a slew of outstanding STEM efforts within and outside of school meet a persistently tepid talent pipeline.

## **Governor’s STEM Advisory Council**

Expanding career opportunities in strategic economic sectors elevates the issue of STEM education to a priority for Iowa’s policy makers led by Governor Branstad. Executive Order 74 created the Governor’s STEM Advisory Council in July, 2011 with the primary objective of increasing interest and achievement among Iowa’s learners of STEM.

## **About the Council**

Co-chaired by Lt. Governor Kim Reynolds and University of Northern

# Building a STEM Workforce

Iowa President Ben Allen, the forty Council members appointed by the Governor—teachers, university and community college leaders, business and industry executives, directors of state agencies, nonprofit heads, and policymakers—are a carefully balanced group of leading thinkers representing a broad spectrum of stakeholders. Members may be viewed at: <http://www.iowastem.gov/council>. The Council meets quarterly, with an executive committee meeting monthly to set priorities and direction. Nine subcommittees have been formed since the Council began, each comprised of Council members along with a total of approximately 80 additional Iowa STEM leaders.

## **Activities of the Council**

Eight priorities supporting the Governor's goals for the STEM Advisory Council were established immediately by the executive committee of the Advisory Council:

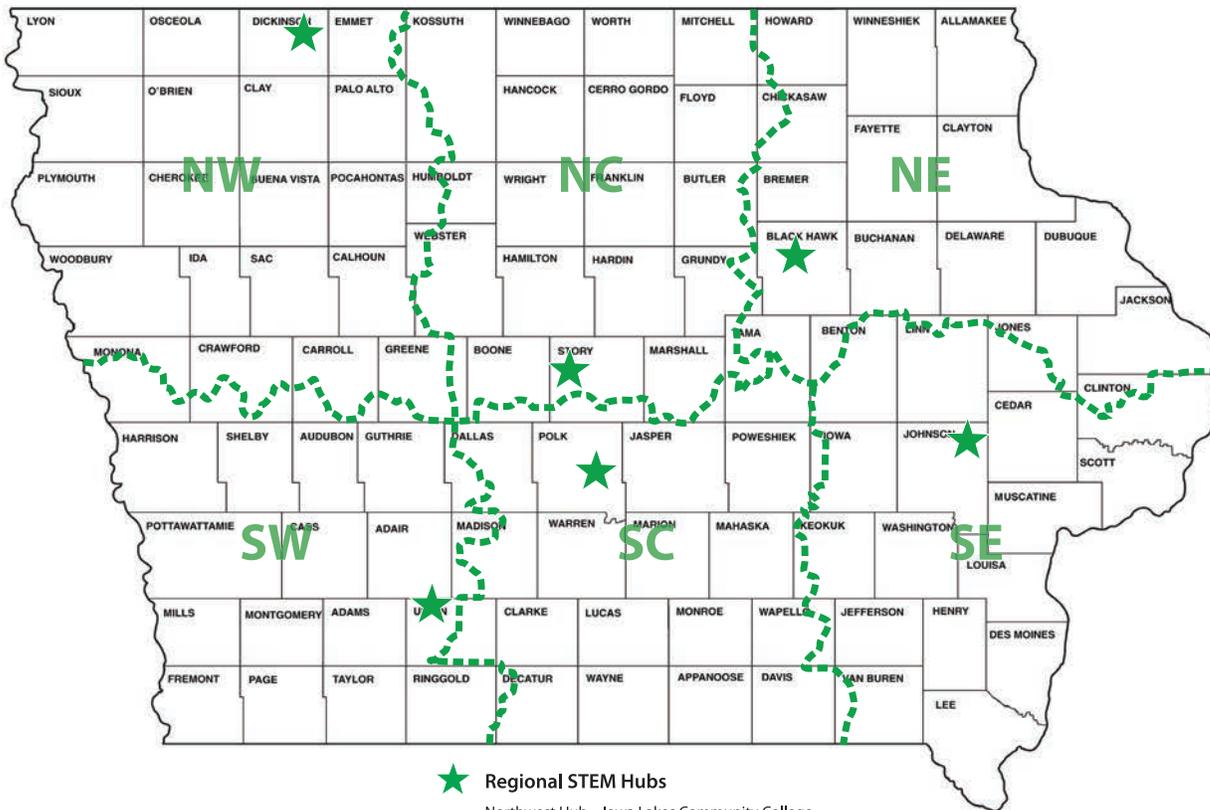
- STEM Learner Interest and Achievement
- STEM Policy measures
- Technology-enhanced STEM Instruction
- Post-secondary STEM preparedness
- STEM Teacher Recruitment and Preparation
- Public Awareness of importance of STEM
- Public-Private Partnerships mapping STEM to economic development
- STEM for all—the highly-abled, under-represented, and nontraditional

The first priority rose to the top for year 1, manifesting itself in the actions of two infrastructure planning teams. One team crafted a procedure for building a STEM Network across the state of Iowa involving six regional hubs. The second team developed a plan for scaling up the most successful STEM programs known in Iowa when it comes to generating interest and achievement, so that all Iowa learners can benefit. By the summer of 2012, the Council expects the hubs and the scale-up processes to be fully operational. Seven other priority action plan drafts have been delivered to the Council for a period of review to last through the summer of 2012 before being delivered to the

Governor. Possible actions to be a part of the final report include such STEM reforms as competency-based learning, greater focus on problem-solving skills, deeper partnerships of schools and businesses, the articulation of K-12 with workforce needs, pathways for STEM professionals to enter teaching, greater involvement of the private sector in teacher professional development, and perhaps STEM-focused schools.

# Building a STEM Workforce

## Regional STEM Hub Centers



The establishment of STEM Regions requires non-state matching funds, as well as the scale-up of programming and all activities of the Advisory Council. Iowa's wealth of assets, including our universities and community colleges, Area Education Agencies, nonprofits, informal learning centers, regional economic development and Chamber of Commerce offices, County Extension, preK-12 districts, local business and industries, local governments, libraries, teachers, school board

# Building a STEM Workforce

members, and regional workforce development offices, are all actively engaged partners in the STEM scale-up mission of the Council. In evaluating this work, an inter-university assessment team has established metrics and benchmarks to monitor. They include:

- Students' mathematics scores on the National Assessment of Educational Progress;
- Time per week students spend in science instruction;
- Highest mathematics course students take during high school;
- Time per week students spend in science instruction;
- Highest science course students take during high school;
- Number of college students who complete degrees in all STEM majors;
- Number of beginning teachers recommended for licensure in STEM-related subjects;
- Percentage of ACT test takers interested in majoring in a STEM area in college;
- Job vacancy rates in STEM occupational areas.

Workforce readiness initiatives of the Iowa Department of Workforce Development, economic innovation initiatives of the Iowa Economic Development Authority, and education reform initiatives of the Iowa Department of Education inform in a positive feedback loop the forward trajectory of the Governor's STEM Advisory Council.

## **Iowa's STEM Future**

Science, technology, engineering, and mathematics are disciplines of great economic importance for the state. Citizens who command foundational understandings and skill sets of the STEM disciplines are in better positions to earn a decent living and manage more effectively the complexities of the 21st century. The U.S. demand for scientists and engineers is expected to grow at four times the rate of all other occupations during the next decade (STEMConnector, 2011). Iowa will demand a total of 67,330 STEM jobs by 2018, up from 57,830 in 2008 (Carnavale, 2011), especially in the priority economic sectors of bioscience, information technology, and advanced manufacturing. Iowa's Gross Domestic Product is largely accounted

for by private industry (89 percent), and of that, the largest share is the manufacturing sector at 17.8 percent, heavily tied to and dependent on a STEM talent pool (CIRAS, 2011, Iowa Workforce Development, 2011).

Many states recently launched STEM initiatives in the wake of a 2010 call by the President's Council of Advisors on Science and Technology: "As the world becomes increasingly technological...STEM education will determine whether the United States will remain a leader among nations and whether we will be able to solve immense challenges in such areas as energy, health, environmental protection, and national security." No state has stronger support, more committed stakeholders, more strategically informed leadership, nor more pressing a need in STEM education than does Iowa.

— *This article was contributed by Dr. Jeffrey Weld, Executive Director of the Governor's STEM Advisory Council and Director of Iowa Mathematics & Science Education Partnership.*

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# Building a STEM Workforce

# Building a STEM Workforce

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Math teacher Bettina Khanthongdy wires LED lights for Innovative Lighting in Roland, Iowa.

# Advanced Manufacturing

## What is Advanced Manufacturing?

The term “advanced manufacturing” is used to describe where manufacturers need to be in the future to remain globally competitive. Even though manufacturing employment has declined, the sector itself has become more important to the health of the U.S. and Iowa economies. The sector is transitioning from low-technology, labor-intensive industries toward a cluster of industries that is technology-intensive, highly productive and innovative. Firms engaged in manufacturing re-invest a significant portion of revenues in research and development (R & D). Advanced manufacturing industries, including clean energy technologies, computers and pharmaceuticals play an outsized role in generating the new technologies, products and processes that drive economic growth.

In 2005, at the request of the Iowa Department of Economic Development, the Battelle Technology Partnership Practice conducted an assessment of advanced manufacturing in Iowa and associated supporting strengths in the R & D community. Since the initial assessment of the sector, considerable changes have occurred including, but not limited to, the rise of international competition through globalization, the continued trend toward the off-shoring of manufacturing jobs and a deep global and national economic recession. As a result, Battelle performed a reassessment of the sector in 2011, identifying the existing and emerging advanced manufacturing niches for Iowa. Battelle's definition of advanced manufacturing encompasses more than the traditional manufacturing industries by including research-focused businesses:

- Advanced manufacturing includes manufacturing industries that increasingly integrate innovative technologies in their production process and/or within the end product itself. The art of technology adoption and the ability to use that technology to remain competitive and add value tend to define the advanced manufacturing sector. Advanced manufacturers assess, investigate, and invest in technology areas across a wide spectrum of scientific, engineering and information technology fields. These technological advances, once embedded

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in the manufacturing operation (either in the form of new processes or products) enable manufacturers to raise productivity, to compete in global markets, and provide enhanced value to the customer through their products.

## **The Importance of Advanced Manufacturing to the Iowa Economy**

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 represents 17.8 percent of the state's gross domestic product (GDP) and accounts for 14 percent of the state's nonfarm employment. In addition, manufactured products represented 89.7 percent of Iowa's export market in 2011. Among the leading products sent to other countries are non-electrical machinery, food products, chemicals and transportation equipment.

Advanced manufacturing is also a key catalyst for broader economic growth in the state. Each job added in manufacturing leads to the creation of 2.91 additional jobs. The economic multiplier effects from manufacturing are even greater in high-tech, advanced manufacturing sectors. For example, the Milken Institute has found that every job created in electronic computer manufacturing generates 15 other jobs throughout the economy. The manufacturing "output multiplier" is also higher than any other sector of the economy. Every dollar in final sales of manufacturing products supports \$1.40 in output from other economic sectors. Advanced manufacturing comprises 33 percent of Iowa's private sector output.

## **Advanced Manufacturing Is Leading the Recovery**

Iowa's advanced manufacturing companies have been leading the current economic recovery in the state. Manufacturing lost more jobs than any other sector during the deep recession of 2008-2009, but has started to recover at an impressive pace, which is fueling activity in other sectors of the state's economy.

# Advanced Manufacturing

Figure 1 shows the employment change for the entire private sector and the advanced manufacturing industries from 2007 to 2011. For the total private sector, the loss of employment was -34,620. The 18 advanced manufacturing subsectors dropped by -11,247 over the same period. Due to the length and severity of the housing downturn, the Building and Construction Products subsector has incurred the largest loss of jobs, -8,316. Growth has occurred in eight of the subsectors with Cleantech taking the lead at 1,106.

Based on 2011 employment numbers, Iowa demonstrates regional specialization in 13 of the 18 advanced manufacturing subsectors (a regional specialization requires a location quotient of 1.2 or higher). At a location quotient of 1.35, the advanced manufacturing sector in Iowa employs about 35 percent more workers than would be expected, given advanced manufacturing's overall share of employment in the national economy.

**Figure 1. Employment in Iowa's Private Sector and Advanced Manufacturing Subsectors 2007-2011**

	Employment		Location Quotient	Employment Change	Annual Average Wage
	2007	2011	2011	2007-2011	2011
<b>Advanced Manufacturing Subsectors</b>					
<b>Total Private Sector</b>	<b>1,252,399</b>	<b>1,217,779</b>	<b>1.00</b>	<b>-34,620</b>	<b>\$38,545</b>
<b>Total, Advanced Manufacturing</b>	<b>163,427</b>	<b>152,180</b>	<b>1.35</b>	<b>-11,247</b>	<b>\$48,463</b>
Agricultural and Construction Machinery	21,640	22,457	9.76	817	\$66,051
Building and Construction Products	27,420	19,104	1.81	-8,316	\$42,915
Food Processing and Products	17,175	17,457	1.64	282	\$51,437
Aerospace	10,659	11,389	1.62	730	\$79,186
Meat Processing	10,126	10,983	2.83	857	\$39,498
Vehicular Parts and Components	12,883	7,850	1.32	-5,033	\$51,652
Automation and Industrial Machinery	12,427	9,606	1.44	-2,821	\$53,549
Polymers and Misc Plastic Products	9,579	6,553	0.97	-3,026	\$45,374
Primary Metals Manufacturing	3,644	2,472	1.56	-1,172	\$46,124
Cleantech	5,966	7,072	2.93	1,106	\$49,175
Ag Feedstock and Chemicals	6,058	5,346	4.55	-712	\$70,481
Packaging	5,762	4,659	1.08	-1,103	\$53,168
Human Biosciences	6,261	6,626	0.42	365	\$54,970
Printing	5,664	6,261	1.71	597	\$38,085
Research, Engineering and Industrial Design Services	5,421	6,368	0.32	947	\$66,049
Appliances	5,769	2,880	6.38	-2,889	\$44,872
Motor Homes and Campers	5,263	3,220	7.33	-2,043	\$38,343
Computers and Related Electronics	2,369	1,877	0.19	-492	\$53,745

Source: Quarterly Census of Employment and Wages, Labor Market and Workforce Information Division, Iowa Workforce Development.

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The 2011 annual average wage for the state’s advanced manufacturing sector was \$48,463, which was \$9,918 higher than the overall average of \$38,545 for the private sector. Among the major subsectors, aerospace had the highest annual average wage at \$79,186 followed by agricultural feedstock and chemicals at \$70,481. Printing paid the lowest annual average wage at \$38,085.

Iowa’s current list of major manufacturers is comprised of both durable and nondurable goods manufacturers. Durable goods manufacturers represent about 59 percent of the state’s manufacturing industry, and have been the main driver in the current recovery. Increased levels of farm income have been instrumental in fueling the demand for many durable goods products, particularly farm machinery.

**Figure 2. Iowa’s Top Ten Manufacturers Based on 2011 Employment (Listed Alphabetically)**

Company	Type of Product	Location
Alcoa	Aluminum products	Bettendorf
Cargill Meat Solutions	Meat products	Ottumwa
Deere & Company	Agricultural, construction and industrial equipment	Multiple locations
Pella Corporation	Windows and doors	Pella
Rockwell Collins	Communications and aviation electronics	Cedar Rapids and other
Swift Pork Company	Meat products	Marshalltown
Tyson Fresh Meats, Inc.	Meat products	Multiple locations
Vermeer Manufacturing	Agricultural, construction, environmental and industrial machinery	Pella
Whirlpool Corporation	Appliances	Amana
Winnebago Industries	Recreational Vehicles	Forest City and other

Source: Employer Database by infogroup

## Research and Development

Growth of the innovation economy and competitiveness in technology-based business sectors depend on a constant flow of new products, technologies and services from research and development. These services are related to advanced manufacturing and are taking place across both the private industry sectors and university/national laboratories.

# Advanced Manufacturing

The federal Small Business Innovation Research (SBIR) program is the nation's largest innovation program and can be a significant contributor to assist in the development and commercialization of new products for Iowa companies. The program helps increase private sector commercialization of their innovations and links universities to public and private markets. Advanced manufacturing-related R & D projects attracted \$23.3 million from federal agencies for SBIR (Phase 1) and Small Business Technology Transfer (STTR) (Phase 2) funding in 2005-2009.

The funding recipients in the advanced manufacturing cluster represent the following subcategories: biosciences, cleantech, aerospace, agricultural and construction machinery, polymers and plastic products and research, engineering and industrial design services.

Both Iowa State University and the University of Iowa operate research parks dedicated to serving the needs of growing R & D based industries. The tenant lists for the parks indicate that there has been a new business development with an advanced manufacturing focus. Bioscience is a key driver of new business development as it pertains to manufacturing in Iowa.

In terms of patent generation, the vast majority of Iowa's patents are being generated in advanced manufacturing-related areas. Between 2005-2010, 4,059 or 78 percent of Iowa's 5,192 awarded patents were in advanced manufacturing. The top classes tend to be in biotechnology—related areas, followed by agricultural and harvesting equipment technologies, communications and data processing technologies, vehicles and components and chemicals. Using patents as a surrogate for "innovation," it is clear that advanced manufacturing and associated technologies are an exceptionally important innovation arena for Iowa. The individual companies or organizations in Iowa with the highest number of patents defined as in advanced manufacturing are listed on Figure 3.

## **Advanced Manufacturing Requires Higher Skills**

Today's worker in advanced manufacturing must possess a new

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set of skills. Advanced manufacturing is becoming an increasingly automated world that is relying less on labor-intensive mechanical processes and more on sophisticated information-technology-intensive processes. The new manufacturing worker must have a wide range of skills including the ability to operate and maintain computerized machinery, read complex blueprints and demonstrate higher machine proficiency. Companies are looking for workers who think like engineers and have a broad knowledge of product design and product development. The industry will also require harder to quantify skills such as problem-solving and critical thinking.

In a recent Skills Gap study conducted by Deloitte Consulting LLP and the Manufacturing Institute, the results showed that most manufacturers have redesigned and streamlined their production lines over the past five years, while implementing more process automation. As a result, manufacturing jobs have become more complex and sophisticated. The study also found that the hardest jobs to fill are those that have the most impact on performance. Shortages in skilled production jobs—machinists, operators, craft workers, distributors, technicians, and more—are limiting manufacturers' ability to expand operations, drive innovation and improve productivity. When asked to look ahead three to five years, respondents indicated

**Figure 3. Top Patent Recipients in Advanced Manufacturing and Associated Technologies in Iowa 2005-2010**

Patent Recipient	Number of Patents Awarded
Deere & Company	408
Pioneer Hi-Bred Internationl, Inc.	388
Rockwell Collins, Inc.	273
Stine Seed Farm, Inc.	248
Monsanto Technology, LLC	191
University of Iowa Research Foundation	122
Iowa State University Research Foundation Inc.	107
Maytag Corporation	102
Fischer Controls International, Inc.	87
CNH America LLC	84
Vermeer Manufacturing Company, Inc.	84
Broadcom Corporation	53
Musco Corporation	41
Intermec IP Corporation	38
Putco, Inc.	38
Sauer-Danfoss Inc.	33
Tri/Mark Corporation	33
Syngenta Participations Ag	32
Whirlpool Corporation	29
Lisle Corporation	28

Source: "Briefing Paper: Iowa Advanced Manufacturing Industry Cluster." Prepared by Battelle Technology Partnership Practice for the Iowa Department of Economic Development.

that access to a highly skilled, flexible workforce is the most important factor in their effectiveness, ranked above factors such as new product innovation and increased market share.

Deloitte and the Manufacturing Institute made several recommendations for closing the workforce shortage, including: ramping up employer branding to make manufacturing more attractive to candidates; relying more on performance tools, such as industry certification, and training programs to increase internal talent; and leveraging technology to help recruit and retain talent. They also recommend that companies consider geographic shifts to develop a labor pool that is closer to educational and research facilities.

Efforts have begun in Iowa to roll out the National Association of Manufacturers (NAM)-Endorsed Skills Certification program across the state. The Iowa Innovation Gateway has been leading the effort and some of the state's major manufacturers have gotten involved as well as several community colleges. This commitment between business and the educational community has been made to ensure that an adequate supply of qualified workers is in the pipeline to contribute to the success of the state's advanced manufacturing sector.

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# Advanced Manufacturing

# Iowa's Health Care Industry

## Health Care Employment Continues to Grow

Iowa's more than 158,000 health care professionals are an integral part of our state's quality of life and economic well-being. As the population of the state ages these physicians, nurses, medical assistants and other healthcare professionals will play an even larger part in our everyday lives.

Several key points are highlighted in this report:

- The percentage of Iowa's nonfarm employment dedicated to health care is increasing, from 9.8 percent in 1990 to 12.1 percent in 2011.
- While the median age of Iowa's population is increasing, from 34 in 1990 to 38 in 2010, the median age of our healthcare workforce is even older at 51 years old.
- One-third of Iowa's health care workforce is 55 years or older.
- The average starting wage for health care occupations is \$16.02 an hour, relatively higher than the average starting wage for all jobs, which is around \$14.89 an hour.
- Almost one-sixth (14.6%) of health care employers plan on hiring more people in the near future, compared to only 7.1 percent planned expansion in other industries. Only 6.0 percent of health care employers plan to downsize staffing, compared to 7.5 percent of employers in other industries.

## An Aging Population Supports Strong Industry Growth

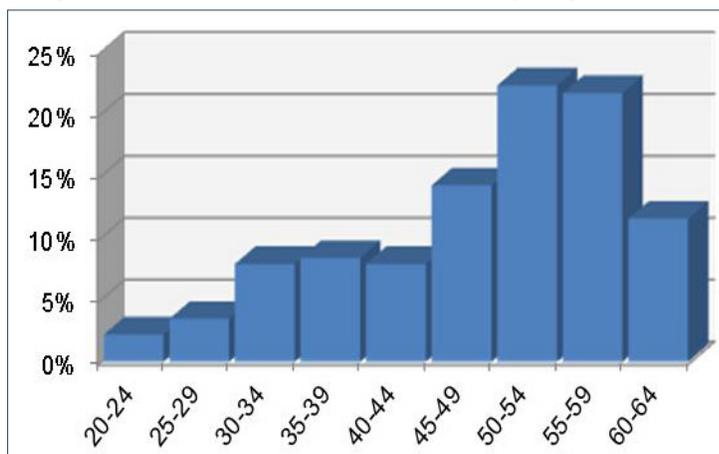
The population of Iowa, along with that of the nation, is experiencing a significant shift in median age as the baby boomer generation approaches retirement. The median age of Iowa's population, the age at which exactly half of the population is younger than this age and half are older, has been increasing steadily over the last 40 years. In 1970, the median age of Iowa's population was 28.8 years old. This number increased to just over 34 years old in 1990, and now stands at 38 years old.

Starting in 2011, over 10,000 people across the country reach the age of 65 every day. This trend is set to continue for the next few decades with Iowa's median age reaching 42 years old in 2030. This will place an ever-increasing need on the healthcare industry and those tasked with our care and well-being.

# Iowa's Health Care Industry

As if the momentum behind an increasing median age of the population were not enough, the state also faces a crisis with an aging health care workforce as well. Currently, the median age of those working in the health care industry is 51 years old, well above that of the general population. In fact, one-third of the state's health care workforce is 55 years or older. Figure 1 breaks down the industry by specific age group. The state faces a shortage of health care workers as those in the last three age groups reach retirement age and drop out of the workforce. Approximately 15.6 percent of the state's healthcare workforce will reach retirement age over the next five years.

**Figure 1. Health Care Workers by Age Group**



Source: 2011 Statewide Laborshed Survey. Labor Market and Workforce Information Division, Iowa Workforce Development.

## Health Care Employment Growth and Wages

Looking further into the separate jobs that make up the health care industry, we find that employment in the industry is expected to grow at more than twice the rate of all other jobs with an annual increase in employment between 2.0-2.5 percent. In fact, 35 of the 39 listed occupations within the industry have expected growth rates of employment higher than the average for all jobs across the state.

Still some occupations within the industry will grow at an even faster rate than all others. These occupations include dental assistants, dental hygienists, home health aides, and veterinary technicians,

# Iowa's Health Care Industry

which are projected to increase employment by more than 3.0 percent annually to the year 2018.

The industry has been one of the few to see continued employment and wage growth throughout the recession. From December of 2007 to December 2011, the Healthcare and Social Services industry increased employment by 7.9 percent, the highest of any industry. This happened while total employment by private establishments decreased by 3.2 percent over the same period and some industries, notably construction and manufacturing, cut more than 9.0 percent of their workforce.

**Figure 2. Ambulatory Health Care Services Occupations  
(Based on 2008 Estimated Employment)**

Occupational Title	2008 Estimated Employment	2018 Projected Employment	Mean Hourly Wage	Entry Hourly Wage
Registered Nurses	5,975	8,295	\$24.53	\$17.65
Receptionists and Information Clerks	3,170	3,575	13.49	10.43
Dental Assistants	2,760	3,640	16.44	12.41
Home Health Aides	2,545	3,970	10.03	8.40
Medical Secretaries	2,520	3,255	13.76	10.32
Medical Assistants	2,235	2,930	14.44	11.63
Dental Hygienists	1,845	2,430	31.31	27.31
Family and General Practitioners	1,570	1,995	102.16	n/a
Billing and Posting Clerks and Machine Operators	1,520	1,810	15.88	12.31
Licensed Practical and Licensed Vocational Nurses	1,350	1,755	16.72	14.14
Office Clerks, General	1,050	1,370	13.37	9.45
Radiologic Technologists and Technicians	875	1,145	n/a	n/a
Medical and Health Services Managers	860	1,100	34.53	22.63
Secretaries, Except Legal, Medical, and Executive	800	1,155	13.35	10.20
Physicians and Surgeons, All Other	790	1,005	101.42	n/a
Physical Therapists	760	1,095	34.74	26.45
Emergency Medical Technicians and Paramedics	740	785	13.47	8.89
Medical Records and Health Information Technicians	710	915	12.97	10.22
Medical Transcriptionists	700	835	14.83	12.27
Mental Health and Substance Abuse Social Workers	595	760	17.68	12.21

Source: Labor Market and Workforce Information Division,  
Iowa Workforce Development

**Figure 3. Hospital Occupations  
(Based on 2008 Estimated Employment)**

Occupational Title	2008 Estimated Employment	2018 Projected Employment	Mean Hourly Wage	Entry Hourly Wage
Registered Nurses	18,040	21,470	\$26.10	\$20.21
Nursing Aides, Orderlies, and Attendants	5,320	5,845	12.35	10.39
Medical and Health Services Managers	2,000	2,190	39.22	28.37
Maids and Housekeeping Cleaners	1,920	1,675	10.79	8.67
Licensed Practical and Licensed Vocational Nurses	1,805	1,970	17.60	14.46
Radiologic Technologists and Technicians	1,515	1,655	n/a	n/a
Healthcare Support Workers, All Other	1,170	1,280	12.94	10.69
Medical Secretaries	1,115	1,240	14.78	11.60
Medical and Clinical Laboratory Technologists	1,040	1,020	25.90	20.61
Secretaries, Except Legal, Medical, and Executive	995	990	14.38	10.92
Emergency Medical Technicians and Paramedics	930	1,010	15.13	11.04
Office Clerks, General	880	960	16.02	11.67
Medical Transcriptionists	870	855	15.33	12.54
Food Servers, Nonrestaurant	820	900	9.96	8.43
Medical Records and Health Information Technicians	815	890	16.44	12.06
Respiratory Therapists	740	895	23.03	19.27
Cooks, Institution and Cafeteria	730	725	12.14	9.99
Maintenance and Repair Workers, General	670	755	n/a	n/a
Food Preparation Workers	645	640	11.16	8.67
Home Health Aides	635	765	15.86	11.62

Source: Labor Market and Workforce Information Division,  
Iowa Workforce Development

**Figure 4. Nursing and Residential Care Facilities Occupations  
(Based on 2008 Estimated Employment)**

Occupational Title	2008 Estimated Employment	2018 Projected Employment	Mean Hourly Wage	Entry Hourly Wage
Nursing Aides, Orderlies, and Attendants	15,560	19,055	\$11.39	\$9.80
Home Health Aides	5,665	7,895	10.31	8.41
Licensed Practical and Licensed Vocational Nurses	3,525	4,320	17.85	15.24
Registered Nurses	2,970	3,600	22.71	18.87
Maids and Housekeeping Cleaners	2,435	2,365	9.96	8.36
Cooks, Institution and Cafeteria	2,135	2,645	10.53	8.45
Personal and Home Care Aides	1,765	1,810	9.19	8.56
Food Preparation Workers	1,225	1,350	9.47	8.55
Social and Human Service Assistants	1,205	1,335	12.64	9.27
Combined Food Preparation and Serving Workers, Including Fast Food	1,020	1,200	9.49	8.26
Laundry and Dry-Cleaning Workers	980	1,070	10.56	8.45
Rehabilitation Counselors	925	1,020	13.44	10.55
Recreation Workers	860	1,155	11.10	8.45
Maintenance and Repair Workers, General	720	855	n/a	n/a
Food Servers, Nonrestaurant	710	850	8.88	8.20
Medical and Health Services Managers	665	790	29.32	20.36
Child, Family, and School Social Workers	580	635	15.78	10.42
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	550	580	11.43	8.71
Mental Health and Substance Abuse Social Workers	335	410	18.66	11.91
Medical and Public Health Social Workers	330	400	19.94	15.41

Source: Labor Market and Workforce Information Division,  
Iowa Workforce Development

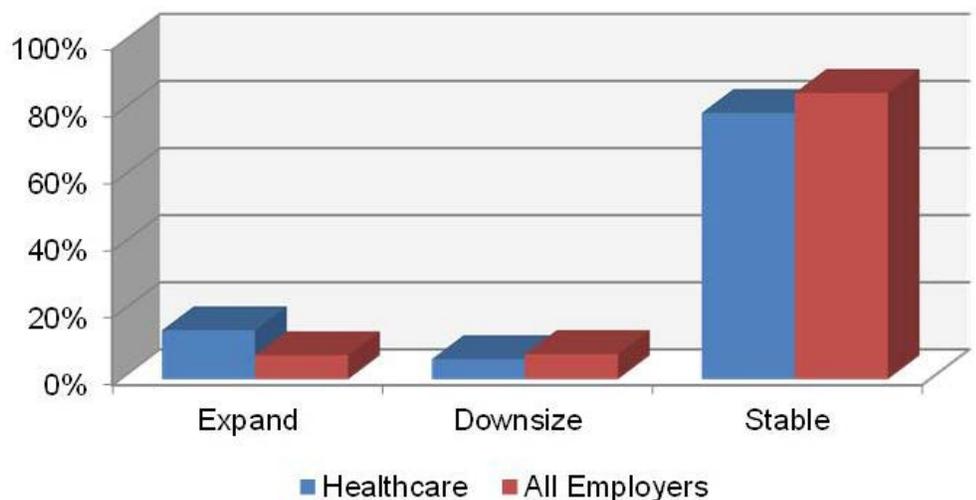
# Iowa's Health Care Industry

## Workforce Needs

The 2010 Iowa Workforce Needs (Job Vacancy) Assessment shows a strong need for workers in the health care industry. Almost a quarter (23.4%) of all job vacancies reported were for healthcare and social services for an estimated 8,698 open positions across the state. Health care and social services had the third-highest vacancy rate with 4.3 positions open for every 100 current jobs. Only agriculture and mining and administrative and waste services had higher vacancy rates, largely due to the smaller size of their respective industries. Health care practitioners and health care support were the second and third most demanded occupational groups as reported by employers.

Figure 5 shows the percentage of employers within the healthcare industry as well as all others and their payroll plans for the near future. Roughly 14.6 percent of all employers in the healthcare industry are planning to increase payroll compared to just 7.1 percent of all other employers planning to expand. Positive evidence for the industry is also seen in the number of employers projecting a cut in payroll. Only 6.0 percent of employers in the health care industry are planning to downsize staffing compared to 7.5 percent of all other employers projecting a cut in staffing.

**Figure 5. Future Hiring Plans of Healthcare Employers Versus All Employers**



Source: 2010 Iowa Workforce Needs (Job Vacancy) Assessment. Labor Market and Workforce Information Division, Iowa Workforce Development.

# Iowa's Health Care Industry

Vacancies in the healthcare industry show a greater need for education when compared to other vacancies. Sixty-five percent of all healthcare vacancies require some education beyond high school, while only 49.7 percent of vacancies across all occupations require some post-secondary education.

The greatest difference in education requirements comes in the need for certificate programs or some technical/vocational training in health care occupations.

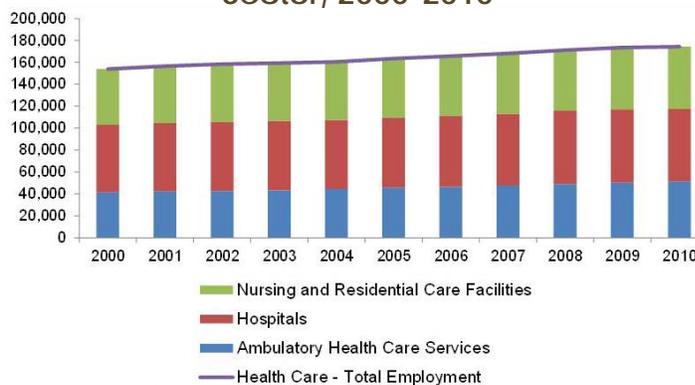
Almost a quarter (24.6%) of all healthcare job vacancies require some form of technical or vocational training, while only 16.1 percent of all job vacancies require this specialized training.

Employers in the healthcare industry show a greater

need for less experienced workers as well. Almost half (46.8%) of job vacancies in the healthcare industry require no experience in the field, while fewer (40.5%) overall job vacancies are available that require no experience. A little over one-third (38.7%) of healthcare job vacancies require experience greater than one year, compared to almost half (46.7%) of all job vacancies with greater than one year experience requirement.

Three industries: Ambulatory Health Care Services, Hospitals, and Nursing and Residential Care Facilities comprise the bulk of employment for health care professionals in Iowa. Figure 6 shows that while the share of employment at hospitals has increased, employment as a percentage of the total within the three industries has remained fairly consistent through the last decade.

**Figure 6. Components of the Health Care Sector, 2000-2010**



Source: Quarterly Census of Employment and Wages (QCEW), Labor Market and Workforce Information, Iowa Workforce Development.

# Iowa's Health Care Industry

The list below shows the largest health care facilities in the state. Most of the larger employers in the industry are hospitals.

**Figure 7. Iowa's Health Care Facilities with 1,000 or More Employees (Listed Alphabetically)**

Name	Type of Facility	Location
Allen Hospital	Hospital	Waterloo
Blank Children's Hospital/Iowa Methodist	Hospital	Des Moines
Covenant Medical Center	Rehabilitation Services	Waterloo
Genesis Medical Center	Hospital	Davenport
Genesis Medical Center	Cancer Treatment Center	Davenport
Great River Medical Center	Rehabilitation Services	West Burlington
Mercy Hospital	Hospital	Iowa City
Mercy Medical Center	Hospital	Des Moines
Mercy Medical Center	Hospital	Cedar Rapids
Mercy Medical Center	Hospital	Dubuque
St. Luke's Hospital	Hospital	Cedar Rapids
University of Iowa Health Care	Hospital	Iowa City

Source: Employer Database by infogroup.

### The Healthcare Industry and the Multiplier Effect

Growth in the healthcare industry not only positively affects the professionals within the industry and the system of well-being in the state, the industry also impacts the rest of the economy through employment in service-related jobs and increased state and local revenues.

Using input-output analysis, an economic model designed to show how much an industry impacts the economy, we begin to get a sense of the effects growth in the health care industry has on the statewide economy. The analysis can tell us how many supporting jobs are created from each additional healthcare position, how much each position contributes to the economy in employee compensation, how much additional state and local revenues are created, and the total estimated economic impact of the new healthcare job.

While growth in the healthcare industry itself is impressive, the effect across the economy may be just as impressive. Analysis of industry growth shows that each additional job within the industry contributes to:

- an average \$43,344 in employee compensation
- the creation of ½ full-time worker job creation throughout the economy

- an additional \$154,616 in economic output for the state
- an additional \$5,562 in state and local taxes

An annual employment growth rate of 2.2 percent within the industry translates to about 3,500 new health care jobs each year. Beyond the addition of these new jobs, more than 1,700 new service and supporting jobs will be created, and will increase state and local revenues by more than \$19 million. When one considers the multiplier effect of job creation and economic output from these new jobs, it becomes evident that growth in the healthcare industry should be nurtured since it ensures a higher quality of life and economic well-being for the state.

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Employer Database provided by infogroup. Available: <http://iwin.iwd.state.ia.us/iowa/employers>

# Iowa's Health Care Industry

# Iowa Gender Wage Equity Study 2012

The Iowa Gender Wage Equity Study reflects results gathered by Iowa Workforce Development (IWD) using 2011 statewide Laborshed Survey data. It contains detailed information regarding gender by occupational category, earnings, full-time/part-time employment, educational level and years of experience. This information is derived from a random household employment survey of people 18 to 64 years of age.

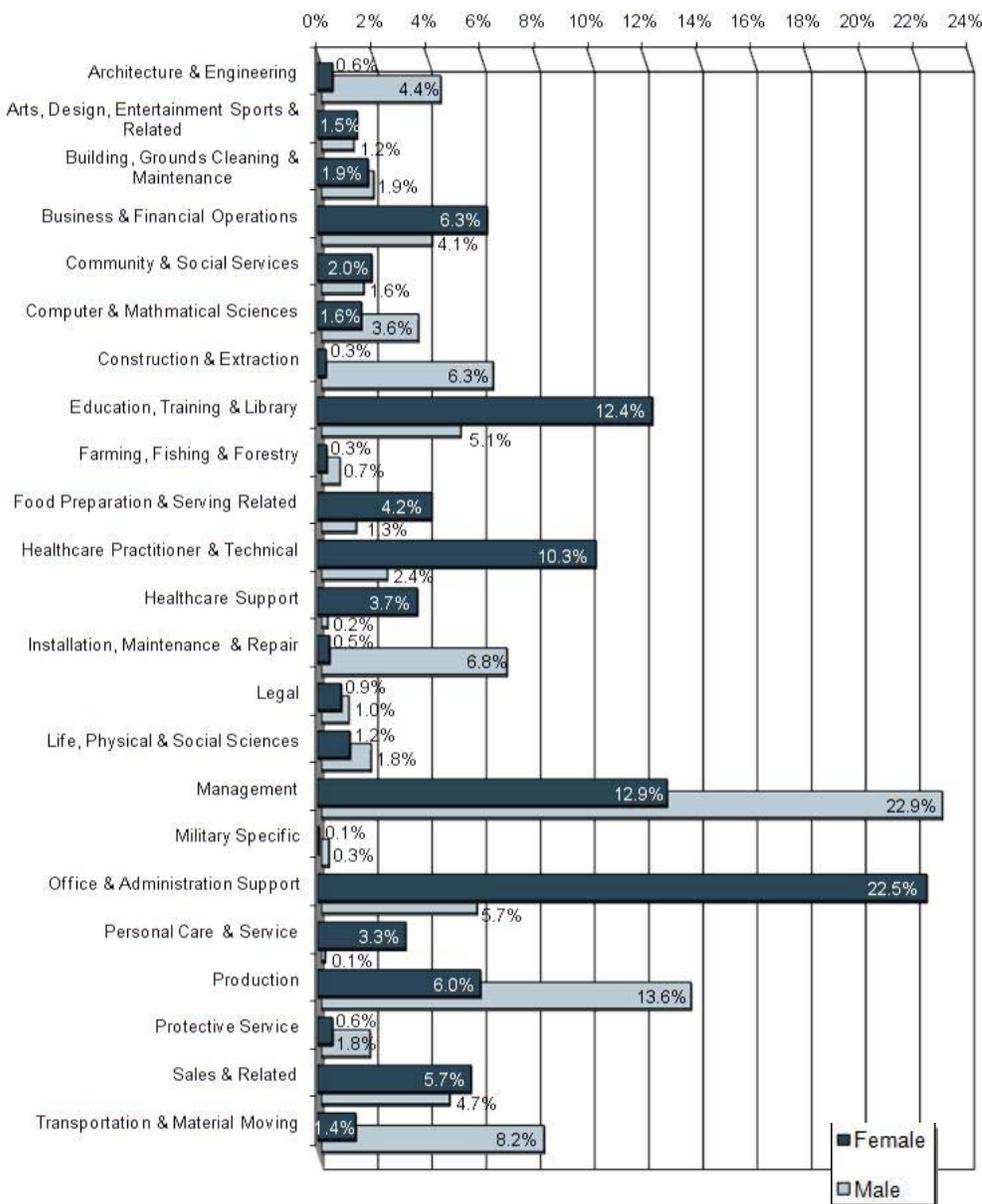
## Occupational Categories

Wages earned by an individual often correspond with the occupational category they are employed within. Figure 1 delineates male and female respondents by occupational category. The majority of the female workforce is in the office and administrative support (22.5%); management (12.9%); education, training and library (12.4%) and healthcare practitioner and technical (10.3%) occupational categories. The majority of the male workforce is in management (22.9%); production (13.6%); transportation and material moving (8.2%); installation, maintenance and repair (6.8%) and construction and extraction (6.3%) occupational categories. In addition, the occupational categories that have workforces that are most evenly split between the genders are management (50.9% male, 49.1% female); life, physical and social science (47.1% male, 52.9% female); farming, fishing and forestry (53.6% male, 46.4% female) and computer and mathematical science (56.1% male, 43.9% female).



# Iowa Gender Wage Equity Study

**Figure 1. Percent of Female and Male Respondents by Occupational Category**



## Earnings by Occupational Category

The annual and hourly wage disparity between genders is shown by occupational category on Figure 2. There are some occupational categories that indicate little disparity while others reveal large gaps in wages paid. The table shows the median annual salary and median hourly wage for each occupational category by gender. In some cases females are earning a higher median salary than their male counterparts. The transportation and material moving;

# Iowa Gender Wage Equity Study

installation, maintenance and repair and production occupational categories show females earning a higher median salary than males. Building, grounds cleaning and maintenance and community and social services occupational categories show little difference in median salaries between the genders. However, in over half of the occupational categories males are earning more than females; in many cases a great deal more. The greatest median annual salary disparities are in the healthcare practitioner and technical (\$25,000); architecture and engineering (\$24,000); life, physical and social sciences (\$19,250) and management (\$18,000) occupational categories.

The median hourly wages earned by occupational category shows that in every category male respondents out earn their female counterparts. The greatest discrepancies are highlighted in the table below.

**Figure 2. Median Salaries and Median Hourly Wages by Occupational Category**

Occupational Category	Female Median Salary	Male Median Salary	Differential	Female Median Wage	Male Median Wage	Differential
Healthcare Practitioner & Technical	\$ 56,000	\$ 81,000	\$ 25,000	\$ 21.00	\$ 22.05	\$ 1.05
Architecture & Engineering	\$ 56,000	\$ 80,000	\$ 24,000	\$ 20.00	\$ 22.50	\$ 2.50
Life, Physical & Social Sciences	\$ 46,250	\$ 65,500	\$ 19,250	\$ 15.50	\$ 32.00	\$ 16.50
Management	\$ 52,000	\$ 70,000	\$ 18,000	\$ 12.84	\$ 21.00	\$ 8.16
Computer & Mathematical Sciences	\$ 54,500	\$ 70,000	\$ 15,500	\$ 18.06	\$ 20.00	\$ 1.94
Arts, Design, Entertainment Sports & Related	\$ 35,000	\$ 48,000	\$ 13,000	\$ 12.00	\$ 13.50	\$ 1.50
Office & Administration Support	\$ 38,000	\$ 50,000	\$ 12,000	\$ 13.00	\$ 14.00	\$ 1.00
Sales & Related	\$ 39,000	\$ 50,000	\$ 11,000	\$ 9.00	\$ 9.70	\$ 0.70
Farming, Fishing & Forestry	\$ 25,000	\$ 35,000	\$ 10,000	\$ 9.38	\$ 15.63	\$ 6.25
Education, Training & Library	\$ 46,500	\$ 55,000	\$ 8,500	\$ 10.77	\$ 11.00	\$ 0.23
Legal	\$ 80,000	\$ 86,500	\$ 6,500	\$ 19.88	\$ 73.50	\$ 53.62
Business & Financial Operations	\$ 55,000	\$ 60,000	\$ 5,000	\$ 15.00	\$ 19.00	\$ 4.00
Community & Social Services	\$ 49,000	\$ 50,000	\$ 1,000	\$ 13.75	*	*
Building, Grounds Cleaning & Maintenance	\$ 14,000	\$ 13,850	\$ (150)	\$ 10.00	\$ 11.36	\$ 1.36
Production	\$ 55,000	\$ 50,000	\$ (5,000)	\$ 13.61	\$ 17.00	\$ 3.39
Installation, Maintenance & Repair	\$ 52,000	\$ 42,000	\$ (10,000)	\$ 12.25	\$ 19.00	\$ 6.75
Transportation & Material Moving	\$ 58,000	\$ 45,000	\$ (13,000)	\$ 11.15	\$ 14.00	\$ 2.85
Construction & Extraction	*	\$ 50,000	*	\$ 15.00	\$ 19.45	\$ 4.45
Food Preparation & Serving Related	\$ 18,250	*	*	\$ 8.50	\$ 8.63	\$ 0.13
Healthcare Support	*	*	*	\$ 11.98	*	*
Military Specific	*	\$ 50,000	*	*	*	*
Personal Care & Service	\$ 21,000	*	*	\$ 9.00	*	*
Protective Service	*	\$ 50,000	*	\$ 14.59	\$ 18.00	\$ 3.41

\*Insufficient survey data/refused

## Employment Status and Hours Worked

An individual's employment status can have a great impact on the wages they earn. Respondents were asked to identify if they were employed or unemployed. Nearly three-fourths (74.1%) of female respondents said they were employed compared to 77.8 percent

# Iowa Gender Wage Equity Study

**Figure 3.  
Female Employment Status**

Employment Status	Female Respondents	Percent
Full-time (35+ hours)	2,628	69.6%
Part-time	792	21.0%
Self-employed	261	6.9%
Temporary	45	1.2%
Seasonal	42	1.1%
Refused	7	0.2%
Total	3,775	100%

of males. Figure 3 further illustrates the employment status of females. Most females are working full-time (69.6%); however, it is notable that 21.0 percent of females are employed part-time. This may explain some of the wage disparity as over three-fourths (77.2%) of males are employed

full-time and only 6.6 percent are employed part-time.

In addition, both genders reported a relatively high percentage of respondents working 31 to 40 hours per week (48.9% for females and 37.3% for males). However, there are other patterns present that are significant and show some distinct differences between the genders.

For example, Figure 4 the proportion of female respondents who worked less than 31 hours per week (20.0%) is more than three times the percentage of male respondents (6.6%) that worked those hours. The reverse situation is reflected in the data for respondents who worked over 50 hours per week (20.9% males versus 9.9% females).

**Figure 4.  
Hours Worked per Week**

Hours Worked Per Week	Male	Female
10 or less	0.7%	2.6%
11 to 20	2.8%	7.2%
21 to 30	3.1%	10.2%
31 to 40	37.3%	48.9%
41-50	35.2%	21.2%
51 or more	20.9%	9.8%

## Education Level

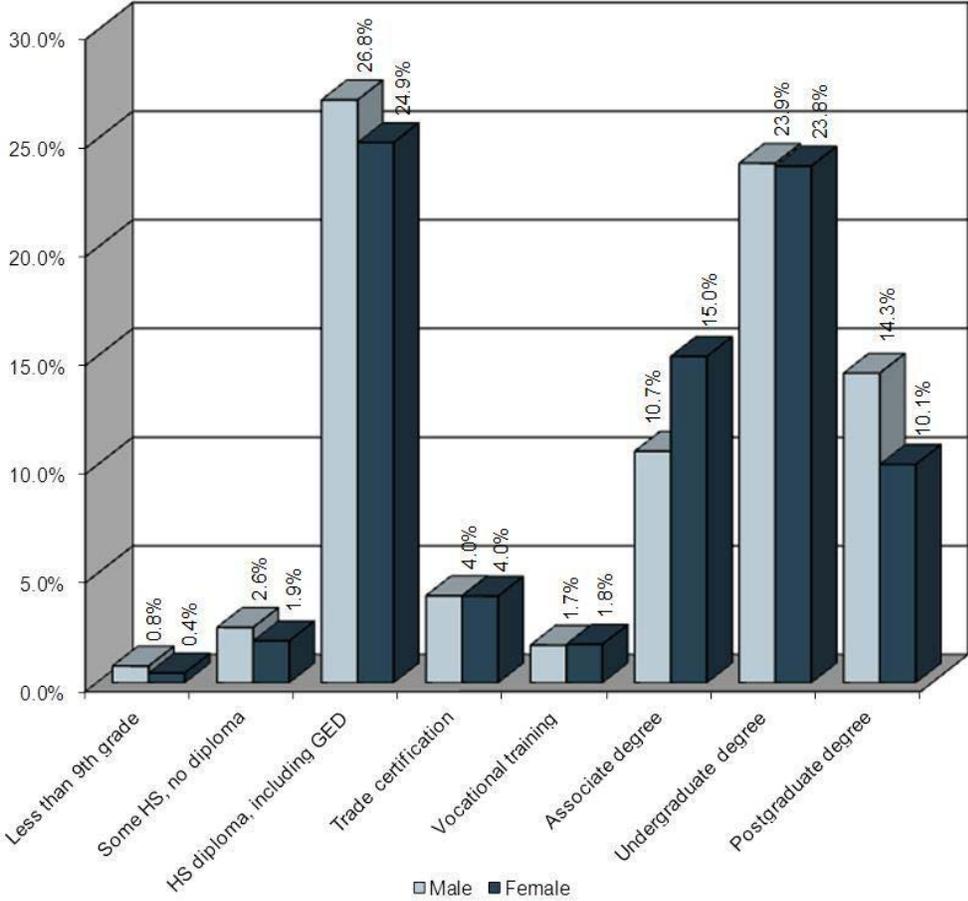
The level of education an individual receives also affects the wages they earn. Respondents were asked during the survey to report the highest level of education attained. The category labeled “some education beyond high school” represents those that have taken classes beyond high school but have not yet completed a degree or certification program.

As seen in Figure 5, a slightly higher percentage of males report having a high school diploma or GED (26.8 percent males, 24.9 percent females). However, at most education levels there is little

# Iowa Gender Wage Equity Study

variance between males and females. The greatest differences are at the associate degree level where females have an edge of 4.3 percent over the males; and at the postgraduate degree level where males exceed the females by 4.2 percent.

Figure 5. Education Level by Gender



Among those reporting an hourly wage, male respondents were shown to have higher wages than females for the same level of education. In the high school diploma/GED category, the median hourly wage for males is \$16.00/hour while females are currently making a median wage of \$11.05/hour. Males with an associate degree are receiving a median hourly wage of \$19.00/hour and females are receiving \$14.00/hour. Although the difference in the percentage of males to females that have an undergraduate degree is negligible (23.9% males to 23.8%

# Iowa Gender Wage Equity Study

females), males again have a higher hourly median wage level (\$19.78/hour) than females (\$15.00/hour). The gap doesn't close significantly until the postgraduate degree level where the median wage of males (\$20.50) is only \$1.05 greater than that of females (\$19.45).

In addition, over two-fifths (44.4%) of males that earn an hourly wage have an education beyond high school and 60.8 percent of hourly wage earning males earn a median hourly wage of \$15.00 or greater. Over half (55.2%) of female respondents that earn hourly wages have an education beyond high school. However, only 37.5 percent of all these females reported a median hourly wage of \$15.00 or higher.

Among those reporting an annual salary, with the exception of the "less than 9th grade" education level — where both males and females earn a median salary of \$30,000 — males also earn higher salaries than females for the same level of education. Again the gap between male and female annual salary earners does not begin to noticeably reduce until the postgraduate degree level where males (\$65,000) are earning a median salary of \$7,000 more than that of females (\$58,000).

Additionally, the percentage of male (84.4%) and female (85.7%) respondents that earn an annual salary and have completed education levels beyond high school are fairly similar. Yet, nearly two-thirds (64.5%) of male salary earners earn a median salary of \$50,000 or greater while 44.2 percent of female respondents reported a median salary of \$50,000 or more.

## Years of Experience

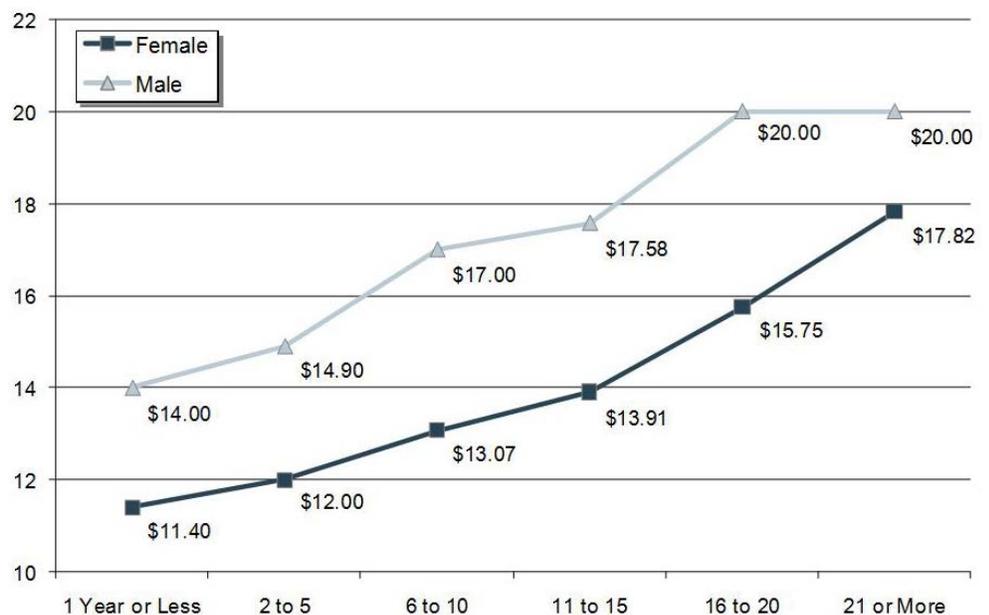
Another factor that impacts the wages an individual earns is their years of employment experience. In regard to years of experience on the job, males have worked an average of 15 years and females have worked an average of 11 years at their current position. Nearly one-fifth (19.8%) of females have work experience of five years or less. Nearly one-fifth (15.9%) of males also have work experience of five years or less with their current employer. These high percentages may be due to the recent economic decline and resulting layoffs. However, there is still a substantial number of respondents with a significant amount of

# Iowa Gender Wage Equity Study

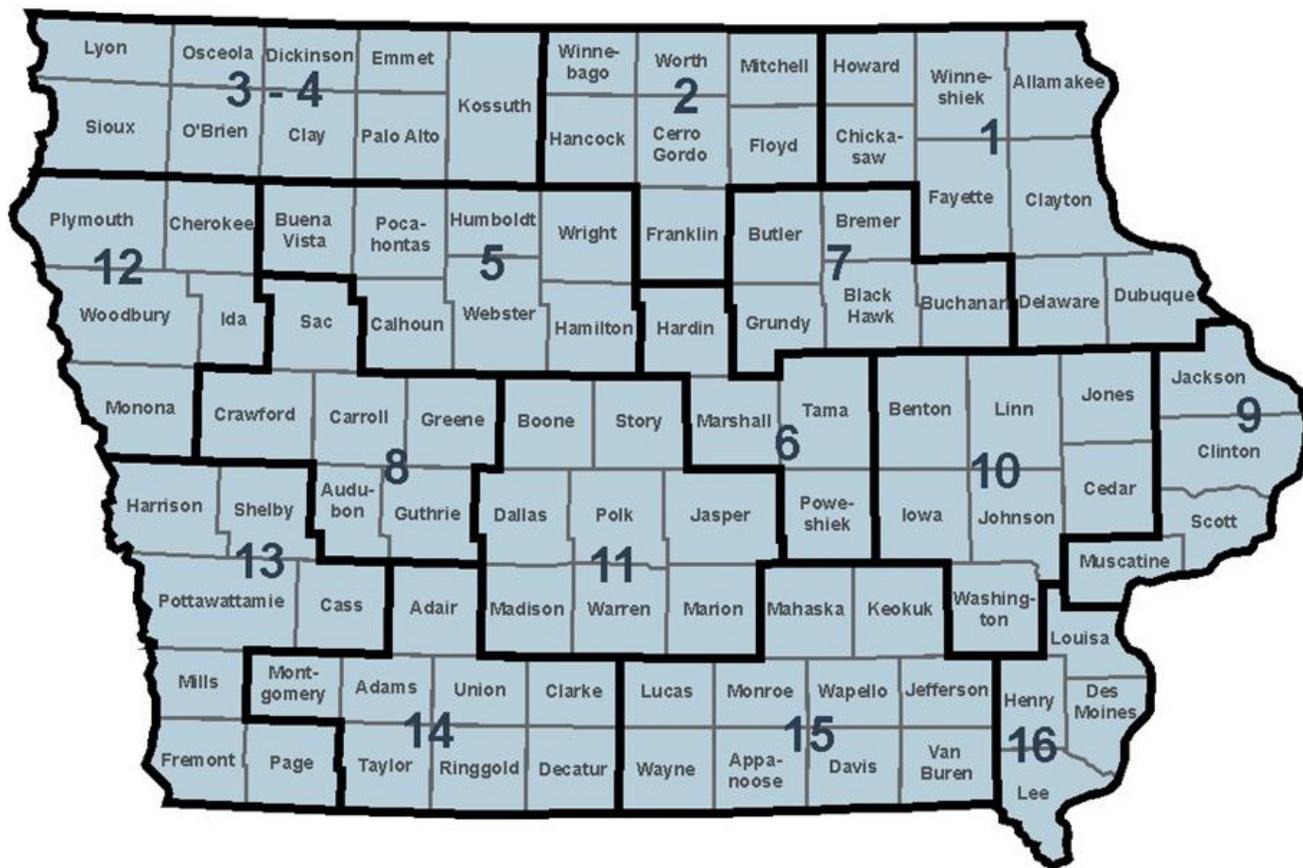
work experience. Slightly over one-fifth (20.7%) of females have been employed with their current employer for over 20 years. Likewise, 32.0 percent of males have over 20 years of experience at their current job.

Figure 6 represents the median hourly wages for males and females by years of experience (considering full-time employment only). The greatest disparities occur among those that have 6 to 10 years of experience, with males earning \$3.93/hr more than females, and those that have 16 to 20 years of experience with males earning \$4.25/hr more than their female counterparts. Observe that, except for two occasions, the male median hourly wage increases at a greater rate than that of females. The jump from 2 to 5 years experience to 6 to 10 shows the largest percentage increase for males (12.4%) while female wages increase by only 8.2 percent. The gap in wages narrows some in the 21 or more years of experience level as the male median wage remains at \$20.00/hr and the female median hourly wage increases by 11.6 percent to \$17.82/hr. This is a substantial gain, however, it is only \$0.24 higher than the median hourly wage males are earning with 11 to 15 years of experience.

**Figure 6. Wages by Experience**



# Economic Development Initiatives by Region



## Region 1

**Dubuque** — A.Y. McDonald Manufacturing has announced it will invest \$2.6 million in capital, and create 17 new jobs. The company is being proactive in adding new machinery and equipment to produce a complete line of no-lead brass products. This plan was in place long before the passage of the Reduction of Lead in Drinking Water Act, which reduces the allowable lead content of wetted surfaces in drinking water pipes, pipe fittings, and plumbing fixtures by 2014.

**Dubuque** — Flexsteel Industries, Inc., the nation's eighth largest furniture manufacturer, has announced plans to construct a \$12 million, four-story, 40,000 square-foot corporate office building in the Port of Dubuque. The corporate headquarters would create 10 new jobs, and would be completed in mid-2012.

**Dubuque** — Green Industrial Supply, Inc. plans to expand in the Dubuque Industrial

# Economic Development Initiatives by Region

Center West. They will build a 120,000-square-foot warehouse and an attached 20,000-square-foot office, representing an \$11.3 million investment by the company and the creation of 17 new jobs. Green Industrial, established in 1998 in Dubuque, specializes in domestic and global logistics and management for vendors and suppliers of manufacturing companies, including John Deere.

**Dubuque** — Heartland Financial anticipates the creation of 50 new jobs over the next three years. The positions will support departments that provide service to Heartland's nine subsidiary banks, including its flagship bank, Dubuque Bank and Trust. Heartland currently has 450 employees in Dubuque.

**Dubuque** — John Deere Dubuque Works has announced a major expansion to the Dubuque facility. This expansion includes a \$44 million capital investment and 125 new jobs for Dubuque.

**Dubuque** — Klauer Manufacturing announced plans to expand their facility and partner with a major distributor to manufacture steel siding and accessories for residential housing. The expansion will add 13 jobs. The two Klauer Manufacturing locations in Dubuque produce a wide variety of products servicing the residential, agricultural and commercial construction markets.

**Dubuque** — The Hodge Company (TM Logistics) announced plans in June 2011 to build a new 10,000-square-foot facility in the Dubuque Industrial Center West, their third recent expansion. Ten new jobs will be created. The Hodge Companies specializes in planning, expediting, and efficiencies to serve customers well beyond the traditional warehouse and distribution center.

**Dubuque** — Theisen Supply Inc. is planning a major expansion to its Dubuque headquarters and distribution center, the second in about five years. The estimated \$2.5 million project, which is expected to be completed by August 2012, will create 10 new jobs. The company currently has 20 stores in Iowa.

**Dyersville** — FarmTek will construct a new manufacturing facility and technology center in Dyersville. The \$3.5 million capital investment is expected to create 100 new jobs. The company supplies products related to tension fabric buildings, commercial greenhouses, and

agricultural and poultry needs.

**Elkader** — Caterpillar plans to expand production in 2012, and create 41 jobs. Caterpillar Elkader manufactures ejector trailers and attachments for the rubber-tracked Caterpillar Challenger tractors. Peoria-based Caterpillar acquired E-Ject Systems of Elkader in 2008.

**Farley** — Behnke Enterprises, Inc., has announced plans for a major expansion. The company will create 25 new jobs and make a capital investment of more than \$1.5 million. Behnke Enterprises, Inc. is a premier manufacturer of agricultural and industrial trailers, and has over 70 employees.

**New Hampton** — TriMark, an employee-owned company that makes heavy duty vehicle hardware, plans to expand its operation in 2012-2013, adding 60 employees. The company celebrated its 40th anniversary in 2011.

**Oelwein** — Ashley Industrial Molding will continue to expand over the next couple of years. The Indiana based company; custom molds and paints plastic products for agricultural, industrial and other markets. Ashley could increase its employment in Oelwein by well over 100.

**Peosta** — Canadian-based Camoplast/Solideal has announced a major expansion, which will involve a \$2.4 million capital investment and create 23 new jobs. Camoplast designs, develops and manufactures specialized components, sub-systems and assemblies for original equipment manufacturers (OEMs) and makes rubber, composite, plastic, and snowmobile garments. The proposed project will allow the company to relocate to a larger building and purchase new equipment.

## Region 2

**Charles City** — Farm and industrial tire manufacturer Mitas cured its first test tire in January 2012. Mitas, which manufactures agricultural tires, is based in the Czech Republic. During the second half of 2011, Mitas began hiring workers for core positions, including foremen and maintenance workers, who were sent to the Czech Republic for training. The company plans to begin full-scale production with 159 employees in early 2012.

# Economic Development Initiatives by Region

# Economic Development Initiatives by Region

**Mason City** — Cargill Inc. announced in June 2011 that it planned to expand its Cargill Kitchen Solutions plant in Mason City. The \$12.5 million project began during the summer of 2011, and was scheduled for completion in the spring of 2012 will add about 25 jobs to the workforce of 150. Cargill Kitchen Solutions, based in Monticello, MN, is an egg further processor and markets egg products primarily to the food service industry in North America.

**Osage** — Groundbreaking for the new Valent BioSciences Corporation is scheduled for March 2012 with construction running for the next two years. The Chicago-based Gilbane Building Company will manage the construction of the 130,000 square-foot facility. The \$146 million project will bring 89 permanent jobs to the Osage area. The new plant will be the first ever full-scale manufacturing facility designed and constructed specifically for production of biorational products. Biorationals are derived from natural or biological origins and used in agricultural, public health, and forestry applications.

**Sheffield** — Sukup Manufacturing continues to expand and hire workers. The company is the world's largest family-owned grain bin manufacturer, whose product line now includes grain dryers, farm and commercial grain bins, bucket elevators, and material conveying systems. Sukup committed financial support to the Biorenewables Complex at Iowa State University. A new gift commitment announced at the September 30, 2011 groundbreaking ceremony for the second phase of the complex, will have a building named Sukup Hall along with the atrium area. The structures will house the agricultural and biosystems engineering department, which was ranked second in the nation by U.S. News & World Report.

## **Region 3-4**

**Emmetsburg** — The Energy Department plans to provide a \$105 million loan guarantee for the expansion of an ethanol factory in Emmetsburg to make motor fuel from corncobs, leaves and husks. The new factory, being built by POET, a major producer of ethanol derived from corn kernels, could be the first commercial-scale plant to make ethanol from a nonfood, or cellulosic, plant source. The expansion could result in 40-50 new jobs.

# Economic Development Initiatives by Region

**Site in O'Brien County** – Clean Line Energy, a Texas-based company, has selected O'Brien County as the site for a proposed \$250 million converter station to transport wind energy to Illinois. The company wants to deliver wind energy power 500 miles from western Iowa to the transmission grid in Morris, IL, where it can provide clean energy to as many as 1.4 million homes. Clean Line Energy Partners, which operates three other transmission lines in the southern United States, expects the project to cost about \$1.7 billion to construct, and could have a \$7 billion economic impact through construction jobs, manufacturing jobs and easement payments to landowners. Environmental and engineering studies are ongoing for potential routes for this major new electricity transmission line in Iowa. Upon completion of the studies and selection of a primary route corridor, Clean Line will hold public meetings in coordination with the Iowa Utilities Board. The utilities board has to approve the project before it can go forward.

**Milford** – After buying Global Electric Motorcar, of GEM, from the Chrysler Group in October 2011, Polaris Industries shifted manufacturing of the battery-powered vehicles from Fargo, N.D. to a portion of the old Stylecraft building in Milford. The plant currently employs 35 people with the potential to add more as production ramps up.

**Sheldon** – Rosenboom Machine & Tool added 100 new jobs in 2011. The northwest Iowa company makes custom hydraulic cylinders. About 60 of the new jobs were added in Spirit Lake, and 40 jobs were added to the Sheldon plant. The company has experienced a significant increase in business, including orders from a German company called HAWE for hydraulic cylinders to operate large solar panels in the desert.

## Region 5

**Fort Dodge** – Cargill is planning to spend \$200 million to expand and retrofit their corn processing facility in Fort Dodge. The facility will eventually employ up to 200 workers, and is scheduled to open in the fourth quarter of 2013.

**Fort Dodge** – CJ BIO America, a South Korean company, broke ground on May 14, 2012 on a \$320 million lysine production facility at the

# Economic Development Initiatives by Region

North Central Ag Industrial Park west of Fort Dodge. The new plant will produce more than 100,000 metric tons of amino acids annually to supplement animal feeds. CJ is expected to create more than 170 jobs by early 2014. For more than five decades, CJ has maintained a reputation as a leading food and consumer product manufacturer in The Republic of Korea.

## **Region 6**

**Eldora** — Agricultural Machinery Exchange has acquired two buildings with over 100,000 square feet of space in the city of Eldora's industrial park. The project represents a capital investment of over \$2 million. The start-up company will remanufacture agricultural equipment such as planters, tractors and combines mostly for foreign markets. Nineteen new jobs will be created.

**Grinnell** — Jeld-Wen, a manufacturer of windows and doors, plans to add about 25 production workers to its second and third shifts during the summer of 2012.

**Marshalltown** — JBS Swift plans to add 40 jobs in 2012.

**Marshalltown** — The new Menards store opened on April 17, 2012. The store will feature more than 200,000 square feet and carry name brand appliances, pet products, lawn and garden supplies and groceries. The store has approximately 150 workers.

**Montezuma** — Brownells, Inc., in Montezuma is planning to expand at a site closer to Interstate 80 at Grinnell. The company started the process of acquiring land north of I-80 for a 200,000-square-foot warehouse and distribution center. An Iowa-based company for more than 70 years, the family-owned company employs nearly 300 workers. Brownells is considered one of the world's largest suppliers of firearms accessories, ammunition and gunsmithing tools. The expansion is expected to add 85 to 100 new jobs, and could be open as soon as September 2013.

**Tama** — Plans are still underway to reopen the beef slaughtering plant in Tama. Iowa Premium Beef acquired the former Iowa Quality Beef plant, which closed in 2004. Iowa Premium will be a custom processor and not compete with major packers. The facility will

slaughter cattle for producers who sell their own branded beef. Iowa Premium also intends to buy cattle and market its own beef. Company officials originally estimated the plant would process 800 cattle a day and employ 350 people when fully operational.

### **Region 7**

**Cedar Falls** — DISTek Integration Inc., a company that started as a one-person engineering shop in St. Louis, now employs 85, including 65 in Cedar Falls. The company experienced growth in 2012 with about 12 percent more employees and 15 percent more in revenue. DISTek, which will mark its 20th anniversary this year, does embedded software, model-based software design, automated testing and other engineering processes.

**Cedar Falls** — Blackhawk Engineering Inc., expanded its manufacturing plant in the Cedar Falls Industrial Park in 2011, is looking to fill 25 positions. The company, currently employs 145 workers and has openings for operator of computer numerically controlled and coordinate measuring machines, forklifts and utilities; manufacturing and embedded software engineers; and electronics technicians.

**Waterloo** — Deere & Company will boost capacity by 10 percent at its Waterloo factory that produces large farm tractors. The company plans to spend \$70 million on the project, which should be complete by mid-2013.

**Waverly** — GMT Corporation is currently expanding on a 15-acre site in the Waverly Business Park. The family-owned company specializes in machining large iron castings and fabrication of large steel assemblies. Its customers include John Deere, Caterpillar, FMC, Terex and Lockheed Martin. The project includes a new 46,000-square-foot building and the purchase of up to \$25 million in new machinery and equipment for a total capital investment of \$29.8 million. The project will create 34 new jobs.

**Waverly** — Terex Cranes has added a second shift due to a crane line that was moved from the southern U.S. to Waverly, also the company's global accounting division was moved from Connecticut to Waverly. These changes have added about 35 to 50 jobs to the Waverly operation.

## Economic Development Initiatives by Region

# Economic Development Initiatives by Region

## Region 8

**Carroll** — The Graphic Edge will expand again in 2012. The company estimates sales will drive the need for an additional 50 employees. The custom screen printing company, serves educational institutions and club teams with name brand custom logo apparel.

**Denison** — A new Wal-Mart store will be opening in Denison in July 2012. The store is expected to have about 100 employees.

**Lake View** — EVAPCO, a worldwide producer of industrial refrigeration equipment, is currently investing in a \$2.7 million plant expansion that is scheduled for completion in October 2012. The project is expected to create 40-50 new jobs.

## Region 9

**Bettendorf** — LEDs America plans to move LED light manufacturing from China to the I-74 Industrial Park in Bettendorf. The \$10 million project would bring 132 jobs with a starting wage of about \$16.97 an hour, and be the first development in the I-74 Technology Park, located northwest of Tanglefoot Lane and Utica Ridge Road. LEDs America manufactures the Led-O line of LED lights, which are designed to replace florescent bulbs.

**Davenport** — Alcoa Inc. will invest \$300 million to expand and add 150 jobs to its Davenport plant to meet the growing demand from the automotive industry, as automakers work to meet federal guidelines for increasing gas mileage and lowering emissions. The Iowa Economic Development Authority awarded \$3 million in incentives to the manufacturer for the project.

**Muscatine** — The Hon Company will add 90-100 production jobs in Muscatine to perform work now being done at the company's Cedartown, GA., plant. HNI Corp., Hon's parent company, already employs about 3,000 people in Muscatine and about 3,500 in Iowa. Some temporary workers will be made permanent.

## Region 10

**Amana** — Whirlpool Corp. plans to add 250 workers at its refrigerator plant in Middle Amana during the first three months of 2012 and recall all laid-off workers effective January 3rd. The plant will also add

a third production shift during first quarter 2012. The factory makes refrigerators with bottom mounted freezer compartments, which have been a growth area over the past decade.

**Cedar Rapids** — GoDaddy Software Inc. announced plans to hire about 350 new employees across America, with about 100 positions landing in the Corridor building. The Hiawatha facility currently holds about 300 workers and the jobs being added will mostly be customer care positions. However, GoDaddy will be adding several corporate positions as well.

**Coralville** — GEICO plans to hire around 50 employees at its customer service department in Coralville. GEICO is a member of the Berkshire Hathaway family of companies and is the third largest private passenger auto insurer in the United States. The Coralville office continues to grow, and is currently employing around 350 associates.

## Region 11

**Ames** — Laboratorios Hipra, a Spanish company that manufactures animal vaccines plans to build its first U.S. plant in Ames at the university's research park. Ames is a great location because of its proximity to Iowa State University. The plant would be in operation by 2014 and employ 60 workers.

**Ankeny** — Deere and Company confirmed plans in December to construct a new 300,000 square foot building for product assembly in Ankeny and will also retain 400 jobs in Ankeny. The company currently employs about 1,900 people at the John Deere Des Moines Works in Ankeny and has added nearly 500 positions in the last 24 months.

**Dallas Center** — Pioneer Hi-Bred is expanding its seed research in central Iowa and announced plans for a new research facility in Dallas Center. The company will support corn breeding, soybean and corn product testing and help farmers in western and central Iowa, eastern Nebraska, and northwest Missouri. The facility is the latest in a series of projects by Pioneer, including a \$40 million research facility in Johnston that opened in April 2012, which is expected to create 400 jobs.

# Economic Development Initiatives by Region

# Economic Development Initiatives by Region

## Region 12

**LeMars** — IML Container Iowa invested \$11 million in constructing and outfitting an expansion to its plant that will create 29 new full-time jobs. The 46,500-square-foot addition nearly doubles the warehouse and production space as well as the current number of employees the company has. The \$11 million investment includes purchasing more injection molding production machines to increase the plant's capacity. IML Container, a plastic injection molding with in-mold labeling (IML) company, has been in Le Mars for nearly five years, making millions of plastic containers for ice cream, butter and other products.

**Sioux City** — Aviation Consultation Expert Solutions (ACES), an aircraft maintenance company has announced plans to lease space at the Sioux Gateway Airport, creating as many as 50 jobs in the Sioux City area. The newly formed Iowa company plans to lease space in a hangar at the airport and hire aviation mechanics to serve regional and commuter passenger jets. Sioux Gateway officials said the new aircraft maintenance facility would help bring added business to the airport, from increased landing fees to higher aviation fuel sales.

**Sioux City** — First Administrators Inc., a third party health benefits administrator is bringing up to 45 additional jobs to Sioux City. First Administrators plans to close its Rapid City, SD office by summer and transfer most of those positions to the Sioux City offices. The Sioux City office, which currently has an estimated 50+ employees, will add a variety of white collar positions in areas that include administration, customer service and claims processing.

## Region 13

**Council Bluffs** — The T.J. Maxx at Metro Crossing in Council Bluffs opened October 9, 2011. The 25,160 square foot retail store added about 60 full-time & part-time jobs to the area. With nearly 900 stores nationwide, T.J. Maxx sells brand-name family apparel and other merchandise at discount prices. In celebration of its new Council Bluffs location, T.J. Maxx contributed to the community by giving \$5,000 to the Micah House shelter.

# Economic Development Initiatives by Region

**Council Bluffs** — Plumrose USA announced in November 2011 that it would construct a state-of-the-art, LEED certified facility in Council Bluffs with a capital investment of \$70 million. The new facility will be operational in October 2012. As many as 100 jobs could be created at the cold cut slicing facility.

**Underwood** — The snack company, Link Snacks Inc., has announced plans to build a distribution center in Underwood that will create 131 jobs. Link Snacks is a meat snack manufacturer that sells products in more than 40 countries. The company is getting financial assistance and tax incentives to acquire a building in Underwood to establish its second distribution center in Iowa. Link Snacks is investing more than \$9 million in the project.

## Region 14

**Osceola** — Work was completed in December on the world's largest Turkey Hatchery by Valley of the Moon. This \$15 million dollar facility has resulted in the planned creation of 50 new jobs. Completed in November 2011, the Valley of the Moon Commercial Poults hatchery in Osceola, Iowa is the largest turkey incubation and hatching facility in the world. This 87,000 square foot building has an egg setting capacity of 50 million eggs per year and can hatch approximately 800,000 turkey poults per week.

**Osceola** — Lakeside Casino has added 90 new hotel rooms, an amphitheater, a new indoor/outdoor pool, and new QSR and a Pilot Travel plaza. The expansion will result in roughly 40 new jobs and a capital investment of \$10 million. A ribbon-cutting ceremony was held for the opening of a new 90-room hotel addition featuring a saltwater pool and hot tub. With the first phase of construction in completion, the existing 60 original hotel rooms were closed to begin renovations. The second phase of construction is scheduled to be finished by September 2012. It will include an 800-seat amphitheater along West Lake and quick-serve restaurant. Once the entire project is finished, there will be a total of 150 hotel rooms.

**Red Oak** — DirecTV has opened a dispatch center at Red Oak, Iowa, moving its operations from Stanton, Iowa, while adding

# Economic Development Initiatives by Region

about 70 more employees. DirecTV said the center serves as the connection between customers and technicians who work on direct TV installations. The center expects to hire more as its business expands and will eventually employ about 150 people.

## **Region 15**

**Centerville** — Lee Container started producing blow molded bottles in 1989 after acquiring the blow molding assets of Brockway Standard Company. The company has grown from 4 production lines to 29 lines. The company expanded its Centerville Iowa plant to include 55 new jobs. Lee Container is headquartered in Homerville, Georgia and is a plastic bottle manufacturer for agricultural chemicals, oil, and pet products.

**Fairfield** — Consolidation of Harper Brush Works distribution facilities is expected to bring 25-30 jobs to the company's distribution facility in Fairfield. The expansion is contingent upon a state and local incentive package that has to be approved by Iowa Economic Development Authority and the city of Fairfield. The company manufactures brooms, brushes, and other handheld cleaning products.

**Moulton** — Midwest Teleservices International is a telecommunications company based in North Dakota that provides contact center solutions for companies of all sizes. This is a new business in Moulton that provides 20 jobs and plans to add 50 more. This is MTI's first location in Iowa. Its original Mohall ND site started with 15 employees doing inbound calling. Now, MTI has about 400 employees at its many locations.

## **Region 16**

**Burlington** — Case New Holland, located in Burlington, and owned by the Fiat group/Italy, is embarking on a significant expansion that will add several agricultural equipment lines to its current facility. The proposed new product lines would include laser cutting, welding, paint and assembly, and will add 230-400 new jobs. This project will be completed in phases throughout 2012 and 2013.

**Burlington** — Winegard Company recently revealed plans at the

Fairway Center. The company plans to turn the former Montgomery Ward building into a light manufacturing facility where a few existing products and about six new products would be manufactured. Among the new products to be manufactured will be Cio-TV (a rear-seat entertainment device), satellite products for recreational vehicles, satellite antennas for SUVs and minivans and WiFi antennas for home use. The expansion likely will add at least 71 jobs, and inject about \$15 million in capital investment into the community.

**Fort Madison** — Pinnacle Foods Group LLC opened a 17,000 square foot expansion to their Fort Madison canned meat factory in January 2012. The expansion includes new production and packaging lines for the company's Nalley chili and Brook's bean brands. Pinnacle Foods invested \$20 million on upgrades to the facility and infrastructure and installed new manufacturing equipment. The expansion will bring 65 new jobs to the Fort Madison area.

**Wever** — A \$1.3 billion fertilizer plant proposed by an Egyptian-based company would be the largest private investment in the state's history. Iowa Fertilizer Company LLC, a unit of Cairo, Egypt-based Orsacom, wants to produce urea ammonia nitrate, diesel exhaust fluid, and potentially urea at a site in Lee County halfway between Fort Madison and Burlington. The company's fertilizer would be distributed in Iowa, Illinois and Wisconsin, replacing fertilizer that is now imported. The new business would add about 165 jobs and another 1,500 to 2,000 construction jobs would be needed to for the construction project on a 300-acre site near Wever. The company plans to start production in the late fall of 2014.

## Economic Development Initiatives by Region



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# NOTES





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