Message from the Labor Market Information Director

This year marks the tenth anniversary of the Great Recession ending. Although challenges remained after the official end, Iowa has seen unparalleled growth over the past several years and has much to be proud of, including an unemployment rate for 2018 that tied an all-time low, wages that continue to increase for workers, and despite dropping labor for participation rates, Iowa’s businesses are still expanding their payrolls. This has been especially true of our state’s manufacturers which added jobs at a rapid pace this past year and continue to fuel economic growth in our State.

Even so, challenges remain on the horizon that must be addressed, and meeting the skilled workforce needs has been a priority within the executive branch. This lead to the creation of the Future Ready Iowa Act. This initiative will not only help build Iowa’s talent pipeline, it will also create an environment where 70 percent of Iowans in the workforce will attain education or training beyond high school by the year 2025. I would encourage anyone interested in learning more about educational opportunities to visit www.futurereadyiowa.gov and explore the many benefits that might be available to them.

Lastly, our Labor Market Information Division will continue to provide timely data through innovative publications and visualizations you will not find in any other state. We value input from our data users and are always happy assist in finding the best possible information to meet their needs. For more information on our state’s labor market information, including employment, wages, careers, or other research, please visit www.iowalmi.gov.

Sincerely,

Ryan West
Deputy Director of Iowa Workforce Development and
Labor Market Information Director
Iowa Workforce Development
Executive Summary

- The recession ended almost ten years ago. Over the past decade, the country has seen growth of varying degrees. Iowa is no exception as firms continue to expand payrolls, even as the labor force strains. In 2018, business establishments again showed signs of improvement and even renewed optimism, by adding 11,200 jobs to their average payrolls. From a household perspective, the state’s unemployment rate dropped down to a historically low 2.5 percent. There has been some decline in the labor force participation rate over the past few years, which is not uncommon when the economy is expanding and fears of contraction are low; however, this can put a hamper on the labor force and potentially drive up wages due to tight labor force conditions. Since 2008, the participation rate has steadily trended down 4.0 percentage points and rests at 68.4 percent in 2018.

Other signs indicating growth within the economy include:

- Gross domestic product (GDP) advancing to $190.2 billion in 2018, up $7.2 billion versus 2017 and a gain of 3.9 percent.
- Per capita income increased by $1,730 on average, lifting the new total to $48,823 per person. Percentage wise, this gain was also substantial versus prior years.
- Exports fared well and increased by $6 billion over 2017. This was in spite of speculative fears that a global trade war could decrease demand for Iowa products.

- Manufacturing continues to be the driving factor within the state’s economy. In 2018, Iowa’s businesses added 11,200 jobs to their payrolls and 7,000 of those stemmed from the state’s factories. It has been historically common for manufacturing to steer the state’s economy given the large percentage of nonfarm jobs that are in this sector.

- Iowa’s unemployment rate continued to drop in 2018. The year ended at 2.4 percent, tying the historical series low. The statewide annual average unemployment rate fell from 3.1 percent in 2017 to 2.5 percent in 2018. This is the ninth consecutive year that the statewide annual average rate has decreased. The U.S. unemployment rate for 2018 also showed improvement, dropping to 3.9 percent from 4.4 percent for the prior year. Hawaii had the lowest annual jobless rate among the states at 2.4 percent. Iowa ranked second (tied with New Hampshire) and Alaska had the highest unemployment rate at 6.6 percent.

- Men accounted for 53.2 percent of the unemployed compared to 46.8 percent for women.
- Groups that experienced higher-than-average unemployment rates were:
  - Black or African American (9.3 percent)
  - Youth 16-19 years old (6.3 percent)
  - Hispanics (4.9 percent)
  - Workers with less than a high school diploma (4.2 percent)

- Among Metropolitan Areas, Davenport-Moline-Rock Island experienced the highest unemployment rate for 2018 at 4.2 percent; Ames had the lowest rate at 1.6 percent.
Iowa’s total occupational employment is expected to increase by 8.0 percent (surpassing the national rate of 7.4 percent) between 2016 and 2026, resulting in 154,730 new jobs. The growth rate of employment has steadily declined since the 2008 recession and currently sits at a ten-year low. Factors such as an aging population, a low rate of population growth, and a stagnant labor force participation rate have hampered the growth of Iowa’s labor force.

Occupational growth rates for science, technology, engineering, and mathematics (STEM) and service-providing jobs are generally expected to exceed those for non-STEM and goods-producing occupations. Major occupational groups expected to grow faster for 2016–26 than the state annual average of 0.8 percent are business and financial operations; computer and mathematical operations; and architecture and engineering. Iowa employers currently face economic (i.e., trade) uncertainty and an unpredictable business cycle. Low unemployment and skill shortages add to the challenges confronting employers competing for capital (i.e., labor). Because of this current uncertainty, job growth projections indicate a more restrained view even though all occupational groups project growth (albeit by varying degree).

Very few sectors have seen their business production process change over the past decade as much as Retail Trade. Traditionally known for brick and mortar buildings and vibrant shopping malls, consumer preferences have moved the industry towards online retailers. This trend has led to many well-known establishments shutting their doors as they have struggled to adjust to the changing climate. Employment in the state’s Retail Trade sector has decreased in each of the past two years and has lost a total of 3,800 retail jobs since 2016. Prior to the last two years, Iowa hadn’t experienced Retail Trade job losses in any year since 2010.

The aggregate statewide industry employment for all wage and salaried workers, employees in natural resources and mining, and the self-employed is projected to gain 22,325 net jobs from 2018–20, an increase of 1.3 percent. The sectors adding the most jobs include:

- Health care and social assistance (+5,490 jobs) with those subsectors adding the most jobs being hospitals (+1,565), nursing and residential care facilities (+1,075), and social assistance (+890).
- Professional and business services (+3,710 jobs). The largest gains will stem from the professional, scientific, and technical services sector (+1,810 jobs).

Losses will be limited to two sectors: information services (-355) and government (-160).

Longitudinal Employer-Household Dynamics (LEHD) data provided by the U.S. Census Bureau represents a merging of local Labor Market Information data (LMI) along with Census Bureau information to provide data not otherwise available through typical wage and employment reports. Using this data, we are able to determine that 51.3 percent of employed Iowans had obtained some education beyond high school and 22.6 percent have a bachelor’s degree or higher. Furthermore, this data gathers other demographic insights into our economy and determines the gender compositions of industries.

For example:

- Mining has the highest percentage of male employment of any sector with 89.1 percent. This is followed by Construction (87.6 percent) and Utilities (76.5 percent).
- Healthcare and Social Assistance has the highest percentage of female employment in their workforce with 82.0 percent. Education is a distant second (69.1 percent).
2018 Overview of the Iowa Economy

By James Morris

Most Signs Reflect Positivity in the State’s Economy

The national recession ended almost ten years ago. Over the past decade, the country has seen growth of varying degrees. Iowa is no exception, firms continue to expand payrolls even as the labor force strains.

In 2018, business establishments again showed signs of improvement, and even renewed optimism, by adding 11,200 jobs to their average payrolls (Current Employment Statistics (CES), 2019). This was noticeably better than the anemic growth of 2017, which added only 2,000 jobs annually. Manufacturing, which has been a driving force within the state’s economy, has shown signs of resurgence and followed gains of 2,000 jobs in 2017 with a huge advancement of 7,000 jobs in 2018. The majority of the gain was in durable goods factories and includes finished items related to big-ticket item sales, such as heavy equipment, machinery, and wood products.

Overall, private industry firms expanded payrolls following weak annual growth over the past few years, and, discounting outlier years of 2015 and 2016, much of this movement was heavily influenced by the resurging manufacturing sector illustrated by the black line below.

Private Industry Growth vs. Manufacturing Growth, 2000–18

Source: Current Employment Statistics Program (CES), Bureau of Labor Statistics, BLS
From a household perspective, recent stagnation in hiring from Iowa's business establishments has not equated to Iowans having trouble finding work, much less an increase in the unemployment rate. The unemployment rate has steadily trended down since the post-recession peak of 2010. The underlying bars in the chart below indicate the labor force participation rate has trended down also. This could be a sign that there is some flexibility, or even slack, in the labor force that reduced job creation will not immediately translate to increasing unemployment rates. Some of this trend is due to an aging workforce leaving the job market and allowing room for job growth to be reduced without having any upward pressure on the unemployment rate.

Unemployment insurance statistics also reflect a strong, stable job market. The average duration of weeks paid for unemployment insurance claims decreased to 12.8 weeks on average following a recent peak of 13.4 last year. Additionally, the regular benefits paid dropped to $364.7 million, the lowest level since the pre-recession year of 2007. The total number of estimated unemployed Iowans bottomed to 42,600 jobs in 2018, a level not seen since 2000.

**Other Indicators Present Mixed Results**

Aside from the advancing payrolls and labor force, the Iowa economy looked improved this past year with other segments showing progress:

- Gross domestic product (GDP) increased to $190.2 billion, up from $183.0 billion in 2017. This gain of $7.2 billion over the prior year was large historically and, at 3.9 percent, a sizable percentage increase as well (U.S. Bureau of Economic Analysis, 2019).
- Per capita personal income increased by $1,730 on average in 2018, lifting the new average to $48,823. This annual gain was substantial relative to the prior few years.
Exports also fared well, gaining $6 billion over 2017. There was some preliminary fear that global trade wars could lower demand for the state’s export totals given that many of Iowa’s output products were subject to tariffs. Preliminary export data for 2018 shows this did not materialize.

On the other hand, consumers showed some increasing signs of prudence this past year:

- Vehicle registrations dipped 3,400 over the prior year. This recent slowing in auto sales mirrors the rest of the nation as consumers reduce the number of trips taken overall and are increasingly sharing rides through online applications. This decline may also be a symptom of increasing options for online shopping and delivery.
- New housing units authorized tapered down in 2018. This was the second consecutive loss following a recent high in 2016 of 14,317 units. Overall, the number of new homes sold dropped from 41,755 in 2017 to 41,387 in 2018 (Iowa Association of Realtors, 2019).

One positive from the housing data in 2018 was the growth in median sale prices versus the prior year; overall, the median sale price increased by 3.9 percent for homes sold in 2018. Home sales have historically been a good indicator of big-ticket sales and a boon to the economy when they are rising due to the associated increase in related activities such as finance, construction, and retail trade.

### Investing in a Future Workforce

Advancing the quality of Iowa’s workforce has been one of the goals for Governor Kim Reynolds. This entails increased access to education, career opportunities, higher wages and a skilled workforce. To this end, Governor Reynolds signed into law the Future Ready Iowa Act, to build Iowa’s talent pipeline. The vision is for 70 percent of Iowans in the workforce to have education or training beyond high school by the year 2025.

The “Future Ready Iowa” initiative will assist high school graduates and adults pursuing further education, provide access to opportunities that might not otherwise be available, and ultimately lead to a higher quality of life.

This legislation earmarks $16 million in funding for three programs:

- $13 million for Last-Dollar Scholarships which will help Iowans achieve education beyond high school for designated programs that will help students qualify for high-demand jobs. These programs may be up to two years in length.
- $1 million for a grant program that will help provide stipends to students who left college after earning at least half the credits for a four-year degree in a high-demand field and who a returning to complete their degree.
- $1.2 million for the Future Ready Iowa Innovation Fund to help foster collaboration and carry out new, creative initiatives to address lingering workforce issues.

Upgrading the state’s existing labor force may ultimately be seen as an investment as it should help retain, and even attract higher paying technical industries to the area and inject more money into the local economy. Additional information regarding Future Ready Iowa can be found at: [https://www.futurereadyiowa.gov](https://www.futurereadyiowa.gov).

### Emerging Trends in the Economy for 2019

Through the first few months of 2019, there are no recent signs of either large-scale layoffs or increasing unemployment rates. This is in contrast to the increasing fears rising throughout the rest of the nation that a downturn is expected soon, and even inevitable given the length of the current economic expansion. One thing that has been true, however, is the pace of hiring within Iowa’s establishments has shown preliminary signs of slowing. Some of this may be due to forecast demand for big-ticket purchases, such as automobiles or even housing, to waver due to uncertainty. The chart on the following page illustrates at least some dwindling in sales over the past year for housing and new motor vehicles.

Recent developments in global trade negotiations may have also started to dampen expectations on future orders from producers. While layoffs haven’t been evident through the first half of 2019, there has been some “cooling” in the pace at which jobs have been added within Iowa’s factories. Future negotiations will be closely watched as both input products and raw materials produced in the state have not been spared from these talks. Iowa total nonfarm employment growth halted in January of 2019, then pared jobs in February and March.
Another factor playing into the state’s economy was record flooding during the spring of 2019. While this historic flooding no doubt will have a lasting impact on the economy, tracking the true impact on the job market and the overall economy will take several quarters before the lingering effects can be accurately measured. Both establishment and household survey data show relatively little movement within the jobs report and it is not uncommon for workers to either continue being paid for cleanup or quickly find another job and not be included as unemployed within the statewide household survey. Ultimate effects on the state’s economy may be better tracked looking at GDP growth or the overall migration of industry employment within affected areas. This tracking will no doubt need to be a long-term project.

New Housing Units and Vehicle Registrations in Iowa, 2014–18

![Graph showing New Housing Units and Vehicle Registrations in Iowa, 2014–18](image-url)

*Source: Iowa Department of Transportation (DOT); U.S. Census Bureau*

**Bibliography**


State and Local Labor Force Trends

By Kris Henze

Iowa's unemployment rate continued to drop in 2018. The year ended at 2.4 percent, tying the historical series low. The statewide annual average unemployment rate fell from 3.1 percent in 2017 to 2.5 percent in 2018. This is the ninth consecutive year that the statewide annual average rate has decreased. The U.S. unemployment rate for 2018 also showed improvement, dropping to 3.9 percent from 4.4 percent for the prior year. Hawaii had the lowest jobless rate among the states at 2.4 percent. Iowa ranked second (tied with New Hampshire) and Alaska had the highest unemployment rate at 6.6 percent.1

Iowa and U.S. Unemployment Rates, 2014–18

Demographics of Iowa’s Unemployment

The number of unemployed persons in Iowa averaged 42,600 in 2018, down from 52,000 in 2017. Men accounted for 53.2 percent of the unemployed compared to 46.8 percent for women. Minorities and youth continued to experience higher rates of unemployment: Black or African American (9.3 percent); youth, 16 to 19 years (6.3 percent); and Hispanic (4.9 percent). Further, workers with less education experienced a higher unemployment rate than more educated members of the labor force: those with less than a high school diploma (4.2 percent); high school graduates with no college (2.8 percent); some college or associate’s degree (2.0 percent); and Bachelor’s degree and higher (1.2 percent). Only 4.0 percent of unemployed Iowans served in the armed forces. Of the total number of unemployed over age 21, 31.0 percent have never been married, compared to 29.0 percent for married.

Unemployment Rates Improve in All Metropolitan Statistical Areas (MSAs)

Unemployment rates improved in all of Iowa’s MSAs in 2018. Likewise, county unemployment rates dropped in 98 out of 99 Iowa counties. The Ames MSA had the lowest unemployment rate of Iowa’s nine MSAs, at 1.6 percent.
Conversely, the Davenport-Moline-Rock Island MSA had the highest jobless rate among major labor market areas, at 4.2 percent. Jobless rates for all 99 counties ranged from a low of 1.5 percent in Lyon County to a high of 4.4 percent in Marshall County.

### Iowa Metropolitan Statistical Area Labor Force Summary, 2018 Annual Averages

<table>
<thead>
<tr>
<th>Metropolitan Statistical Area (MSA)</th>
<th>Labor Force</th>
<th>Employed</th>
<th>Unemployed</th>
<th>Unemployment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ames</td>
<td>57,700</td>
<td>56,800</td>
<td>900</td>
<td>2.0%</td>
</tr>
<tr>
<td>Cedar Rapids</td>
<td>143,400</td>
<td>139,400</td>
<td>4,000</td>
<td>3.4%</td>
</tr>
<tr>
<td>Davenport-Moline-Rock Island*</td>
<td>191,900</td>
<td>183,900</td>
<td>8,000</td>
<td>4.3%</td>
</tr>
<tr>
<td>Scott County</td>
<td>86,900</td>
<td>84,300</td>
<td>2,600</td>
<td>3.6%</td>
</tr>
<tr>
<td>Des Moines-West Des Moines</td>
<td>353,600</td>
<td>345,000</td>
<td>8,600</td>
<td>2.9%</td>
</tr>
<tr>
<td>Dubuque</td>
<td>55,200</td>
<td>53,900</td>
<td>1,300</td>
<td>3.0%</td>
</tr>
<tr>
<td>Iowa City</td>
<td>97,300</td>
<td>95,400</td>
<td>1,900</td>
<td>2.5%</td>
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<tr>
<td>Omaha-Council Bluffs*</td>
<td>505,200</td>
<td>490,800</td>
<td>14,500</td>
<td>3.0%</td>
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<tr>
<td>Harrison County</td>
<td>7,300</td>
<td>7,100</td>
<td>200</td>
<td>2.7%</td>
</tr>
<tr>
<td>Mills County</td>
<td>7,300</td>
<td>7,200</td>
<td>100</td>
<td>2.8%</td>
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<tr>
<td>Pottawattamie County</td>
<td>47,800</td>
<td>46,700</td>
<td>1,100</td>
<td>2.8%</td>
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<td>Sioux City*</td>
<td>91,900</td>
<td>89,500</td>
<td>2,400</td>
<td>3.2%</td>
</tr>
<tr>
<td>Woodbury and Plymouth Counties</td>
<td>69,900</td>
<td>68,300</td>
<td>1,600</td>
<td>3.0%</td>
</tr>
<tr>
<td>Waterloo-Cedar Falls</td>
<td>89,300</td>
<td>87,000</td>
<td>2,300</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

* MSA includes counties in a neighboring state.

Source: Iowa Workforce Development, Labor Market Information Division

### Average Unemployment Rate by County, 2018

Source: Iowa Workforce Development, Labor Market Information Division
Labor Force Participation Rates by Age

The labor force participation rate (LFPR) is the percentage of the civilian noninstitutional population 16 years and older that is working or actively looking for work. In 2018, Iowa tied with New Hampshire for the sixth highest labor force participation rate among states (68.4 percent). The figure below shows Iowa’s the LFPR by age group. The lowest rate (22.7 percent) occurs in the 65 years and older group, likely due to the majority of them being retired and not seeking a job. The 16 to 19 year olds are the next lowest at 54.1 percent. The reason for this is likely because young adults tend to delay entering the workforce in order to further their education. The age ranges from 25 to 54 have the highest participation with just under 90 percent in each group.

Iowa Labor Force Participation Rate by Age, 2018

Source: U.S. Census Bureau, Current Population Survey

Bibliography

Total Nonfarm Employment Overview

By Dennis Schwartz

The Year at a Glance

Iowa’s employment level continued to expand through 2018. This marks eight consecutive years of expansion in total nonfarm employment. The rate of expansion rebounded some following five consecutive years of decline. The 2018 seasonally adjusted annual average of 1,584,200 employees is 11,200 (0.7 percent) above the average for 2017.

Iowa Total Nonfarm Employment, 2003–18

When compared to surrounding states, Iowa’s rate of employment growth was slightly below the 2018 average of 0.8 percent, trailing all but two states, Nebraska (0.5 percent) and Missouri (0.5 percent). Prior to 2018, Iowa’s employment growth rate had trailed the six surrounding states for three consecutive years. In contrast, of the surrounding states, only Minnesota experienced a greater rate of growth than Iowa in 2013. South Dakota led the pack in 2018 with a growth rate of 1.2 percent, as seen in the figure below. Iowa and four of the surrounding states (Illinois, Nebraska, South Dakota and Wisconsin) saw improvement in their employment growth rates from 2017 to 2018. Iowa’s growth was 0.6 percent greater than the 2017 growth rate but was second to South Dakota, which enjoyed growth 0.7 percent above the previous year’s rate.

Iowa and Surrounding States—Annual Percent Change (2017–18)

Source: U.S. Department of Labor, Bureau of Labor Statistics
The gap between Iowa’s annual employment growth rate and that of the U.S. had steadily increased from 2011–17. Iowa’s growth rate from 2010–11 was nearly identical to the U.S. growth rate. From 2016–17, however, Iowa’s growth rate was 0.1 percent versus the national rate of 1.6 percent, a difference of 1.5 percent. In 2018, Iowa gained some ground on the national rate, narrowing the difference to roughly 1.0 percent. This can be seen on the graph below.

**Annual Employment Growth Rate, Iowa and U.S.**

![Graph showing annual employment growth rate for Iowa and the U.S. from 2009-10 to 2017-18.](image)

**Source:** U.S. Department of Labor, Bureau of Labor Statistics

**Nonfarm Employment Industry Movement**

The majority of the state’s super-sectors experienced gains in nonfarm employment from 2017–18. Industries adding jobs included: mining and logging, construction, manufacturing, financial activities, professional and business services, education and health services, leisure and hospitality, and government.

Manufacturing led all super-sectors with a 3.2 percent rate of growth. This is the sector’s highest annual employment growth rate in recent history (dating to 2003) and the second consecutive year of growth. Durable goods manufacturing and non-durable goods manufacturing each contributed to the employment increase with 3.7 percent and 2.6 percent gains, respectively. This is the first annual gain in durable goods manufacturing since 2014. The construction super-sector gained employment at a rate of 1.6 percent. This follows a substantial loss the previous year (-5.8 percent). According to Iowa Workforce Development’s Occupational Employment Projections, occupations within the construction sector are projected to experience an annual growth rate ranging from 0.4 percent (highway maintenance workers) to 2.2 percent (helpers – pipe-layers, plumbers, pipefitters and steamfitters).

Retail trade has shed jobs in each of the last two years with a 0.5 percent drop in 2017 and a 1.6 percent decline in 2018. This trend can be seen on the graph on the following page. Nationally, the retail trade industry experienced its first contraction since 2010 (-0.1 percent). This sector has been the subject of many news articles of late due to the perceived decline of the industry, particularly in “brick-and-mortar” stores. According to the U.S. Bureau of Labor Statistics data, the rate of growth in the industry has continued to decline each year since 2014. Retail trade in sporting goods, hobby, book and music stores has been hit particularly hard with three consecutive years of progressively worse negative growth (2016, -0.4 percent; 2017, -2.4 percent; and 2018, -4.7 percent).
# IOWA'S WORKFORCE AND THE ECONOMY

## Iowa Retail Trade Employment, 2017–18

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
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</thead>
<tbody>
<tr>
<td>176.5</td>
<td>177.5</td>
<td>178.5</td>
<td>179.5</td>
<td>180.5</td>
<td>181.5</td>
<td>182.5</td>
<td>183.5</td>
<td>176.5</td>
<td>177.5</td>
<td>178.5</td>
<td>179.5</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Labor, Bureau of Labor Statistics

- **2017:** -2.5%  
- **2018:** -2.0%

## Other Economic Indicators

Grain prices changed very little from 2017, based on Iowa State University Extension and Outreach data (annual averages). The price Iowa farmers received for corn averaged $3.41 in 2018, up just $0.11 from 2017. This is the first year the price of corn has increased since 2012, when the price per bushel increased from $5.96 in 2011 to an all-time high of $6.67. The 2018 average price is down 48.9 percent from that high value. Soybeans value declined 34.8 percent over the same time period (2012–18) and 2.5 percent ($0.23) from 2017. The value is currently $9.05 per bushel (2018 average). Land values changed from a state average of $7,326 per acre in 2017 to $7,264 per acre in 2018 (all farmland). Land values have declined in four of the past five years.

According to the Iowa Association of Realtors, home sales in Iowa declined 0.9 percent from 2017–18. The number of closed sales ebbed from 41,755 in 2017 to 41,387 in 2018. The median sale price of homes, $161,000, represents an increase of 3.9 percent from 2017.

According to 2018 preliminary data from the U.S. Census Bureau Building Permits Survey, the total number of new, privately-owned housing units authorized in Iowa, including single and multiple unit structures, decreased 16.9 percent (2,353 units). This marks two consecutive years of decline in permits issued (all structures). The total value of permits issued decreased by 11.1 percent.

## Bibliography


Iowa’s Occupational Projections—Past, Present and Projected

By Brent Paulsen

Iowa’s total occupational employment is expected to increase by 8.0 percent (surpassing the national rate of 7.4 percent) between 2016 and 2026, resulting in 154,730 new jobs. The growth rate of employment has steadily declined since the 2008 recession and currently sits at a ten-year low. Factors such as an aging population, a low rate of population growth, and a stagnant labor force participation rate have hampered the growth of Iowa’s labor force. A review of past, present, and projected employment levels for occupational groups follows.

Occupational employment in Iowa for the period of 2006–16 showed the strongest growth in the Education (18.0 percent); Healthcare Practitioners (15.0 percent); Business and Financial Operations (14.0 percent); Farming, Fishing, and Forestry (72.0 percent); Computer & Mathematical (22.0 percent); Community & Social Services (19.0 percent); and Architecture & Engineering (13.0 percent) occupational groups. In sum, these groups added 61,595 jobs out of Iowa’s net occupational increase of 80,060 jobs (or 76.9 percent). Adding more than 10,000 jobs over the decade, as seen in the chart below, were Education (18,345) and Healthcare Practitioners (11,485). At the other end of the spectrum, four occupational groups accounting for job losses over the period were Arts, Design, Entertainment, Sports, and Media (-1,720); Sales and Related (-6,020); Construction and Extraction (-970); and Production (-6,750).

2006–16 Change in Occupational Group Employment by Number and Percent

Source: Iowa Workforce Development, Labor Market Information Division
The business community prefers certainty and stability in the marketplace when conducting long-term strategic planning and this includes the setting of employment levels. Iowa employers currently face economic (i.e., trade) uncertainty and an unpredictable business cycle. Low unemployment and skill shortages add to the challenges confronting employers competing for capital (i.e., labor). Because of this current uncertainty, as illustrated in the chart below, job growth projections for 2016 to 2026 indicate a more restrained view even though all occupational groups project growth (albeit by varying degree).

The growth rates for science, technology, engineering, and mathematics (STEM) and service-providing jobs are generally expected to exceed those for non-STEM and goods-producing occupations. Major occupational groups expected to grow faster for 2016–26 than the state annual average of 0.8 percent are Business and Financial Operations; Computer and Mathematical Operations; Architecture and Engineering; Life, Physical, and Social Science; Community and Social Services; Legal; Educational Instruction and Library; Healthcare Practitioners; Healthcare Support; Food Preparation and Serving Related; Building and Grounds Cleaning and Maintenance; Personal Care and Service; Construction and Extraction; Installation, Maintenance, and Repair; and Transportation and Material Moving.

### 2016–26 Occupational Group Projections by Number and Percent

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Office and Admin Support</td>
<td>10,490 (0.4%)</td>
<td></td>
</tr>
<tr>
<td>Sales and Related</td>
<td>11,135 (0.6%)</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>9,000 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>2,795 (0.2%)</td>
<td></td>
</tr>
<tr>
<td>Food Preparation and Serving Related</td>
<td>13,045 (0.9%)</td>
<td></td>
</tr>
<tr>
<td>Transportation and Material Moving</td>
<td>13,470 (1.0%)</td>
<td></td>
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<tr>
<td>Educational Instruction and Library</td>
<td>10,480 (0.9%)</td>
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<tr>
<td>Healthcare Practitionans</td>
<td>12,81 (1.4%)</td>
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<tr>
<td>Construction and Extraction</td>
<td>11,190 (1.3%)</td>
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<tr>
<td>Business and Financial Operations</td>
<td>10,960 (1.4%)</td>
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<tr>
<td>Installation, Maintenance, and Repair</td>
<td>6,890 (0.9%)</td>
<td></td>
</tr>
<tr>
<td>Building and Grounds Cleaning and Maintenance</td>
<td>8,285 (1.4%)</td>
<td></td>
</tr>
<tr>
<td>Personal Care and Service</td>
<td>7,800 (1.4%)</td>
<td></td>
</tr>
<tr>
<td>Healthcare Support</td>
<td>8,100 (1.7%)</td>
<td></td>
</tr>
<tr>
<td>Computer and Mathematical Operations</td>
<td>5,290 (1.5%)</td>
<td></td>
</tr>
<tr>
<td>Community and Social Services</td>
<td>4,885 (1.7%)</td>
<td></td>
</tr>
<tr>
<td>Arts, Design, Entertainment, Sports, and Media</td>
<td>1,635 (0.6%)</td>
<td></td>
</tr>
<tr>
<td>Protective Service</td>
<td>1,170 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Farming, Fishing, and Forestry</td>
<td>330 (0.2%)</td>
<td></td>
</tr>
<tr>
<td>Architecture and Engineering</td>
<td>2,455 (1.2%)</td>
<td></td>
</tr>
<tr>
<td>Life, Physical, and Social Science</td>
<td>1,44 (1.2%)</td>
<td></td>
</tr>
<tr>
<td>Legal</td>
<td>1,080 (1.1%)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Iowa Workforce Development, Labor Market Information Division

### Occupational Openings: New Growth Jobs and Separations

Projected occupational openings in Iowa for 2016–26 by new growth, exits, and transfers are quite varied. As shown in the illustration on the following page, more job openings are derived through transfers (i.e., workers exiting an occupation and transferring to a different occupation) than through exits (i.e., workers leaving an occupation and exiting the labor force entirely) or new growth. Management; Educational Instruction and Library; Healthcare Support; Healthcare Practitioners; and Personal Care are exceptions to this pattern. In many occupational groups, however, job openings via transfer are significantly greater than openings via exits or new growth.
2016–26 Exits, Transfers, and New Jobs by Occupational Group

Source: Iowa Workforce Development, Labor Market Information Division

Education

Another occupational outlook measure is the educational component. In many industries across Iowa, occupational growth is often dependent upon worker skills, training, and education levels. As the figure below illustrates, occupational growth is greatest with increased levels of education. In fact, nearly all occupations purporting some level of postsecondary education are increasing above 1.0 percent annually, whereas positions that require an education of some college or less are growing below 1.0 percent annually. Conversely, the final illustration shows that most of the employment growth is emanating from occupations characterized with less education.

2016–26 Annual Occupational Growth Rate by Education

Source: Iowa Workforce Development, Labor Market Information Division
2016–26 Annual Occupational Employment by Education

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
<td>3,479</td>
</tr>
<tr>
<td>High school diploma</td>
<td>4,193.5</td>
</tr>
<tr>
<td>Some college</td>
<td>236</td>
</tr>
<tr>
<td>Postsecondary nondegree</td>
<td>1,424.5</td>
</tr>
<tr>
<td>Associates</td>
<td>400.5</td>
</tr>
<tr>
<td>Bachelors</td>
<td>3,435</td>
</tr>
<tr>
<td>Masters</td>
<td>347</td>
</tr>
<tr>
<td>Doctoral or Professional</td>
<td>421.5</td>
</tr>
</tbody>
</table>

Source: Iowa Workforce Development, Labor Market Information Division

Bibliography

Sector Spotlight: Retail Trade

By Brad Frevert

Very few sectors have seen their business production process change over the past decade as Retail Trade. Traditionally known for brick and mortar buildings and vibrant shopping malls, consumer preferences have moved the industry more and more toward online retailers. Online shopping has led to many well-known establishments shutting their doors as they have struggled to adjust to the changing climate. Iowa has not bucked this national trend, as employment in the state’s Retail Trade sector has decreased in each of the past two years. Iowa has lost a total of 3,800 jobs since 2016. Prior to the last two years, Iowa hadn’t experienced Retail Trade job losses in any year since 2010. Despite the recent job losses, Retail Trade is still one of the largest employment sectors statewide, accounting for 178,845 jobs. Total annual average wages continue to increase, peaking at $27,248 in 2018. This represents a gain of $4,925 or 22.1 percent over a ten year period.

Statewide Retail Annual Average Employment and Wages, 2009–18

When considering retail trade, many people tend to include restaurants, hotels, and other service industries among retail establishments; however, these are included in the accommodations and food services and other services sectors, respectively. To better analyze this sector, it is very important to understand how retail trade establishments are classified according to the North American Industry Classification System (NAICS):

“Retail trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The retailing process is the final step in the distribution of merchandise; retailers are, therefore, organized to sell merchandise in small quantities to the general public. This sector comprises two main types of retailers: store and nonstore retailers. In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal or household consumption.”
Statewide Retail Trade Employment and Wage Trends

In 2018, Retail Trade averaged 178,845 (11.5 percent) jobs in the state. This ranked Retail Trade as the third-largest sector statewide, trailing only Healthcare and Social Assistance (224,139) and Manufacturing (222,624). Retail Trade, however, ranks first among all sectors in the number of establishments. Currently, there are 11,751 establishments in the Retail Trade sector in the state of Iowa. This is 1,088 more establishments than Healthcare and Social Assistance, which ranks second with 10,663. Construction (9,582); Professional, Scientific, and Technical Services (9,512); and Other Services (8,721) round out the top five sectors with the largest numbers of establishments.

By wage, Retail Trade ranks 18th among sectors in the state, with an annual average wage of $27,248. This is 69.3 percent less than Iowa’s highest sector annual average wage of $88,793 for employees in the Utilities sector. When compared to the statewide annual average wage of $47,509 for all sectors, Retail Trade’s average wage is 42.6 percent lower. In general, retail wages tend to be lower than most sectors, as the Retail Trade sector traditionally attracts younger, part-time, and new entrants into the workforce.

Statewide Employment and Wage Trends by Industry Sector, 2018

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Sector</th>
<th>Employment</th>
<th>Firms</th>
<th>Average Annual Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>62</td>
<td>Health Care &amp; Social Assistance</td>
<td>224,139</td>
<td>10,663</td>
<td>$45,685</td>
</tr>
<tr>
<td>31–33</td>
<td>Manufacturing</td>
<td>222,624</td>
<td>4,148</td>
<td>$60,249</td>
</tr>
<tr>
<td>44–45</td>
<td>Retail Trade</td>
<td>178,845</td>
<td>11,751</td>
<td>$27,248</td>
</tr>
<tr>
<td>61</td>
<td>Educational Services</td>
<td>151,508</td>
<td>2,792</td>
<td>$45,711</td>
</tr>
<tr>
<td>72</td>
<td>Accommodations &amp; Food Services</td>
<td>123,805</td>
<td>7,194</td>
<td>$16,722</td>
</tr>
<tr>
<td>52</td>
<td>Finance &amp; Insurance</td>
<td>94,573</td>
<td>6,717</td>
<td>$78,238</td>
</tr>
<tr>
<td>23</td>
<td>Construction</td>
<td>78,721</td>
<td>9,582</td>
<td>$57,342</td>
</tr>
<tr>
<td>56</td>
<td>Administrative &amp; Waste Services</td>
<td>68,820</td>
<td>5,446</td>
<td>$34,309</td>
</tr>
<tr>
<td>48–49</td>
<td>Transportation &amp; Warehousing</td>
<td>68,111</td>
<td>4,727</td>
<td>$47,133</td>
</tr>
<tr>
<td>92</td>
<td>Government</td>
<td>66,251</td>
<td>2,986</td>
<td>$50,861</td>
</tr>
<tr>
<td>42</td>
<td>Wholesale Trade</td>
<td>66,138</td>
<td>7,616</td>
<td>$65,773</td>
</tr>
<tr>
<td>54</td>
<td>Professional, Scientific &amp; Technical Services</td>
<td>53,915</td>
<td>9,512</td>
<td>$68,302</td>
</tr>
<tr>
<td>81</td>
<td>Other Services</td>
<td>42,853</td>
<td>8,721</td>
<td>$34,273</td>
</tr>
<tr>
<td>51</td>
<td>Information</td>
<td>22,419</td>
<td>1,803</td>
<td>$58,335</td>
</tr>
<tr>
<td>71</td>
<td>Arts &amp; Entertainment</td>
<td>21,630</td>
<td>1,523</td>
<td>$18,663</td>
</tr>
<tr>
<td>11</td>
<td>Natural Resources</td>
<td>20,640</td>
<td>2,638</td>
<td>$41,150</td>
</tr>
<tr>
<td>55</td>
<td>Management of Companies</td>
<td>19,552</td>
<td>971</td>
<td>$84,190</td>
</tr>
<tr>
<td>53</td>
<td>Real Estate &amp; Rental</td>
<td>14,890</td>
<td>3,534</td>
<td>$46,703</td>
</tr>
<tr>
<td>22</td>
<td>Utilities</td>
<td>8,013</td>
<td>416</td>
<td>$88,793</td>
</tr>
<tr>
<td>21</td>
<td>Mining</td>
<td>2,431</td>
<td>191</td>
<td>$58,564</td>
</tr>
</tbody>
</table>

Source: Iowa Workforce Development, Labor Market Information Division

Retail Trade Subsector Employment and Wage Trends

Retail Trade represents a wide variety of subsectors, specializing in many different types of merchandise. In 2018, Food and beverage stores employed more workers than any other subsector, with 40,269. This accounted for 22.5 percent of total sector employment. Along with Food and beverage stores, General merchandise stores (33,925); Motor vehicle and parts dealers (23,069); Gasoline stations (21,983); and Building materials and garden supply stores (15,799) represented 75.5 percent of total retail employment, compared to the 24.5 percent for the remaining seven subsectors. The subsector that employed the fewest jobs was Nonstore retailers (2,939).

Despite employing more than a fifth of the total workforce, Food and beverage stores does not rank among the top five in total amount of establishments among Retail Trade subsectors. Currently, Gasoline stations have the most Retail Trade locations in the state of Iowa, with 1,737. Motor vehicle and parts dealers follow closely behind, with 1,635. The top five retail subsectors account for over 55 percent of total Retail Trade establishments statewide, with six subsectors having at least 1,000 firms. As is the case with employment, Nonstore retailers has the fewest number of locations, with 508.
Retail Trade Subsector Employment, 2018

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Subsector</th>
<th>Firms</th>
<th>Employment</th>
<th>Average Annual wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>447</td>
<td>Gasoline Stations</td>
<td>1,737</td>
<td>21,983</td>
<td>$20,108</td>
</tr>
<tr>
<td>441</td>
<td>Motor Vehicle &amp; Parts Dealers</td>
<td>1,635</td>
<td>23,069</td>
<td>$46,860</td>
</tr>
<tr>
<td>453</td>
<td>Miscellaneous Store Retailers</td>
<td>1,160</td>
<td>7,355</td>
<td>$21,450</td>
</tr>
<tr>
<td>444</td>
<td>Building Materials &amp; Garden Supply Store</td>
<td>1,106</td>
<td>15,799</td>
<td>$31,808</td>
</tr>
<tr>
<td>448</td>
<td>Clothing &amp; Accessory Stores</td>
<td>1,093</td>
<td>9,271</td>
<td>$17,897</td>
</tr>
<tr>
<td>445</td>
<td>Food &amp; Beverage Stores</td>
<td>1,074</td>
<td>40,269</td>
<td>$20,718</td>
</tr>
<tr>
<td>446</td>
<td>Health &amp; Personal Care Stores</td>
<td>992</td>
<td>9,029</td>
<td>$34,082</td>
</tr>
<tr>
<td>452</td>
<td>General Merchandise Stores</td>
<td>712</td>
<td>33,925</td>
<td>$23,650</td>
</tr>
<tr>
<td>443</td>
<td>Electronics &amp; Appliance Stores</td>
<td>649</td>
<td>4,893</td>
<td>$39,233</td>
</tr>
<tr>
<td>451</td>
<td>Sporting Goods, Hobby &amp; Music Stores</td>
<td>546</td>
<td>6,156</td>
<td>$19,943</td>
</tr>
<tr>
<td>442</td>
<td>Furniture &amp; Home Furnishing Stores</td>
<td>539</td>
<td>4,159</td>
<td>$34,477</td>
</tr>
<tr>
<td>454</td>
<td>Nonstore retailers</td>
<td>508</td>
<td>2,939</td>
<td>$41,307</td>
</tr>
</tbody>
</table>

Source: Iowa Workforce Development, Labor Market Information Division

Not one subsector in the Retail Trade sector has an annual wage above the statewide average of $47,509. The subsector with the highest annual average wage is Motor vehicle and parts dealers, at $46,860. Despite being last in employment and number of firms, the non-store retailers subsector ranks second in wages paid with an annual average wage of $41,307. Ten of the twelve subsectors have a yearly wage that is below $40,000. This constitutes 85.5 percent of total retail employment earning a wage that is at least 17.4 percent lower than the statewide average. Clothing and accessory stores, with an annual average wage of $17,897, is the lowest paying subsector.

Retail Trade Subsector Wages, 2018

Source: Iowa Workforce Development, Labor Market Information Division
Retail Trade County Employment Overview

Retail Trade is a dominant employer on the county level. As of 2018, 72 of Iowa’s 99 counties have 10 percent or more of their total employment working in Retail Trade. Despite this fact, nearly half of all Iowa counties have seen retail employment decrease in the decade from 2009 to 2018. Although rural Iowa has been hit especially hard, job losses can also be found in metropolitan and micropolitan areas.

Cerro Gordo, Des Moines, Dubuque, Pottawattamie, and Wapello counties have seen retail employment decreases ranging from 2.2 to 7.7 percent respectively. Linn County, Iowa’s second largest county, lost 917 jobs, which is a decrease of 6.4 percent. Counties that showed the most growth during the same time period are Fremont (43.1 percent), Dallas (39.1 percent), Madison (34.8 percent), Benton (31.1 percent), and Butler (27.2 percent). The counties that had the largest declines were Montgomery (-28.8 percent), Guthrie (-24.3 percent), Jones (-20.8 percent), Shelby (-19.6 percent) and Page (-19.0 percent).

Bibliography

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

Economic Spotlight of Chiropractic in Iowa—A Truly Iowan Industry

By Jonathan Clayton Mostert

Chiropractic offices and care are a ubiquitous part of our society. Wherever you find yourself in the U.S., be it Los Angeles, California, or Davenport, Iowa, there is an office close by. Chiropractic care has a special place here in Iowa: in 1895, in Davenport, Daniel David Palmer founded chiropractic by performing a spinal adjustment on a deaf janitor, Harvey Lillard. After that first adjustment, it was claimed that Lillard was able to hear again.1 Two years later, Palmer founded the first school of chiropractic in Davenport. The Palmer College of Chiropractic continues to operate in Davenport, with two other colleges in San Jose, California, and Port Orange, Florida.2

From its beginnings in Iowa, chiropractic care has spread across the U.S. and the world, with numerous practices and colleges.1 This article will look at the economics of chiropractic in the state of Iowa, from the cost of gaining a Doctor of Chiropractic (D.C.) degree to the wages and number of practicing chiropractors, a comparison to related healthcare practitioners, the number of chiropractic offices in the state, and the total number of people employed within this industry.

Schooling and costs of a D.C. Degree in Iowa

In order to become a D.C., prospective students need to complete a four-year post graduate degree at one of 16 D.C. programs offered at 19 campuses accredited by the Council on Chiropractic Education.34 Admission to one of these campuses requires an undergraduate education, with a minimum of 90 semester hours, if not a full bachelor's degree.3 Tuition costs can vary among the chiropractic colleges. According to the Palmer College of Chiropractic, the estimate of tuition and other related costs (e.g., books, supplies, living expenses, etc.) for its Davenport campus is $19,428 per term for the 2018–19 year. Students take 10 terms to become a D.C., which implies a total cost of $194,280.5 Tuition on its own is estimated by the college to cost $11,749 per term, or $117,490 for a D.C. degree.5 On top of this debt, the required undergraduate education for admission into a D.C. program also needs to be considered. The average debt owed by college graduates for an undergraduate degree in Iowa is $29,859, according to the Institute For College Access and Success for 2017.6 The total cost of a chiropractor’s education in Iowa can range between approximately $147,000 and $224,000, depending on if expenses other than tuition are taken into account.

Employment and Wages for Practicing Chiropractors in Iowa

According to the Iowa Wage Report, there were an estimated 690 practicing chiropractors in Iowa in 2018, which accounts for 0.8 percent of the 87,150 total estimated people employed in the Healthcare Practitioners and Technical Occupations sector. The average annual entry level wage for a chiropractor in Iowa was $46,831 in 2018, which is 28.4 percent higher than the average annual entry level wage of $36,460 for the entire Healthcare Practitioners and Technical Occupations sector. The median annual wage for chiropractors in Iowa was $76,584 in 2018, which is 36.5 percent higher than the median annual wage of $56,117 for the Healthcare Practitioners and Technical Occupations sector. Finally, the experienced annual wage for chiropractors in Iowa was $102,764 in 2018, which is 13.2 percent higher than the experienced annual wage of $90,808 for the Healthcare Practitioners and Technical Occupations sector.

The map on the following page shows the distribution of practicing chiropractors in the state of Iowa. 56.5 percent of practicing chiropractors are located in Iowa’s eight largest Metropolitan Statistical Areas (MSA).5 A plurality, accounting for 110 chiropractors, work in the Des Moines–West Des Moines MSA, with the Davenport–Moline–Rock Island and Cedar Rapids MSAs accounting for 60 chiropractors a piece. The median wage is highest in the Cedar Rapids MSA at $97,990 annually, while the lowest annual mean wage is in the Sioux City MSA at $47,777. Both entry level and experienced level annual wages are highest in Cedar Rapids MSA at $92,966 and $117,069 respectively. Outside of the metropolitan statistical areas, the northwest region of Iowa has the highest entry level wage ($67,725), annual average wage ($80,389), and experienced annual wage ($93,484), while the southeast region of Iowa has the most practicing chiropractors (100).7

* Data for MSA only includes employees working and reported in the state of Iowa
Chiropractic Employment and Median Wages by Area*

<table>
<thead>
<tr>
<th>Area</th>
<th>Employment</th>
<th>Median Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest Balance of State</td>
<td>80</td>
<td>$50,389</td>
</tr>
<tr>
<td>Sioux City</td>
<td>20</td>
<td>$47,777</td>
</tr>
<tr>
<td>Council Bluffs</td>
<td>20</td>
<td>$60,356</td>
</tr>
<tr>
<td>Southwest Balance of State</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Northeast Balance of State</td>
<td>70</td>
<td>$59,451</td>
</tr>
<tr>
<td>Waterloo</td>
<td>30</td>
<td>$61,324</td>
</tr>
<tr>
<td>Cedar Rapids</td>
<td>60</td>
<td>$57,990</td>
</tr>
<tr>
<td>Iowa City</td>
<td>40</td>
<td>$74,201</td>
</tr>
<tr>
<td>Iowa</td>
<td>100</td>
<td>$61,115</td>
</tr>
<tr>
<td>Des Moines-West Des Moines</td>
<td>110</td>
<td>$50,986</td>
</tr>
</tbody>
</table>


*Wages not available for Southwest Balance of State and Davenport due to confidentiality reasons. Ames data not disclosable.

Chiropractic Wages and Employment in Comparison to Similar Healthcare Occupations

Comparisons of healthcare occupations similar to, or often compared with chiropractic care, are detailed in the graph on the following page. By far, the occupation with the largest average employment (1,840) and highest annual mean wage ($241,762) is Family and General Practitioners. The mean annual wages of the other three occupations are closer to the annual mean wage of chiropractors in comparison to that of Family and General Practitioners. Among these four occupations, Massage Therapists have the lowest annual mean wage ($39,026), whereas Chiropractors have the highest ($84,119). There may be less disparity in wages between these four occupations than with Family and General Practitioners because the three occupations—Exercise Physiologists, Massage Therapists, and Physical Therapists—are traditionally viewed as more similar to Chiropractic Care, with their primary focus being on working with the musculoskeletal system, rather than the wide range of practices associated with Family and General Practitioners.

The estimated number of Chiropractors in Iowa for 2018 is 690. For this comparison, only one other occupation, Exercise Physiologists, has a lower estimated number of practitioners (50). Massage Therapists come in just above Chiropractors with 820 estimated practitioners. Both Physical Therapists and Family and General Practitioners surpass the rest each by over 1000 estimated practitioners statewide. Even given Chiropractic Care’s wide recognition and use, it appears from the data regarding the number of estimated practitioners, that the demand for conventional methods of healthcare such as Physical Therapists and Family and General Practitioners is much higher than that of Chiropractors.

Employment and wages of Chiropractic Offices in Iowa

According to the Quarterly Census of Employment and Wage (QCEW) data, there were 855 chiropractic offices and practices in Iowa as of 2018. These establishments include chiropractors as staff, but can also include staff that undertake administrative work, provide medical assistance to the chiropractor, or offer other related wellness services, such as acupuncture and massage. The total average number of people employed in chiropractic offices in Iowa was 2,408 in 2018, and the total wages paid to the employees of this industry was a sizeable sum of $74,965,019.

i Employment data derived from two separate aggregates.
Comparison of Mean Wage and Employment for Selected Health Occupations

- **Exercise Physiologists**: $47,736 Annual Mean Wage
- **Chiropractors**: $84,119 Annual Mean Wage
- **Massage Therapists**: $39,026 Annual Mean Wage
- **Physical Therapists**: $83,399 Annual Mean Wage
- **Family and General Practitioners**: $241,762 Annual Mean Wage

Source: Iowa Workforce Development, Labor Market Information Division, Iowa Wage Report

**Bibliography**


Social Capital, Employment, and the Quality of Life in Iowa’s Small Towns

By Scott Thompson

Almost one-third of Iowa’s population is concentrated in communities having fewer than 10,000 residents. Generally, these small and rural communities are experiencing declines in both local jobs and population. Employers are downsizing, leaving for better possibilities in larger communities, or closing their businesses. As a result, opportunities for residents to live and work in the same town have decreased. Workers commuting to their jobs are traveling longer distances and are spending less time at home or in their communities.

As local tax bases shrink and resources erode, many local units of government are finding it increasingly difficult to meet the needs of their towns. These conditions often contribute to the material decline of communities and the quality of life for the residents in them. However, not all small towns follow what is often thought to be a predictable path toward their obsolescence.

Social capital has been described as the driving force in the quality of life for our towns and communities. Social connections are critical to community vitality, particularly of small and rural towns. The relationships developed through social interaction and civic engagement can be the impetus for community and economic development.

This report examines the changes in four social and economic aspects in the 10-year span of 2004–14:

1. Social capital: the internal (bonding and bridging) and external (linking) social ties to a person’s place of residence.
2. The number of workers who work in the towns where they reside (in-place employment) and the number of workers who must commute outside their towns (outflow) for employment.
3. The perceived quality of life, articulated through the quality of government services (police, fire, streets, etc.).
4. The changes in community-level population, county-level poverty, and median household income.

Social Capital

Social capital has been described as a multiplier for other forms of community capitals (Hoogendoorn, 2017; Bourdieu, 1986). It has been characterized as “the glue” that holds a community together and whose presence can spur the type of economic growth that brings benefits to the entire community, including job creation (Bourdieu, 1986; Beaulieu, 1986; Coleman, 1988; Hawkings and Maurer, 2010; Woolcock, 2001).

Social capital is built and reinforced through the formation of groups and collaboration within and between organizations. It is a shared resource, reliant upon mutual trust and the norms of reciprocity through personal interactions. Therefore, it is a “group-level phenomenon” (Flora and Flora, 2014; p. 119; Coleman 1988). Most often, social capital is associated with positive outcomes. It is an important resource for community improvement. Unfortunately, it may also be a resource for small groups to exert their will on those outside their social network.

There are three variants of social capital: bonding, bridging, and linking. The bonding and bridging varieties have been discussed in a number of forums; however, Flora and Flora (2014) and Granovetter (1974) might best articulate them.

Data

The social capital and quality of life data analyzed in this report are taken from the Iowa Small Town Project (ISTP). This unique longitudinal study is conducted by the Department of Sociology at Iowa State University.2 Beginning in 1994 and in 10-year increments, the project surveys 150 randomly chosen residents living in one nonmetropolitan (rural) town3 in each of Iowa’s 99 counties.

1 2014 United States Census Estimates
Social Capital data used to examine the levels of bonding and bridging social capital are taken from Likert scale (1, Strongly disagree; ... 5, Strongly agree)\(^4\) responses to questions in each panel.  

- **Bonding social capital** questions measure friendliness, closeness, and neighborliness, which are the indicators of strong personal social ties. In previous quantitative studies, both bonding and bridging (below) social capital have exhibited high levels of statistically significant correlations.  

- **Bridging social capital** survey questions assess levels of trust, caring for others, and the inclusion of newcomers. These indicators measure the strength of the weaker ties between individuals and/or groups who do not share similar social relationships.  

- **Linking social capital** is focused on the level of participation individuals have in both local and outside groups and organizations. It is measured as a categorical variable (1, Do not belong to any organization; 2, More local; 3, About the same between local and outside; and 4, More outside).\(^5\)

**Area employment characteristics** data was gathered from the United States Census Bureau, utilizing the web based “On the Map” application. Inflow (workers commuting into the community for employment), in-place (workers who live and work in the same community), and outflow (workers who live in the community but commute outside the community for employment) data for all covered employment (primary and secondary jobs) is sourced from state-level unemployment insurance wage records reported by employers and maintained by Iowa Workforce Development. This report analyzes in-place and outflow data and its relationships with social capital and quality of life.

**Population, poverty and median household income estimates** were acquired from two sources. Population estimates were gathered from Census Bureau data. Estimates are based from each respective decennial census. County-level poverty and Median Household Income (MHI) estimates were sourced from the Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program.

**Quality of life** data examines the quality of eight local government services. The services are measured on a four-point Likert scale (1, Poor; 2, Fair; 3, Good; 4, Very good).\(^6\)

**Results**

### Changes in Population, Poverty, and Income

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Poverty</th>
<th>MHI</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Towns n = 99</td>
<td>4.1%</td>
<td>17.6%</td>
<td>25.2%</td>
</tr>
<tr>
<td>&lt; 1,000 n = 47</td>
<td>-3.3%</td>
<td>16.0%</td>
<td>25.9%</td>
</tr>
<tr>
<td>1K - 2,999 n = 36</td>
<td>2.1%</td>
<td>18.3%</td>
<td>24.5%</td>
</tr>
<tr>
<td>3K - 4,999 n = 8</td>
<td>2.9%</td>
<td>15.7%</td>
<td>26.9%</td>
</tr>
<tr>
<td>5K - 9,999 n = 6</td>
<td>6.2%</td>
<td>18.7%</td>
<td>22.9%</td>
</tr>
<tr>
<td>10,000+ n = 2</td>
<td>9.8%</td>
<td>19.4%</td>
<td>22.7%</td>
</tr>
</tbody>
</table>

On average, the 99 towns in this study bucked the broader trends of declining populations and job losses; however, the devil is in the details. Despite a 3.3 percent decline in population, the 47 smallest communities remain closely knit, inclusive, and accepting. Furthermore, these towns are reaching out beyond the boundaries of their communities to build relationships with external groups and organizations. This may be evidence of behaviors that will contribute to community resilience through the creation of local or regional community and economic development projects.

Population change in the ISTP towns is positively correlated with town size. Iowa’s smallest towns, while closely knit, are shrinking. Of the five population categories in this report, only communities under 1,000 residents saw an average population decline.

As expected, the change in the county-level median household income (MHI) for towns is negatively correlated with poverty. The largest average increase in MHI (26.9 percent) occurred in counties with populations between 3,000 and 4,999 were located. These counties also experienced the smallest increase in poverty rates (15.7 percent).

In 2014, Iowans who lived in small and rural communities were less likely to work in the town where they reside compared to 2004. Workers traveled 21 percent longer average distances in 2014, compared to the average distance traveled in 2004.\(^7\)

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\(^4\) Data subject to rescaling and recoding.  
\(^5\) 2014 United States Census estimates.
Longer commute distances typically translate into longer commute times. Workers are spending more time traveling to and from work and less time with family or in their communities. Nonetheless, social relationships are continuing to strengthen, while subjective measures of the quality of rural lives continue to improve.

**Social Capital**

The quality of social capital in Iowa’s small towns increased from 2004–14. Iowa communities have become more closely knit and, at the same time, more inclusive to newcomers. Three of the five population categories experienced increases in levels of bonding social capital. The four population groups under 10,000 experienced increasing levels of bridging social capital. Linking social capital increased in each of the five population categories.

<table>
<thead>
<tr>
<th>Changes in Social Capital</th>
<th>Bonding</th>
<th>Bridging</th>
<th>Linking</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Towns n = 99</td>
<td>3.52</td>
<td>3.66</td>
<td>0.14</td>
</tr>
<tr>
<td>&lt; 1,000 n = 47</td>
<td>3.57</td>
<td>3.69</td>
<td>0.12</td>
</tr>
<tr>
<td>1K - 2,999 n = 36</td>
<td>3.48</td>
<td>3.65</td>
<td>0.17</td>
</tr>
<tr>
<td>3K - 9,999 n = 8</td>
<td>3.44</td>
<td>3.44</td>
<td>0.00</td>
</tr>
<tr>
<td>5K - 9,999 n = 6</td>
<td>3.45</td>
<td>3.37</td>
<td>-0.08</td>
</tr>
<tr>
<td>10,000+ n = 2</td>
<td>3.62</td>
<td>3.63</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Bonding social capital increased the most in communities with populations between 1,000 and 2,999. Communities with populations between 5,000 and 9,999 saw their bonding social capital level decline by 2.3 percent. Iowa’s smallest communities (<1,000) continue to maintain the highest levels of bonding social capital, with a mean of 3.69.

Levels of bridging social capital increased over this period. Each population category under 10,000 had increases in the inclusionary nature of their communities. Communities with populations between 5,000 and 9,999 experienced the most significant increase (5.5 percent). As the population grew in the study’s two largest communities, social capital declined by 4.0 percent.

The average linking social capital score increased sharply among all population categories. Each of the five groups trended towards more associations with external groups than with local groups. The largest increase was experienced in the 5,000–9,999 population category.

**Area Employment Characteristics**

Overall, job growth in the 99 ISTP communities increased by less than 1.0 percent. The growth in local jobs was concentrated exclusively in the two largest communities of the study. As the number of local jobs decrease in small towns, workers must commute outside their hometowns for employment opportunities. In 2014, there were 20 percent fewer workers who were able to live and work in the same town. As a result, worker outflow increased by 29.3 percent. This increase can be directly attributed to the job losses in communities with populations under 10,000.

The perception of local job quality has increased slightly, but the quality of jobs is perceived to be fair, at best. The percentage of respondents perceiving job quality to be “good” has increased. However, over 71 percent of respondents view local job quality to be “fair” or “poor.”

**Subjective Quality of Life: Local Government**

There are 947 incorporated cities in Iowa. Over 30 percent of Iowa’s total population lives in the 907 communities having fewer than 10,000 residents. Therefore, a substantial percentage of Iowans live in towns sharing characteristics similar to the towns in the ISTP. The local units of government in these communities provide important services or facilitate the delivery of those services individuals are not capable of providing or facilitating themselves.

Public schools are often the most visible entity in small rural towns and are woven into the fabric that makes up the identity of a community. Schools are an important social and economic resource. They also serve as a center of interaction for people of all ages. Rural school districts face funding, staffing, and enrollment challenges. However, respondents continue to place a high value on the quality of their schools. This is particularly important for two reasons.

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8 Survey responses included “Not Available” and “Do Not Know.” Totals may not equal 100 percent.

9 2014 United States Census estimates.
other local services are important factors in the decision-making process.

As communities lose population, public funding for local government services becomes strained. Today, many communities are becoming increasingly dependent on cost-sharing or regional strategies to maintain necessary local services. Despite struggling with issues of low staffing and shrinking budgets (Russell, 2019), the quality of local law enforcement and emergency services continues to improve.

Maintaining the built capital in small towns is increasingly challenging. The quality of public parks and public water systems continue to increase. However, residents took a different view of the quality of their city streets.

The accumulation of social capital can play an important role how community members support local infrastructure. Community parks are frequently the beneficiaries of bonding and bridging social capital. This is often expressed through the cooperative efforts of local individuals and groups who come together with project planning, donated labor, and financial contributions.

As infrastructure ages, particularly water and street systems, the costs for improvements may exceed the amount of cash available to a local government. Funding strategies may depend upon the social relationships between community leaders, individuals, and groups to rally support for community improvement projects. The linking social capital of local leaders is important in gathering the planning, financing, and political resources needed by communities, which are often located outside the community.

Discussion

The findings in this preliminary report reflect a combination of mixed conditions for Iowa’s small and rural communities. In the midst of population decline and fewer locally-based jobs, levels of social capital remain high and are growing. These are indications that the social foundations necessary for community vitality are in place. Social capital, produced through community and civic engagement is an important component of effective local governance and community development.

Job losses in the smallest of our rural communities, while a test of resilience, does not mean the end is near for our rural communities. Generally, community residents remain positive in the quality of their local government services. This should all be interpreted as signals for optimism for community members, particularly among local leaders.

Public sector services represent only a portion of how the quality of life is measured. Private sector services, including retail shopping, healthcare, housing, child care, youth and senior citizen programs, and the quality of local jobs have all been assessed in the ISTP. A companion article, examining the effects of the quality of local services, will be forthcoming.

Bibliography


Examining Iowa’s Employment Using Demographic Data

By Daniel Edwards

According to the United States Census Bureau, authoritative bodies at the state and municipal level are increasing their use of region-specific economic information to improve their decision-making ability. One such example of data being used by these groups is the U.S. Census Bureau’s Longitudinal Employer-Household Dynamics (LEHD) program, which combines state, federal, and Census Bureau information “to fill critical data gaps and provide indicators needed by state and local authorities.”¹ This article will explore potential uses for LEHD data while looking at various demographics of Iowa’s employed, such as educational attainment, age, and gender.

Educational attainment

The chart below uses an annual average of 2017 Census Bureau data to group employed Iowans according to their level of educational attainment. The data indicates that 51.4 percent of employed Iowans had obtained some level of education beyond high school.² However, this data includes individuals whose level of education was unknown. Among those whose educational attainment was available, 60.2 percent had acquired an education past high school.² This figure is similar to the finding of a 2018 laborshed study conducted by Iowa Workforce Development (IWD), which discovered that 57.6 percent of Iowans between the ages of 25 and 64 had achieved some level of postsecondary education.³

The state of Iowa is currently pursuing an initiative known as Future Ready Iowa. The goal of this initiative is for 70.0 percent of Iowa’s workforce to possess a level of education or training beyond high school by 2025.⁴

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¹ U.S. Census Bureau, Center for Economic Studies, LEHD program
² U.S. Census Bureau, Center for Economic Studies, LEHD program
³ U.S. Census Bureau, Center for Economic Studies, LEHD program
⁴ Future Ready Iowa
Gender

LEHD data can also be used to examine gender differences between sectors. The chart below details the gender composition of each of Iowa’s 20 economic sectors (as defined by the Bureau of Labor Statistics [BLS]), as well as the gender composition of Iowa’s economy as a whole. For example, the healthcare and social assistance sector is heavily dominated by women, who held 82.0 percent of jobs in the sector as of the second quarter of 2017. Conversely, the mining sector is almost exclusively male, with 89.1 percent of positions being possessed by men. In sum, men held slightly more jobs than women in Iowa, 50.2 percent to 49.8 percent.

Iowa Sector Employment by Gender—Second Quarter, 2017

<table>
<thead>
<tr>
<th>Sector</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare &amp; Social Assistance</td>
<td>18.0%</td>
<td>82.0%</td>
</tr>
<tr>
<td>Education</td>
<td>30.9%</td>
<td>69.1%</td>
</tr>
<tr>
<td>Finance &amp; Insurance</td>
<td>37.8%</td>
<td>62.2%</td>
</tr>
<tr>
<td>Accomodations &amp; Food Services</td>
<td>43.4%</td>
<td>56.6%</td>
</tr>
<tr>
<td>Arts &amp; Entertainment</td>
<td>46.3%</td>
<td>53.7%</td>
</tr>
<tr>
<td>Other Services</td>
<td>48.3%</td>
<td>51.7%</td>
</tr>
<tr>
<td>Professional &amp; Technical Services</td>
<td>48.7%</td>
<td>51.3%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>49.0%</td>
<td>51.0%</td>
</tr>
<tr>
<td>All</td>
<td>50.2%</td>
<td>49.8%</td>
</tr>
<tr>
<td>Management of Companies</td>
<td>50.3%</td>
<td>49.7%</td>
</tr>
<tr>
<td>Information</td>
<td>54.2%</td>
<td>45.8%</td>
</tr>
<tr>
<td>Real Estate &amp; Rental</td>
<td>54.6%</td>
<td>45.4%</td>
</tr>
<tr>
<td>Administrative &amp; Waste Services</td>
<td>55.9%</td>
<td>44.1%</td>
</tr>
<tr>
<td>Government</td>
<td>56.1%</td>
<td>43.9%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>71.0%</td>
<td>29.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>72.5%</td>
<td>27.5%</td>
</tr>
<tr>
<td>Transportation &amp; Warehousing</td>
<td>75.9%</td>
<td>24.1%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>76.3%</td>
<td>23.7%</td>
</tr>
<tr>
<td>Utilities</td>
<td>76.5%</td>
<td>23.5%</td>
</tr>
<tr>
<td>Construction</td>
<td>87.6%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Mining</td>
<td>89.1%</td>
<td>10.9%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, Center for Economic Studies, LEHD program

Age

Differences in a workforce’s age composition can vary greatly between regions. For example, urban regions are more likely to skew younger than rural regions. This is an oft-cited effect of the “rural brain drain.” This effect can be seen in the charts on the next page. The first chart details the age composition of IWD Region 16, which is comprised of Des Moines, Henry, Lee, and Louisa counties. The second chart provides the same look at IWD Region 10, which is made up of Benton, Cedar, Iowa, Johnson, Jones, Linn, and Washington counties. Workforce of Region 16 skews older than that of Region 10, which is home to Cedar Rapids and Iowa City.

The trend of younger workers migrating to urban regions shows little sign of slowing in Iowa. Census Bureau data released in 2019 indicates that 69 of the state’s 99 counties lost population between 2010 and 2018, while large counties such as Dallas, Johnson, and Polk experienced double-digit percentage growth.
## Workforce Age Composition of IWD Regions 10 and 16 in 2017

**Region 16**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>14–18</td>
<td>3.1%</td>
</tr>
<tr>
<td>19–21</td>
<td>4.9%</td>
</tr>
<tr>
<td>22–24</td>
<td>5.4%</td>
</tr>
<tr>
<td>25–34</td>
<td>19.6%</td>
</tr>
<tr>
<td>35–44</td>
<td>20.1%</td>
</tr>
<tr>
<td>45–54</td>
<td>21.5%</td>
</tr>
<tr>
<td>55–64</td>
<td>19.3%</td>
</tr>
<tr>
<td>65+</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

**Region 10**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>14–18</td>
<td>3.2%</td>
</tr>
<tr>
<td>19–21</td>
<td>6.4%</td>
</tr>
<tr>
<td>22–24</td>
<td>22.4%</td>
</tr>
<tr>
<td>25–34</td>
<td>20.7%</td>
</tr>
<tr>
<td>35–44</td>
<td>20.0%</td>
</tr>
<tr>
<td>45–54</td>
<td>16.8%</td>
</tr>
<tr>
<td>55–64</td>
<td>5.2%</td>
</tr>
<tr>
<td>65+</td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, Center for Economic Studies, LEHD program

LEHD data can also be filtered using one or more worker or employer characteristics. In the chart below, average monthly earnings is broken out by age group, similar to how age groups are broken out in the charts above. However, the data is also filtered by gender. Here, one can see that there are sizable differences in average monthly earnings between men and women, whereas a chart only describing average monthly earnings for all workers would exclude this potentially useful information.

## Average Monthly Earnings among Iowans in 2017

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Men's Average Monthly Earnings</th>
<th>Women's Average Monthly Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>14–18</td>
<td>$602</td>
<td>$1,111</td>
</tr>
<tr>
<td>19–21</td>
<td>$1,641</td>
<td>$537</td>
</tr>
<tr>
<td>22–24</td>
<td>$2,027</td>
<td>$1,111</td>
</tr>
<tr>
<td>25–34</td>
<td>$4,007</td>
<td>$3,032</td>
</tr>
<tr>
<td>35–44</td>
<td>$5,374</td>
<td>$3,739</td>
</tr>
<tr>
<td>45–54</td>
<td>$6,017</td>
<td>$3,827</td>
</tr>
<tr>
<td>55–64</td>
<td>$5,692</td>
<td>$3,518</td>
</tr>
<tr>
<td>65+</td>
<td>$3,885</td>
<td>$2,113</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, Center for Economic Studies, LEHD program
The data used in this article is accessible to the public via the U.S. Census Bureau’s Web site. The Web site’s URL and the applications used to access this data are located in red boxes in the image below.

Bibliography


**2018 IOWA WORKFORCE NEEDS ASSESSMENT SURVEY**

Iowa Workforce Development (IWD) conducted the sixth Workforce Needs Assessment. In addition to vacancy and retirement data, the survey addressed the demand for workers and skills required in the workforce. Data regarding benefits offered by employers was also collected and is delineated in the Employment Benefit Analysis. The results of the survey were analyzed on both a statewide and regional basis.

Beginning in July 2018, 28,603 employers operating 41,452 locations in the state were contacted either by mail or email and asked to complete the survey. By the end of the survey period (October 2018), IWD had received 10,613 responses, yielding a 37.1 percent response rate. For more information about the Iowa Workforce Needs Assessment Survey go to [www.iowalmi.gov/wna](http://www.iowalmi.gov/wna).

**VACANCY ESTIMATES**

<table>
<thead>
<tr>
<th>Total Number of Job Orders by Occupational Category</th>
<th>Total Job Orders</th>
<th>Percent of Total Job Orders</th>
<th>Entry Wage</th>
<th>Average Wage</th>
<th>Projected Annual Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales &amp; Related</td>
<td>40,381</td>
<td>12.2%</td>
<td>$8.67</td>
<td>$17.01</td>
<td>25,440</td>
</tr>
<tr>
<td>Office &amp; Administrative Support</td>
<td>39,572</td>
<td>12.0%</td>
<td>$11.28</td>
<td>$17.45</td>
<td>28,995</td>
</tr>
<tr>
<td>Transportation &amp; Material Moving</td>
<td>34,218</td>
<td>10.4%</td>
<td>$10.90</td>
<td>$17.63</td>
<td>18,310</td>
</tr>
<tr>
<td>Healthcare Practitioner &amp; Technical</td>
<td>31,284</td>
<td>9.5%</td>
<td>$17.53</td>
<td>$34.95</td>
<td>6,310</td>
</tr>
<tr>
<td>Business &amp; Financial Operations</td>
<td>23,809</td>
<td>7.2%</td>
<td>$18.72</td>
<td>$31.13</td>
<td>8,310</td>
</tr>
<tr>
<td>Management</td>
<td>23,624</td>
<td>7.2%</td>
<td>$22.93</td>
<td>$46.49</td>
<td>13,910</td>
</tr>
<tr>
<td>Food Preparation &amp; Serving Related</td>
<td>20,316</td>
<td>6.2%</td>
<td>$8.39</td>
<td>$10.63</td>
<td>26,045</td>
</tr>
<tr>
<td>Computer &amp; Mathematical Science</td>
<td>19,383</td>
<td>5.9%</td>
<td>$22.03</td>
<td>$36.87</td>
<td>2,960</td>
</tr>
<tr>
<td>Production</td>
<td>17,963</td>
<td>5.4%</td>
<td>$11.86</td>
<td>$17.66</td>
<td>19,115</td>
</tr>
<tr>
<td>Installation, Maintenance &amp; Repair</td>
<td>14,034</td>
<td>4.3%</td>
<td>$14.03</td>
<td>$22.12</td>
<td>7,845</td>
</tr>
<tr>
<td>Architecture &amp; Engineering</td>
<td>11,708</td>
<td>3.5%</td>
<td>$21.43</td>
<td>$33.67</td>
<td>1,805</td>
</tr>
<tr>
<td>Healthcare Support</td>
<td>9,740</td>
<td>3.0%</td>
<td>$11.27</td>
<td>$15.00</td>
<td>6,755</td>
</tr>
<tr>
<td>Building &amp; Grounds Cleaning &amp; Maintenance</td>
<td>6,961</td>
<td>2.1%</td>
<td>$9.34</td>
<td>$13.40</td>
<td>8,675</td>
</tr>
<tr>
<td>Construction &amp; Extraction</td>
<td>6,341</td>
<td>1.9%</td>
<td>$14.37</td>
<td>$21.90</td>
<td>10,160</td>
</tr>
<tr>
<td>Community &amp; Social Services</td>
<td>5,735</td>
<td>1.7%</td>
<td>$12.56</td>
<td>$21.08</td>
<td>3,890</td>
</tr>
<tr>
<td>Life, Physical &amp; Social Science</td>
<td>4,730</td>
<td>1.4%</td>
<td>$17.24</td>
<td>$28.82</td>
<td>1,450</td>
</tr>
<tr>
<td>Protective Service</td>
<td>4,691</td>
<td>1.4%</td>
<td>$10.50</td>
<td>$20.91</td>
<td>2,770</td>
</tr>
<tr>
<td>Education, Training &amp; Library</td>
<td>4,421</td>
<td>1.3%</td>
<td>$11.54</td>
<td>$24.62</td>
<td>11,505</td>
</tr>
<tr>
<td>Arts, Design, Entertainment, Sports &amp; Related</td>
<td>4,335</td>
<td>1.3%</td>
<td>$9.66</td>
<td>$19.14</td>
<td>2,900</td>
</tr>
<tr>
<td>Personal Care &amp; Service</td>
<td>3,627</td>
<td>1.1%</td>
<td>$8.70</td>
<td>$12.38</td>
<td>9,570</td>
</tr>
<tr>
<td>Farming, Fishing &amp; Forestry</td>
<td>2,156</td>
<td>0.7%</td>
<td>$11.52</td>
<td>$16.37</td>
<td>3,190</td>
</tr>
<tr>
<td>Legal</td>
<td>1,003</td>
<td>0.3%</td>
<td>$17.11</td>
<td>$37.77</td>
<td>695</td>
</tr>
</tbody>
</table>

3Iowa’s Long-Term Occupational Projections - Iowa Workforce Development - [https://www.iowaworkforcedevelopment.gov/occupational-projections](https://www.iowaworkforcedevelopment.gov/occupational-projections)
PERCEPTION OF APPLICANTS

Employers that responded to the survey were asked their perceptions on the degree to which job applicants possessed basic, occupational, and interpersonal or soft skills.

Workforce gaps can be determined by comparing the inventory of skills needed by employers (via the Workforce Needs Assessment Survey) and those skills held by the population of workers as presented in a Laborshed analysis. This gap can then be analyzed and the necessary training and education programs can be formalized through a Skilledshad analysis.

### Perception of Applicants

<table>
<thead>
<tr>
<th>Perception of Applicants</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants fulfill all necessary requirements for the job.</td>
<td>7.2%</td>
<td>18.3%</td>
<td>36.2%</td>
<td>27.6%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Applicants possess the basic skills required for the job.</td>
<td>3.2%</td>
<td>10.8%</td>
<td>32.9%</td>
<td>36.4%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Applicants possess the hard, or occupational, skills for the job.</td>
<td>10.2%</td>
<td>22.6%</td>
<td>37.0%</td>
<td>21.5%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Applicants possess the soft, or interpersonal, skills for the job.</td>
<td>5.7%</td>
<td>19.3%</td>
<td>41.8%</td>
<td>24.9%</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

### Basic Skills Lacking in Applicants

- **Written Communication**: 24.8%
- **Applied Mathematics**: 17.1%
- **Reading for Information**: 15.2%
- **Locating Information**: 12.4%

### Occupational “Hard” Skills Lacking in Applicants

- **Critical/Analytical Thinking**: 33.1%
- **Business Communication**: 19.2%
- **Machine Operation**: 14.7%
- **Project Management**: 13.1%
- **Basic Computer Literacy**: 11.8%
- **Computer Software**: 11.6%
- **General Office Software**: 9.7%

### Occupational “hard” skills

These skills include literacy, numeracy (the ability to do arithmetic and reason with numbers), and the abilities to locate and read for information. The Skilled Iowa initiative, through the National Career Readiness Certificate testing program, provides a means to benchmark and certify applicants' skills in Applied Mathematics, Reading for Information and Locating Information. For more information on Skilled Iowa visit [www.skillediowa.org](http://www.skillediowa.org).

### Occupational “Hard” Skills

- Critical/Analytical Thinking
- Business Communication
- Machine Operation
- Project Management
- Basic Computer Literacy
- Computer Software
- General Office Software

### Interpersonal “Soft” Skills Lacking in Applicants

- **Motivation**: 49.3%
- **Dependability**: 45.2%
- **Time Management**: 35.5%
- **Communication Skills**: 35.2%
- **Teamwork**: 20.7%
- **Leadership**: 18.8%
- **Honesty**: 14.9%

### Interpersonal “soft” skills

These include such characteristics as leadership, customer service and teamwork. Individuals with strong interpersonal skills are generally well suited to working with others.
2018 Iowa Employment Benefit Analysis

Data regarding benefits offered by Iowa employers was collected within the Workforce Needs Assessment Survey. The results of the survey were analyzed on both an overall and per industry basis. Beginning in July 2018, 28,603 employers, operating 41,452 locations, in the region were contacted either by mail or email and asked to complete the survey. By the end of the survey period (October 18, 2018), IWD had received 10,613 responses, yielding a 37.1 percent response rate. For more information about the Iowa Employment Benefit Analysis go to www.iowalmi.gov/employment-benefit-analysis.

Benefits Offered to Employees

77.6% of the 10,613 employers who responded provide benefits to employees.

- Full-time Employees (Direct Offer) 95.3%
- Part-time Employees (Direct Offer) 19.2%
- Provided by 3rd Party Vendor 2.4%
- Union Negotiated 3.5%

Average Annual Benefit Package Cost Per Employee

- Under $1,000 7.5%
- $1,000 - $2,999 13.9%
- $3,000 - $4,999 15.4%
- $5,000 - $6,999 13.7%
- $7,000 - $8,999 12.0%
- $9,000 - $10,999 10.4%
- $11,000 - $12,999 6.8%
- $13,000 or more 20.3%

Insurance Benefits Offered by Employers

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Full Time Positions</th>
<th>Part Time Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accidental Death &amp; Dismemberment</td>
<td>37.4%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Dental Coverage</td>
<td>52.7%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Life Insurance</td>
<td>46.4%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Long Term Disability</td>
<td>33.9%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Medical Insurance</td>
<td>78.1%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Prescription Drug Coverage</td>
<td>59.3%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Short Term Disability</td>
<td>33.3%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Vision Coverage</td>
<td>34.7%</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

Paid Leave Offered by Employers

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Full Time Positions</th>
<th>Part Time Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sick Leave</td>
<td>73.6%</td>
<td>61.3%</td>
</tr>
<tr>
<td>Vacation</td>
<td>77.6%</td>
<td>75.0%</td>
</tr>
<tr>
<td>Personal Time</td>
<td>69.2%</td>
<td>57.1%</td>
</tr>
<tr>
<td>Jury Duty</td>
<td>42.3%</td>
<td>39.0%</td>
</tr>
<tr>
<td>Community Service</td>
<td>58.2%</td>
<td>51.0%</td>
</tr>
<tr>
<td>Military Leave</td>
<td>58.0%</td>
<td>51.0%</td>
</tr>
<tr>
<td>Other Paid Leave</td>
<td>37.4%</td>
<td>30.3%</td>
</tr>
</tbody>
</table>

Average Annual Days Off Reported for Full-Time Positions

- Under 10 days 47.5%
- 11-20 days 30.4%
- 21-30 days 12.0%
- 31-60 days 7.5%
- 61-90 days 3.0%
- 91-120 days 1.5%
- Over 120 days 0.1%

How Healthcare Premiums are Paid

- 100% Employer Paid - 14.1%
- Shared Cost (% of Premium) - 48.4%
  (Average of 60.3% per employee)
- Shared Cost (% of Wage) - 1.6%
  (Average of 42.7% per employee)
- Shared Cost ($ Amount) - 21.5%
  (Average of $436.25 per employee)
- 100% Employee Paid - 10.6%
- Other - 3.8%

Employee Healthcare Plan Contribution Change

- No Change 72.7%
- Increase 26.5%
- Decrease 0.8%
MANUFACTURING INDUSTRY - 2018 EMPLOYER BENEFIT ANALYSIS

In July 2018, 2,237 employers in the Manufacturing Industry, operating 2,621 locations, were contacted to complete the survey. At its close in October 2018, IWD had received 915 responses, yielding a 40.9 percent response rate.

**Benefits Offered to Employees**

- 88.9% of the 915 employers surveyed provide benefits to employees.
- 97.8% of full-time employees (Direct Offer) are provided benefits.
- 11.3% of part-time employees (Direct Offer) are provided benefits.
- 2.0% of employees are provided by third party vendors.
- 4.2% of employees are union negotiated.

**Average Annual Benefit Package Cost Per Employee**

The average annual benefit package cost per employee is broken down by income level:

- Under $1,000: 4.0%
- $1,000 - $2,999: 12.8%
- $3,000 - $4,999: 16.2%
- $5,000 - $6,999: 13.8%
- $7,000 - $8,999: 13.7%
- $9,000 - $10,999: 13.7%
- $11,000 - $12,999: 6.4%
- Over $13,000: 19.4%

**How Healthcare Premiums are Paid**

- 100% Employer Paid: 10.7%
- Shared Cost (% of Premium) - 56.5% (Average of 63.3% per employee)
- Shared Cost (% of Wage) - 1.5% (Average of 41.0% per employee)
- Shared Cost ($ Amount) - 22.9% (Average of $500.55 per employee)
- 100% Employee Paid: 5.5%
- Other: 2.9%

**Employee Healthcare Plan Contribution Change**

- No Change: 68.7%
- Increase: 29.9%
- Decrease: 1.4%

**Insurance Benefits Offered by Employers**

**Paid Leave Offered by Employers**

- Bereavement/Funeral Leave: Full-Time Positions 67.9%, Part-Time Positions 5.0%
- Maternity/Paternity Leave: Full-Time Positions 22.3%, Part-Time Positions 0.9%
- Paid Holidays - 7.0 Days Annually: Full-Time Positions 84.6%, Part-Time Positions 7.0%
- Paid Sick Leave - 6.8 Days Annually: Full-Time Positions 27.6%, Part-Time Positions 1.5%
- Paid Vacation - 7.6 Days Annually: Full-Time Positions 69.6%, Part-Time Positions 4.2%
- Paid-Time-Off (PTO) - 9.2 Days Annually: Full-Time Positions 45.8%, Part-Time Positions 4.1%
- Personal Days/Floating Holidays: Full-Time Positions 32.2%, Part-Time Positions 1.7%
- Training Leave: Full-Time Positions 7.5%, Part-Time Positions 0.4%

**Average Annual Days Off Reported for Full-Time Positions**

- Bereavement/Funeral Leave: 7.7 Days
- Maternity/Paternity Leave: 7.0 Days
- Paid Holidays - 7.0 Days Annually: 6.8 Days
- Paid Sick Leave - 6.8 Days Annually: 6.8 Days
- Paid Vacation - 7.6 Days Annually: 7.0 Days
- Paid-Time-Off (PTO) - 9.2 Days Annually: 7.6 Days
- Personal Days/Floating Holidays: 3.2 Days
- Training Leave: 0.7 Days

**Other Benefits Offered by Employers**

- Bonuses: Full-Time Positions 65.3%, Part-Time Positions 4.8%
- Childcare Assistance: Full-Time Positions 1.6%, Part-Time Positions 0.0%
- Company Vehicle/Mileage: Full-Time Positions 32.6%, Part-Time Positions 1.8%
- Employee Assistance Program: Full-Time Positions 25.3%, Part-Time Positions 3.2%
- Flex Spending Account: Full-Time Positions 36.2%, Part-Time Positions 3.2%
- Profit Sharing/Stock Options: Full-Time Positions 23.1%, Part-Time Positions 3.0%
- Relocation/Moving Expense: Full-Time Positions 11.3%, Part-Time Positions 0.6%
- Retirement Package: Full-Time Positions 26.2%, Part-Time Positions 2.6%
- Shift Differential Pay: Full-Time Positions 27.9%, Part-Time Positions 2.0%
- Tuition Assistance: Full-Time Positions 21.0%, Part-Time Positions 1.4%
- Uniform Allowance: Full-Time Positions 32.3%, Part-Time Positions 2.5%
- Wellness Program: Full-Time Positions 17.0%, Part-Time Positions 1.6%
Iowa Short-Term Industry Projections, 2018–20

By Chap Deit

Overview

The Labor Market Information Division of Iowa Workforce Development provides a short-term employment outlook to identify industries projected to expand or atrophy. The Iowa short-term industry projections for the next two years, 2018–20, contain statewide changes based on three-digit North American Industry Classification System (NAICS) codes. The industry projections are analyzed at the three-digit NAICS subsector level, which are then summed up to the major two-digit NAICS industries as shown in the figure below. The forecasts are shown in terms of numeric change and growth or decline in the total number of jobs. Employment totals cover wage and salaried workers, employees in natural resources and mining, and the self-employed. The purpose of these projections is to aid public and private leaders with information they can use to make informed decisions.

The aggregate statewide employment for whose employment is all wage and salaried workers, employees in natural resources and mining, and the self-employed is projected to gain 22,325 net jobs from 2018–20, an increase of 1.3 percent. The chart below provides a breakdown of projected employment growth (or loss) by industry.

Major Industry Employment Projections, 2018–20

Source: Labor Force and Occupational Analysis Bureau, Iowa Workforce Development

Industry Sectors

Health Care and Social Assistance: This sector is projected to net 5,490 additional jobs from 2018–20. The Ambulatory health care services subsector is projected to have the largest net gain, adding 1,960 jobs. Other subsectors and their projected gains are Hospitals (+1,565); Nursing and Residential Care Facilities (+1,075); and Social Assistance (+890). Due to an aging population, this industry is expected to see substantial growth. As the Baby Boom generation ages, more health care workers will be needed. Further, in addition to a growing number of Medicare recipients, funding is expected to increase as the government addresses crises in substance abuse and mental health. Pressure for the health care sector to increase efficiency and cut costs means that the industry may move away from acute care settings, such as hospitals, toward alternative sites and community care based settings. Increases in community care programs will result in higher demand for homemaker and housekeeper occupations.
Professional and Business Services: This industry, which includes temporary help firms, consulting services, and waste management establishments, is projected to net 3,710 jobs. Most of the job gains are projected to come from the Professional, Scientific, and Technical Services sector (+1,810); the Administrative and support services subsector (+1,010); and the Management of Companies and Enterprises sector (+745). The demand in Professional and Business Services is driven by new businesses and companies that need to leverage external sources without commitment to hire new employees and for the need to adapt and harness information technology to drive efficiency. This industry leads the broader economy in terms of changes; the industry is expected to experience solid growth over the projections period as the broader U.S. economy continues to grow into the digital economy. Business-friendly policies and the rollback of regulations, in addition to corporate tax cuts, provide a favorable environment to start a business and expand services. This will increase short-term use of contract workers or consultants as businesses expand and adapt to new technologies.

Leisure and Hospitality: Included in this industry are hotels, casinos, restaurants, sports teams, theme parks, performing arts companies, and arcades. The industry is expected to net 3,235 additional positions from 2018–20. Most of these gains are expected to occur in the Food services and drinking places subsector (+2,005). Accommodations, which includes hotels and motels, is projected to add 520 jobs. The Amusements, gambling, and recreation subsector is expected to add 495 jobs, whereas Performing arts and spectator sports will add 135 jobs. The Museums, historical sites, zoos, and parks subsector is projected to have a modest increase of 80 jobs. Solid disposable income growth will support the leisure and hospitality sector. As incomes grow, restaurants and the broader hospitality sector will increase hiring to match consumer demand. Low unemployment and tax cuts fueled consumer spending in 2018 and a low unemployment rate means more consumers have jobs and can afford leisure activities. That should continue as a tight labor market induces higher wages. Relatively cheap gas prices are tailwinds for the sector as well; every dollar saved at the pump is a dollar for consumers to spend somewhere else.

Construction: This sector is projected to add 2,850 net jobs. Most of this increase is projected to come from the Specialty trade contractors subsector (+2,365). The Heavy and civil engineering construction (+240) and Construction of buildings (+245) subsectors are projected to have more modest gains. The Renewable energy industry will continue to create jobs as government incentivizes the consumption of renewable energy and the cost becomes competitive to produce. As retail commerce increases online sales, the demand for warehouse and logistics facilities is expected to grow. Manufacturing plant construction and residential and non-residential buildings are projected to add jobs as the construction industry expands as population grows. Federal and state corporate tax cuts should incentivize companies to build new production facilities and therefore add jobs.

Trade, Transportation, and Utilities: This industry is expected to add 2,445 jobs in the 2018–20 projections period. The Transportation and Warehousing sector will add the most jobs: 2,080. Trade is represented by two sectors: Wholesale and Retail. Wholesale Trade is expected to add 360 jobs, with merchants of durable and merchants of non-durable goods adding 270 and 110 jobs, respectively. Also included in the Wholesale Trade sector, the Electronic markets and agents and brokers subsector is projected to shrink by 20 jobs.

Retail Trade is projected to add 280 jobs. Most of the gains from this sector will come from Gasoline stations (+625) and Motor vehicle and parts dealers (+380). However, other subsectors within Retail Trade are expected to decline: Electronics and appliance stores (-350); General merchandise stores (-350); Clothing and clothing accessories stores (-280); and Miscellaneous store retailers (-100) are all projected to shed jobs as physical locations are closed.

The Utilities sector is projected to shed 290 jobs as it continues to face upward pressure on compliance costs for Renewables Portfolio Standard (RPS) targets. However, production and investment tax credits will encourage the use of renewable energy as the sector adapts and invests in technological advancement to meet energy efficiency standards. Clean energy requirements will increase competition within the sector, driving costs down. Further, advances in technology will improve overall efficiency as residential, commercial, and industrial customers adopt energy efficiency plans. The growth in renewable energy will generate associated growth in the Construction and Professional and Business Services sectors.

Financial Activities: Included in this industry are the Finance and Insurance sector and the Real Estate and Rental and Leasing sector. Finance and Insurance is projected to add 1,585 jobs; most of the jobs are projected to come from Insurance carriers and related activities (+890); Securities, commodity contracts, and other financial investments and related activities (+280); and Credit intermediation and related activities (+280). The Financial Activities industry is a barometer of the entire economy; increased economic activities translate to more financial activities related jobs. As large swaths of baby boomers retire and average life expectancy rises, there will be increased demand for investment
and retirement guidance. This will allow for a greater number of advisory positions. The Real Estate and Rental and Leasing sector is projected to add 135 jobs. Increases in real estate-related jobs are projected to continue as the construction industry and housing market continues to grow. Strong growth in Professional and Business Services will continue to drive demand for commercial office and storage space leasing.

**Manufacturing:** In this sector, Food manufacturing is expected to add the most jobs: 2,645. Chemical manufacturing (+290), Wood manufacturing (+360), Fabricated metal product manufacturing (+255), and Furniture and related product manufacturing (+110) are also projected to gain jobs. Conversely, Machinery manufacturing (-1,210), Transportation equipment manufacturing (-750), Printing and related support activities (-275), and all other Manufacturing subsectors (-300) are projected to shed jobs. Overall, the sector is expected to net 1,135 additional jobs. Some manufacturing jobs are expected to return to the U.S. due to favorable changes to the corporate tax rate. Further, the Manufacturing sector in Iowa is expected to benefit from increased use of ethanol. Broader global economic growth, albeit at a slow rate, is expected to boost manufacturing exports. In addition, some manufacturers are expected to choose to remain within the U.S. because of favorable intellectual property protection.

**Self-Employed and Unpaid Workers:** This industry includes persons working without pay in family businesses, agricultural sector workers, volunteers, and unpaid interns. It is expected to add 1,115 jobs. Although the current trends do not show a decline in unpaid family workers, as employment in agriculture continues to decline, unpaid workers will likely decline accordingly.

**Educational Services:** This sector includes state and local public education as well as private schools and other providers of education. Initiatives to improve education at kindergarten and elementary levels and to ensure access for children will increase the overall demand for the education services as more students are pulled into the education system. Demand will continue to grow as the number of high school graduates increases and apprenticeships expand. Additionally, as larger numbers of older workers continue to postpone retirement and successfully up-skill and retool to adapt to technology in their fields, the sector will continue to add jobs. Educational Services is expected to add (+990) net jobs.

**Other Services:** This sector includes repair and maintenance firms, laundry services, and religious, civic and professional organizations. Other Services as a whole is expected to add 215 jobs from 2018–20. Repair and maintenance is expected to add 330 jobs; Personal and laundry services (+70) and Religious, grant making, civic, professional, and similar organizations (+155) are also expected to add positions. Private households, which are comprised of individuals who work as private employees, are expected to shrink by 340 jobs. Increases in the stock of industrial and non-residential buildings will drive demand for additional maintenance and related services occupations.

**Natural Resources and Mining:** Although the major core components of this industry are crops and livestock productions, our projections are for non-core establishments. These establishments include forestry, fishing, and mining companies. Forestry and logging (+5); Fishing, hunting, and trapping (+5); Mining (+20); and Support activities for agriculture and forestry (+70) are projected to add a total of 100 jobs. Global demand for meat consumption, coupled with strong domestic demand, will support livestock growth. Additionally, the push for renewable fuels and the introduction of year-round sales of high ethanol gasoline (E15) is favorable for corn production and therefore has huge potential to drive the need for corn production and related agricultural activities.

**Government:** Federal, state, and local government, excluding education and hospitals, are expected to shrink by 160 jobs. The federal government is expected to contract by 50 jobs and state government by 140 jobs. Most of the jobs at or in federal and state government will be eliminated through attrition. As government employees retire, agencies will increase use of technology to drive efficiencies while consolidating and restructuring some jobs. In addition, federal and state governments are expected to experience a slow reduction given the uncertainty surrounding the impact of tax cuts on revenues. Local government (+30) will experience moderate growth as municipalities work with state governments to increase education access.

**Information:** The Information sector is expected to shrink by 360 jobs. The losses are expected to occur in Publishing industries (-320); Broadcasting (-80); Telecommunications (-35); and Motion picture and sound recording industries (-30). The Information Sector is a rapidly evolving industry. The only subsector that is expected to add jobs is Data processing, hosting, and related services (+105). As companies adopt cloud computing to improve service and share data, this sector has good prospects for future jobs growth. The desire to invest in broadband to connect rural communities to urban communities has the potential to increase demand for data processing and related jobs.


Headwinds

These projections assume that uncertainty surrounding trade agreement between U.S. and China will be resolved and the United States–Mexico–Canada Agreement (USMCA) will be signed into law. According to the Census Bureau, Iowa exported $14.3 billion worth of goods in 2018. That is roughly 7.5 percent of Iowa’s $190 billion gross domestic product. Trade is important for Iowa’s economy and therefore policy uncertainty negatively impacts Iowa’s economy; in particular, it affects the Agriculture and Manufacturing sectors. Iowa requires a strong export market to support demand for finished products.

Some of the other headwinds include: a strong dollar, which typically weighs down exports by making them relatively more expensive; pressure from rising labor costs, squeezing corporate profit margins as labor continues to tighten; and declining commodity prices, which have been falling since 2014, a trend that will likely continue given that the USDA forecasts further drops in net income for farmers. In fact, the 2017 Census of Agriculture, released on April 11th, 2019, indicated that farmers’ net income dropped by 2 percent since 2012.

Demographic shift is another prevailing challenge for Iowa. The state has an aging population that could have adverse effects on long-term economic growth. A rapidly growing cohort of elderly population relative to working-age population puts a heavy burden on Social Security and other social services. Labor shortages are an immediate concern for manufacturing (particularly high-tech industries) and construction. We will expand on the interplay and impact of shifting demographics on jobs and the economy in our 10-year projections to be released in 2020.

Bibliography


The 2018 SOC – Changes and Implications

By Dawn Peterson

First published in 1980, the SOC (Standard Occupational Classification) system provides a homogenous process for classifying all jobs in our national economy, including public, private, and military positions, into occupational categories. It is used by a wide range of individuals. Students considering career options; school counselors; job training programs; people searching for jobs; employers wanting to know salary ranges in a particular area for purposes of making their wages competitive or starting a new business; and federal, state, and local government employees all find the information useful. If a federal agency publishes occupational data for statistical purposes, it must use the SOC. This makes the data comparable across agency lines.

Similar to the 2000 and 2010 editions, the revised 2018 SOC is organized into a four-level system. The first level consists of 23 major groups, which remained unchanged in the 2018 SOC.

The 23 major groups in the 2018 SOC system are:

11-0000 Management Occupations
13-0000 Business and Financial Operations Occupations
15-0000 Computer and Mathematical Occupations
17-0000 Architecture and Engineering Occupations
19-0000 Life, Physical, and Social Science Occupations
21-0000 Community and Social Service Occupations
23-0000 Legal Occupations
25-0000 Educational Instruction and Library Occupations
27-0000 Arts, Design, Entertainment, Sports, and Media Occupations
29-0000 Healthcare Practitioners and Technical Occupations
31-0000 Healthcare Support Occupations
33-0000 Protective Service Occupations
35-0000 Food Preparation and Serving Related Occupations
37-0000 Building and Grounds Cleaning and Maintenance Occupations
39-0000 Personal Care and Service Occupations
41-0000 Sales and Related Occupations
43-0000 Office and Administrative Support Occupations
45-0000 Farming, Fishing, and Forestry Occupations
47-0000 Construction and Extraction Occupations
49-0000 Installation, Maintenance, and Repair Occupations
51-0000 Production Occupations
53-0000 Transportation and Material Moving Occupations
55-0000 Military Specific Occupations

The second level consists of 98 minor groups, a net gain of one minor group from the 2010 SOC. The minor groups are broken down into 459 broad occupations, a net decrease of two from the 2010 SOC. Broad occupations are further broken down into 867 detailed occupations. Detailed occupations with similar job duties, skills, and education and training requirements are grouped together. Each occupation is classified into only one of the 867 detailed occupations. Of those 867 detailed occupations, 391 remained completely unchanged from the 2010 SOC, 355 had at least a definition change, 131 had at least a title change, and 115 had at least a code change. Most of the definition changes (254) were editorial revisions or clarifications that did not change occupational content. Major groups 29-0000 Healthcare Practitioners and Technical Occupations and 31-0000 Healthcare Support Occupations had significant revisions and additions. The major group title “Education, Training, and Library Occupations” (25-0000) was changed to “Educational Instruction and Library Occupations” to make clear not all positions at educational institutions should be placed in major group 25-0000. Likewise, not all instructors are included in 25-0000 (i.e. flight instructors-53-2010 and corporate trainers-13-1151). The minor group “Computer Occupations (15-1200, formerly 15-1100) also had major revisions and additions due to many changes in that field.
Seven detailed occupations moved from one major group to another:

- 19-5011 Occupational Health and Safety Specialists (formerly 29-9011)
- 19-5012 Occupational Health and Safety Technicians (formerly 29-9012)
- 27-3092 Court Reporters and Simultaneous Captioners (formerly 23-2091)
- 31-1122 Personal Care Aides (formerly 39-9021)
- 47-5022 Excavating and Loading Machine and Dragline Operators, Surface Mining (formerly 53-7032)
- 47-5044 Loading and Moving Machine Operators, Underground Mining (formerly 53-7033)
- 53-7065 Stockers and Order Fillers (formerly 43-5081)

There are 70 new detailed occupations. Thirty-two of the new detailed occupations are due to breakouts of previously existent detailed occupations in the 2010 SOC:

- 11-2032 Public Relations Managers
- 11-2033 Fundraising Managers
- 11-3012 Administrative Services Managers
- 11-3013 Facilities Managers
- 13-2022 Appraisers of Personal and Business Property
- 13-2023 Appraisers and Assessors of Real Estate
- 13-2054 Financial Risk Specialists
- 15-1243 Database Architects
- 15-1253 Software Quality Assurance Analysts and Testers
- 15-1255 Web and Digital Interface Designers
- 19-3033 Clinical and Counseling Psychologists
- 19-3034 School Psychologists
- 19-4012 Agricultural Technicians
- 19-4013 Food Science Technicians
- 25-2055 Special Education Teachers, Kindergarten
- 25-2056 Special Education Teachers, Elementary School
- 25-9042 Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education
- 25-9043 Teaching Assistants, Special Education
- 25-9049 Teaching Assistants, All Other
- 29-1242 Orthopedic Surgeons, Except Pediatric
- 29-1249 Surgeons, All Other
- 29-2042 Emergency Medical Technicians
- 29-2043 Paramedics
- 39-1014 First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services
- 47-5022 Excavating and Loading Machine and Dragline Operators, Surface Mining
- 53-1044 First-Line Supervisors of Passenger Attendants
- 53-1049 First-Line Supervisors of Transportation Workers, All Other
- 53-3051 Bus Drivers, School
- 53-3053 Shuttle Drivers and Chauffeurs
- 53-3054 Taxi Drivers

Twenty-seven of the new detailed occupations are due to breakouts of the 2010 “All Other” occupations:

- 11-9072 Entertainment and Recreation Managers, Except Gambling
- 11-9179 Personal Service Managers, All Other
- 13-1082 Project Management Specialists
- 15-2051 Data Scientists
- 17-3028 Calibration Technologists and Technicians
- 19-4044 Hydrologic Technicians
- 25-3031 Substitute Teachers, Short-Term
- 25-3041 Tutors
- 27-2091 Disc Jockeys, Except Radio
- 27-4015 Lighting Technicians
- 29-1212 Cardiologists
- 29-1213 Dermatologists
- 29-1214 Emergency Medicine Physicians
Eleven of the new detailed occupations are due to combining existing detailed occupations from the 2010 SOC:

- 15-1252 Software Developers
- 25-4022 Librarians and Media Collection Specialists
- 27-3023 News Analysts, Reporters, and Journalists
- 35-3023 Fast Food and Counter Workers
- 39-1013 First-Line Supervisors of Gambling Workers
- 45-3031 Fishing and Hunting Workers
- 47-5044 Loading and Moving Machine Operators, Underground Mining
- 51-9124 Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
- 51-9161 Computer Numerically Controlled Tool Operators
- 51-9162 Computer Numerically Controlled Tool Programmers
- 53-4022 Railroad Brake, Signal, and Switch Operators and Locomotive Firers

There are many detailed occupations from the 2010 edition of SOC that will no longer appear in the 2018 SOC. A complete list of these can be found at: https://www.bls.gov/soc/2018/home.htm.

Generally, implementation of the new 2018 SOC should lead to better data collection and analysis. Creating, breaking out, and combining occupations should also provide more descriptive detailed occupations. The new SOC will also affect wages for many detailed occupations. In addition to new data for new occupations, wages may increase or decrease for occupations that were broken out or combined. Implementation schedules for programs and agencies are updated on the U.S. Bureau of Labor’s website at https://www.bls.gov/soc/socimp.htm. Currently, the May 2021 publication will be the first of Occupational Employment Statistics (OES) data to have only the 2018 SOC codes. All other publications prior to that (2019 and 2020) will involve a hybrid of the 2010 and 2018 codes. This will subsequently affect the wages included in the Iowa Wage Report https://www.iowaworkforcedevelopment.gov/iowa-wage-report.

Bibliography

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