IOWA

IOWA WORKFORCE DEVELOPMENT

2023

IOWA'S WORKFORCE & ECONOMY

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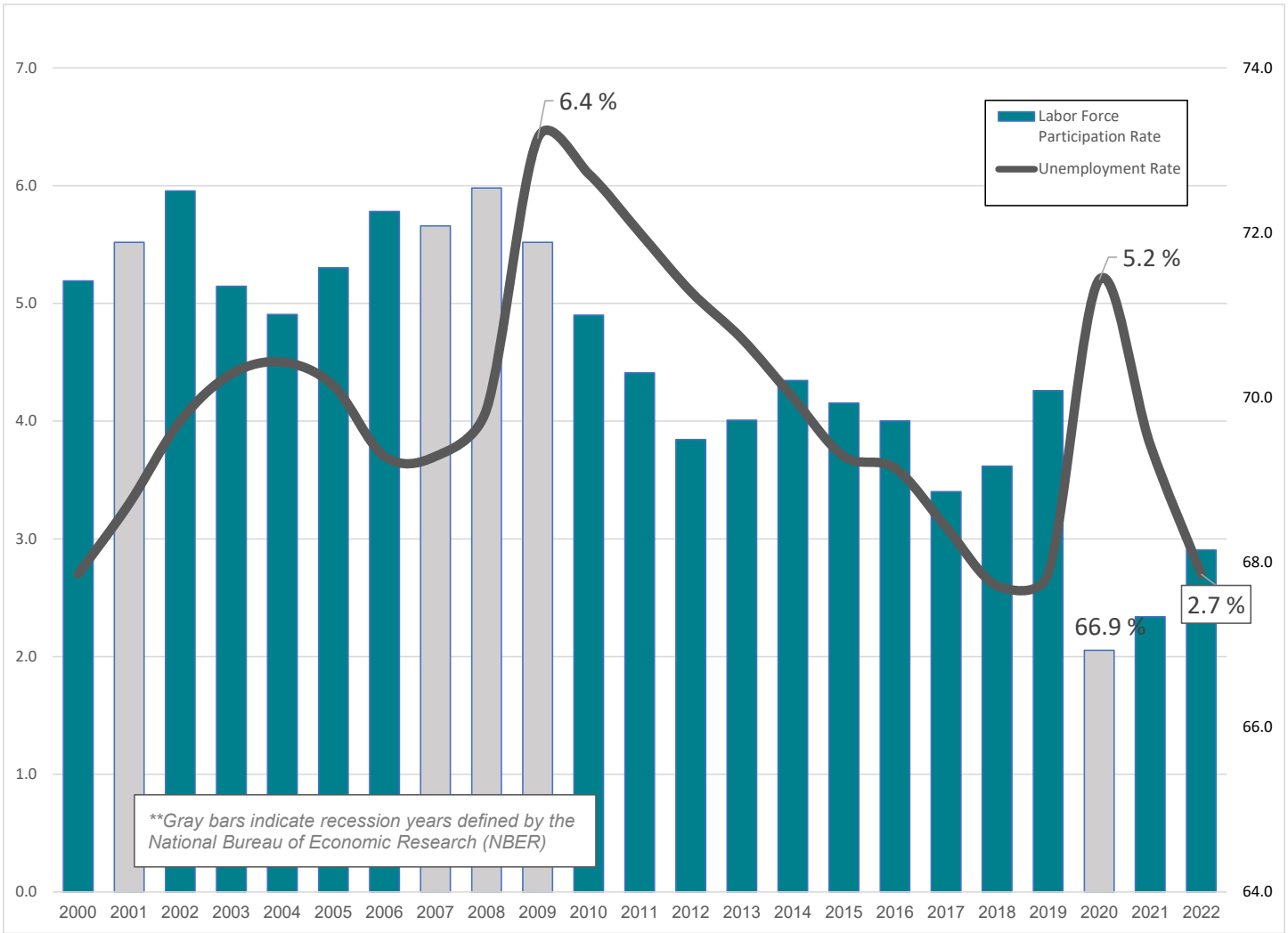
2022 Overview of the Iowa Economy

Written by James Morris

The Iowa economy ended its second year of expansion in 2022 and Iowa's businesses generally returned to business as usual. While the Coronavirus is still with us, it has become a manageable part of daily life and industry has adjusted accordingly. The labor force, unemployment, unemployment rate, and total nonfarm employment returned to levels similar to the pre-COVID expansion years. Unemployment insurance data also dropped to levels not seen in many years. Although economic barriers still exist, namely inflation, most industries added staff to their payrolls and most economic indicators were positive.

Labor Force participation, one exception, peaked in 2008 at 72.5 percent during the housing recession of 2007-2009 as the labor force was eager to hold on to a limited supply of jobs and employers were tightening their collective belts. The unemployment rate also peaked at 6.4 percent. In 2020, the labor force participation rate edged down to 66.9 percent with an unemployment rate of 5.2 percent (see figure below) as the public reassessed their career priorities, baby boomers retired, and many job seekers decided to wait on the sidelines until the COVID virus ran its course.

Iowa's Labor Force Participation Rate vs. the Unemployment Rate



Source: Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS))

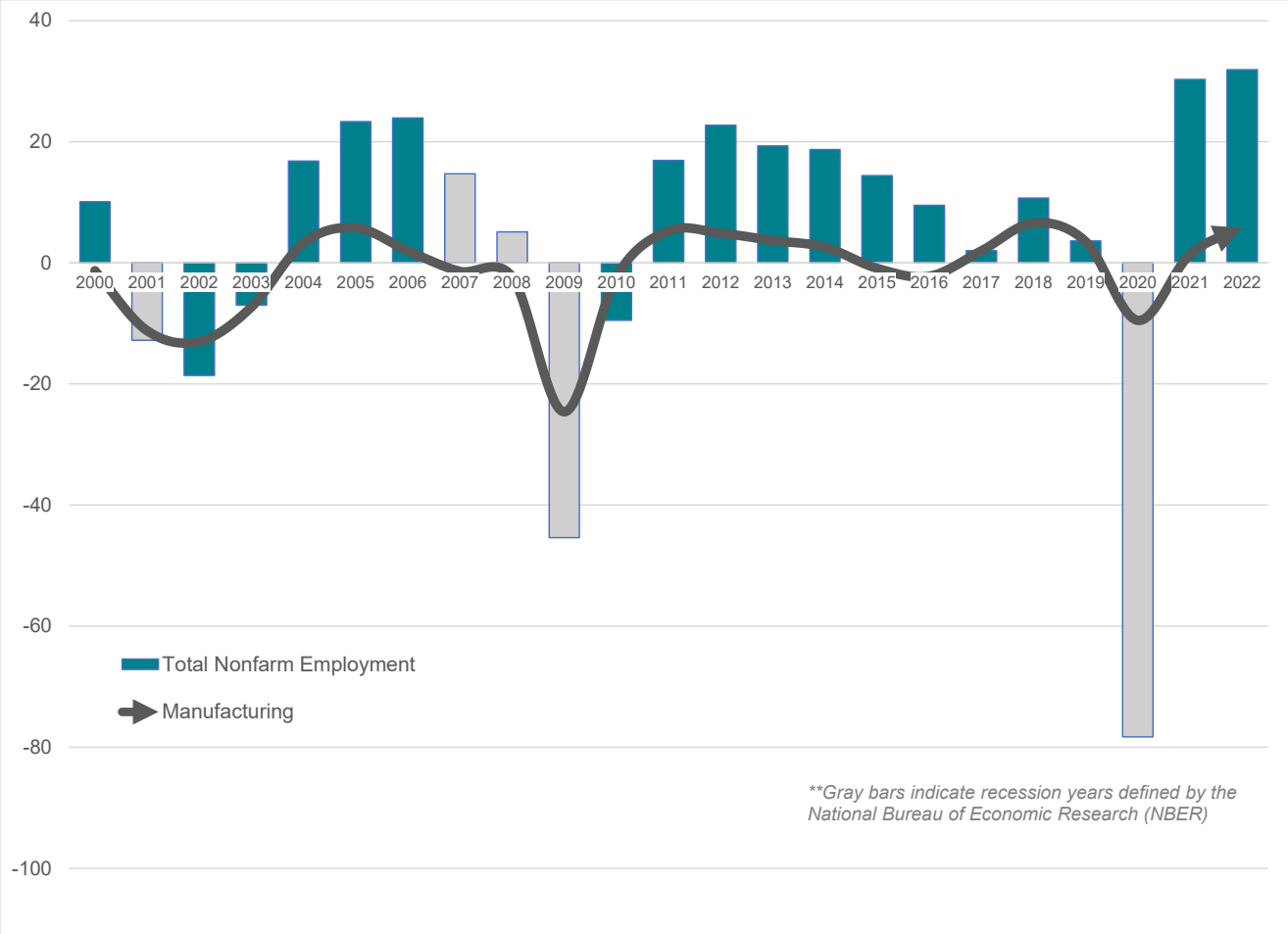
**See the *National Bureau of Economic Research (NBER)* for official recession dates http://www.nber.org

Within total nonfarm employment, jobs were added in virtually all sectors in this past year leading to an increase of 31,900 jobs in Iowa in 2022, this follows similar increase in 2021 and equating to an increase of 62,200 jobs gained since 2020. Urban areas, defined as metropolitan statistical areas (MSAs), led the expansion with over three quarters (76.8 percent) of all jobs gained. While the past few years have been prosperous for urban economies, with payroll levels eclipsing pre-pandemic levels in 2023, rural areas have been an exception, with total nonfarm employment levels peaking in 2015. Part of the reason for this decline can be due to job seekers moving to urban areas when pursuing new career opportunities—a trend that is common not just in Iowa but throughout the nation.

Urban economies represented 58.4 percent of all payroll jobs in 2022; rural counties comprised 41.6 percent of all total nonfarm jobs, down from 47.7 percent in 2000.

Several sectors within total nonfarm employment hit all-time highs in 2022: construction; non-durable goods manufacturing; transportation, warehousing, and utilities; and professional and business services. Manufacturing, one of the backbones of Iowa's economy, added 5,800 jobs in 2022 and outpaced the state's annual growth rate 3.0 percent versus 2.1 percent for total nonfarm employment. This sector typically drives the state's economy (see figure below); however, this recent COVID-related recession was an exception. In 2001, manufacturing layoffs represented 87.5 percent of all total nonfarm jobs lost. In 2009, this number decreased to just 54.2 percent of all total nonfarm employment jobs lost. By contrast, only 10.7 percent of all jobs lost in 2020 were related to manufacturing as the COVID social distancing measures largely affected service industries. Leisure and hospitality, the hardest hit of all sectors both in Iowa and nationwide, shed almost half of all payroll jobs in April of 2020 but has since rebounded and is forecast to surpass pre-pandemic levels in 2023.

Iowa's Manufacturing Sector vs. Total Nonfarm Employment, 2000-2022



Source: Bureau of Labor Statistics (BLS), Current Employment Statistics (CES))
**See the *National Bureau of Economic Research (NBER)* for official recession dates http://www.nber.org

Several indicators showed some improvement in 2022; however, there were a few notable exceptions:

- Iowa's exports increased by 15.0 percent in 2022 following a gain of 26.1 percent the prior year and totaled $26.7 billion in 2022[1]. Oil seeds and misc. grain exports, the largest export for Iowa, added almost 1 billion in sales versus 2021 and totaled $4.8 billion in exports in 2022. The state's next two largest exports, cereals and meat and edible meat offal combined saw exports shrink compared to the prior year (-1.9 percent or -$117.5 million) from 2021 to 2022.

- State per capita personal income grew by 3.2 percent in 2022, down from 7.1 percent in 2021. Although these growth rates are relatively high given the prior ten years for the state, the gains either closely matched the consumer price index (CPI) gains in 2021 or were less than the CPI increase in 2022. (Bureau of Economic Analysis (BEA), 2023)

- Unemployment insurance weeks compensated fell to the lowest levels in over 40 years and totaled just 551,600 in 2022, down from 1.0 million in 2021 and the historical high of 3.9 million reached in 2020.

- Iowa's new residential housing units authorized scaled back from a recent high in 2021 (-12.3 percent) and totaled 12,711 in 2022. This value exceeds the prior ten-year average of 12,087 for units authorized for Iowa. (U.S. Census Bureau, 2023.

    - Construction gained 2,900 jobs in 2021 to leave this sector at an all-time high for 2022 at 81,200 jobs.

- New vehicles registered were a concern in 2022 as registrations dropped to their lowest levels since 2010[2]. This may be evidence of consumers skipping big ticket purchases either in anticipation of declining economic conditions, forgoing big ticket purchases that require financing due to the CPI and interest rates being historically high, or simply a case of consumers refusing to pay perceived elevated prices for big ticket purchases due to supply chain issues. (Verdon, 2023)

- The current consumer price index (CPI) decreased to 6.2 percent, down from 7.0 percent in 2021. While this is some improvement versus last year, this value is still the highest in many years and may continue to be a drag on big ticket purchases (see new vehicle registrations above).

Inflation Inhibits Expansion

One barrier to economic prosperity has been the rising inflation rate the U.S. and the world has experienced in the wake of the COVID shutdown. Elevated prices in Germany have already slowed their economy to the point of recession as gross domestic product for the nation fell in consecutive quarters beginning in the fourth quarter of 2022 as consumers reigned in household spending to combat rising prices (Martinez, 2023).

In the U.S., the consumer price index (CPI) is the Bureau of Labor Statistics' measure for inflation, measuring price changes over time for a market basket of goods paid for by urban consumers. Typically, some increase is expected annually with the typical increase for the U.S. averaging 2.1 percent from 2000 through 2020. This value began to rise in June of 2020 unexpectedly while the nation was still adjusting to new social distancing measures due to COVID. Several possible reasons could be given for why inflation hit:

- Increased demand for goods from consumers putting pressure on goods-producers to increase output.

- Supply chain issues due to factory shutdowns during the pandemic driving up prices.

- Oil price spikes leading to input price increases for both producers and consumers.

[1]Data for Iowa Exports provided by the Iowa Economic Development Authority (IEDA, 2022).
[2]Data for new vehicle registrations provided by the Iowa Department of Transportation (IDOT, 2022).

The largest increases in prices through 2022 were with eggs (+59.9 percent) followed by fuel oil (+41.5 percent). The price of energy alone has outpaced the inflation rate for all items 7.3 percent to 6.5 percent, respectively. (Iacurci, 2023). Lingering high prices could continue to limit consumer purchases for automobiles, airfare, furniture, and even food away from home, all of which exceeded the average inflation rate for all goods.

Federal reserve officials began targeting inflation in the first quarter of 2022 with a series of rate hikes designed to halt the eroding purchasing power of Americans while still avoiding a recession. Preliminary evidence suggests that these rate increases are having some impact with the CPI dropping to 6.2 percent from 7.0 percent in 2021.

Looking Forward

Economic growth is expected to continue in some measure through 2023, but there are still barriers that exist beyond inflation. The Institute for Supply Management (ISM) index signaled sluggishness for manufacturing in 2023, leading some economists to believe a recession may be on the horizon (Mutikani, 2023). Despite this, manufacturing employment increased by 5,800 jobs (+2.7 percent) in 2022. New vehicles registered in Iowa, an indicator of consumer demand, retreated to an annualized low not seen since 2010 when the nation was also dealing with the aftermath of the great recession and consumers were apprehensive about big ticket purchases. While concerning, this measure was countered by a stronger-than-expected number of new residential housing units authorized in 2022, providing evidence that consumers aren't yet deterred by elevated interest rates in the short term.

While total nonfarm employment continues to climb and the state's unemployment rate dropped to levels achieved pre-COVID, the labor force participation rate (LFPR) has fallen to levels that, while high compared to the U.S., are unusually low for Iowa. This decline is likely due to retirements coupled with changing career paths and equates to several thousand workers who are no longer in the labor force, unavailable for hire by Iowa's employers. This shortfall will need to be addressed either by raising wages to entice retirees to reenter the workforce or by attracting workers from neighboring states through higher wages.

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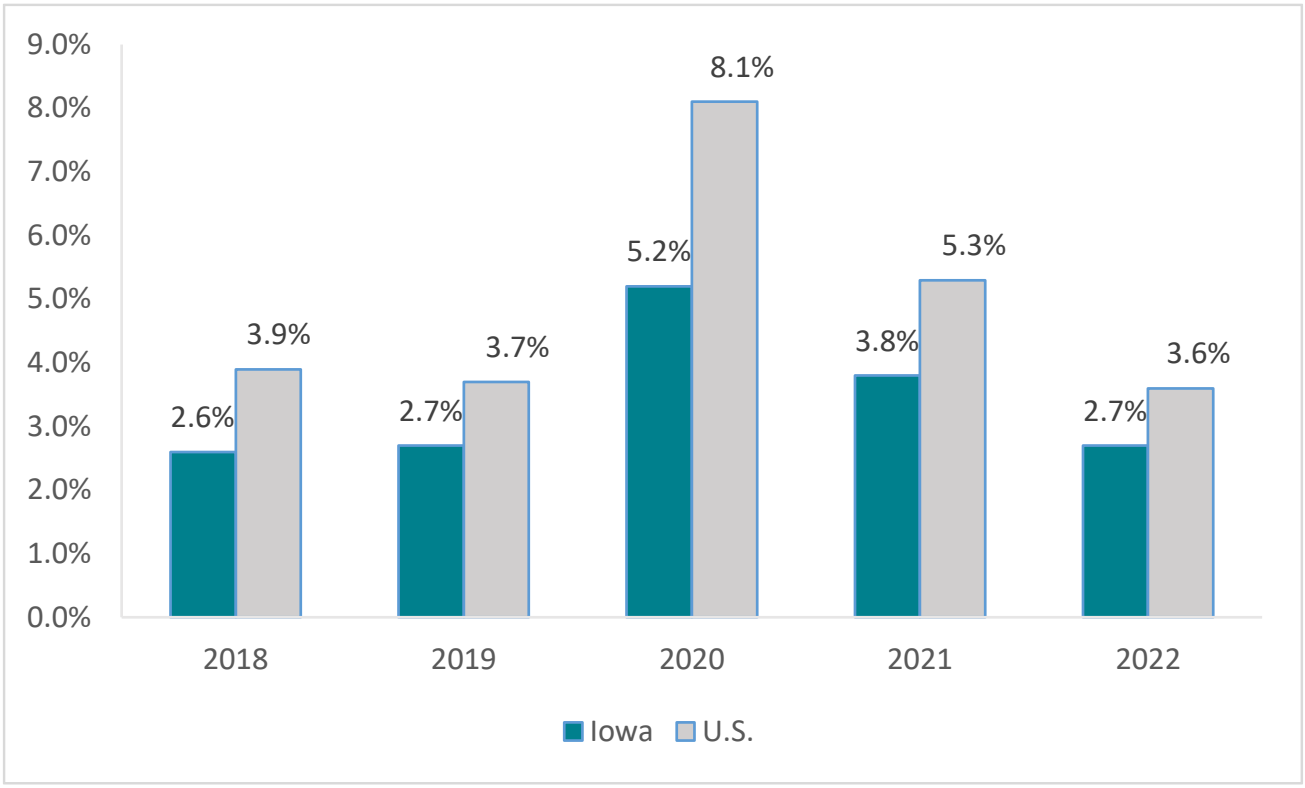
State and Local Labor Force Trends

Written by Kris Henze

Iowa continued recovering from the pandemic during 2022. The statewide annual average unemployment rate decreased to 2.7 percent in 2022 from 3.8 percent in 2021. The U.S. rate for 2022 decreased to 3.6 percent from 5.3 percent for the prior year. Based on the state rankings for 2022, North Dakota and South Dakota tied for the lowest jobless rate among the states at 2.1 percent. Idaho, Iowa, Kansas and Minnesota tied for tenth and Nevada had the highest unemployment rate at 5.4 percent.

Iowa and U.S. Unemployment Rates, 2018-2022



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

The number of unemployed persons in the state averaged 47,000 in 2022, down from the prior year's 64,200. Men accounted for 59 percent of the unemployed compared to 41 percent for women.

Minorities and youth continued to experience the highest rates of unemployment: youth, 16 to 19 years (6.1 percent), Black or African American (8.1 percent) and Hispanic (6.0 percent).

Workers with less education continued to experience a higher unemployment rate than further educated members of the labor force: those with less than a high school diploma (6.1 percent), high school graduates with no college (2.2 percent), some college or associate degree (2.1 percent) and bachelor's degree and higher (1.4 percent).

Unemployment Rates in Metropolitan Statistical Areas (MSAs) for 2022

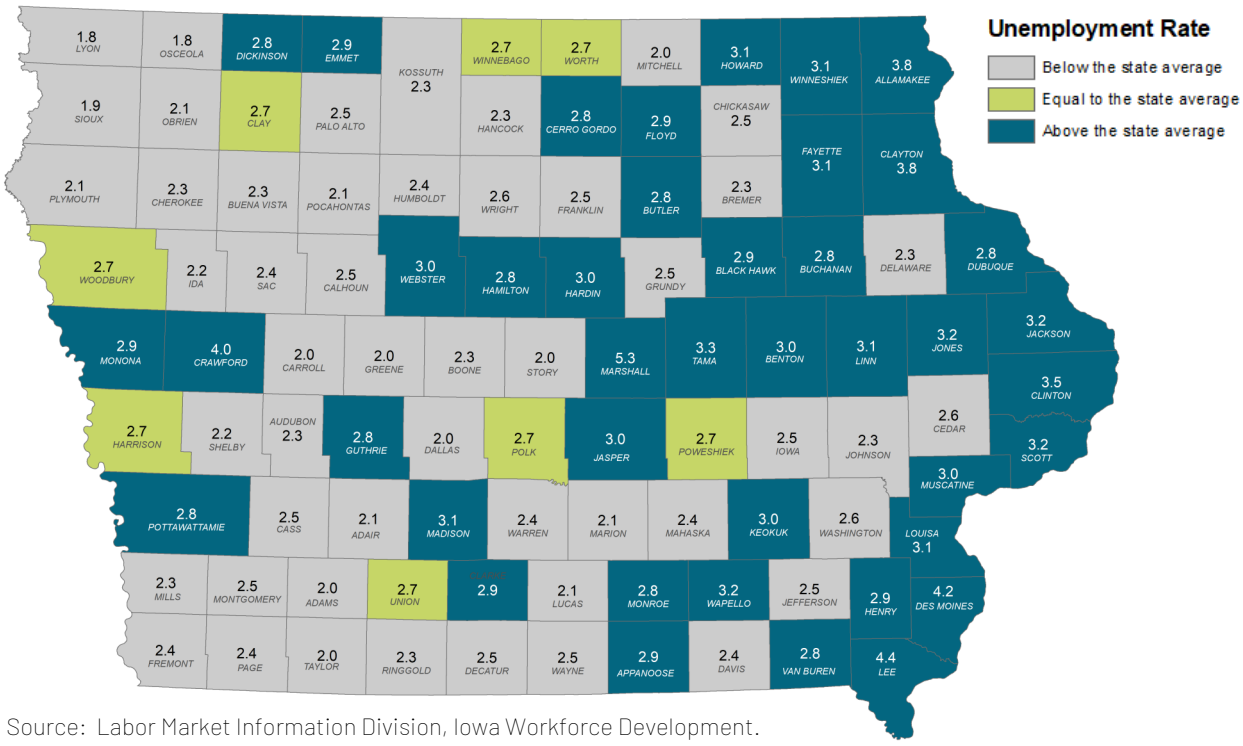
All the state's metropolitan statistical areas (MSAs) experienced a decrease in their unemployment rates for the second year in a row. County unemployment rates decreased in all 99 counties from 2021 to 2022. The Ames MSA had the lowest rate of the nine major labor market areas at 2.0 percent. The Davenport-Moline-Rock Island MSA had the highest jobless rate at 3.8 percent. Jobless rates for all 99 counties ranged from a low of 1.8 percent in Lyon and Osceola Counties to a high of 5.3 percent in Marshall County.

Metropolitan Statistical Area (MSA)
Labor Force Summary 2022 Annual Averages

Metropolitan Statistical Area (MSA)	Labor Force	Employed	Unemployed	Unemployment Rate	
				2021	2022
Ames	59,700	58,500	1,200	2.7	2.0
Cedar Rapids	145,200	140,700	4,400	4.4	3.1
Davenport-Moline-Rock Island*	187,600	180,500	7,000	5.2	3.8
Scott County (Iowa Portion)	89,000	86,200	2,800	4.9	3.2
Des Moines-West Des Moines	376,400	366,700	9,700	3.8	2.6
Dubuque	56,500	54,900	1,600	4.0	2.8
Iowa City	98,700	96,400	2,300	3.4	2.3
Omaha-Council Bluffs*	506,300	493,300	12,900	3.1	2.6
Harrison County (Iowa portion)	7,200	7,000	200	3.5	2.7
Mills County (Iowa portion)	7,200	7,000	200	3.2	2.3
Pottawattamie County (Iowa portion)	48,000	46,700	1,300	3.8	2.8
Sioux City*	94,100	91,700	2,400	3.5	2.6
Woodbury and Plymouth Counties (Iowa portion)	71,300	69,400	1,900	3.6	2.6
Waterloo-Cedar Falls	88,500	86,000	2,500	3.9	2.8

*Metropolitan Statistical Area includes counties in neighboring state.
Source: Labor Market Information Division, Iowa Workforce Development.

2022 Annual Average Unemployment Rates by County

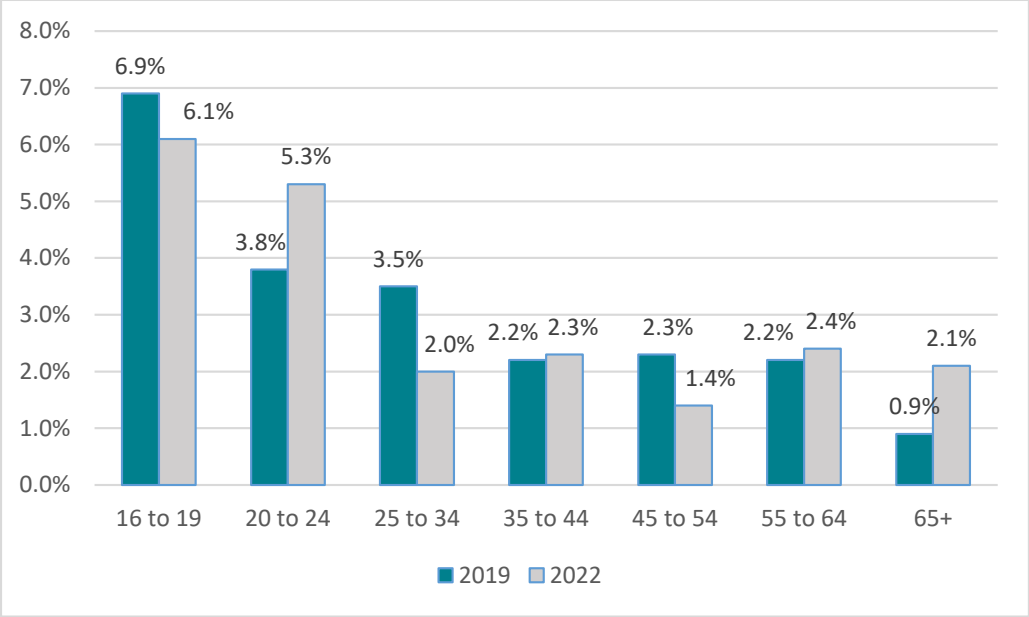


Source: Labor Market Information Division, Iowa Workforce Development.

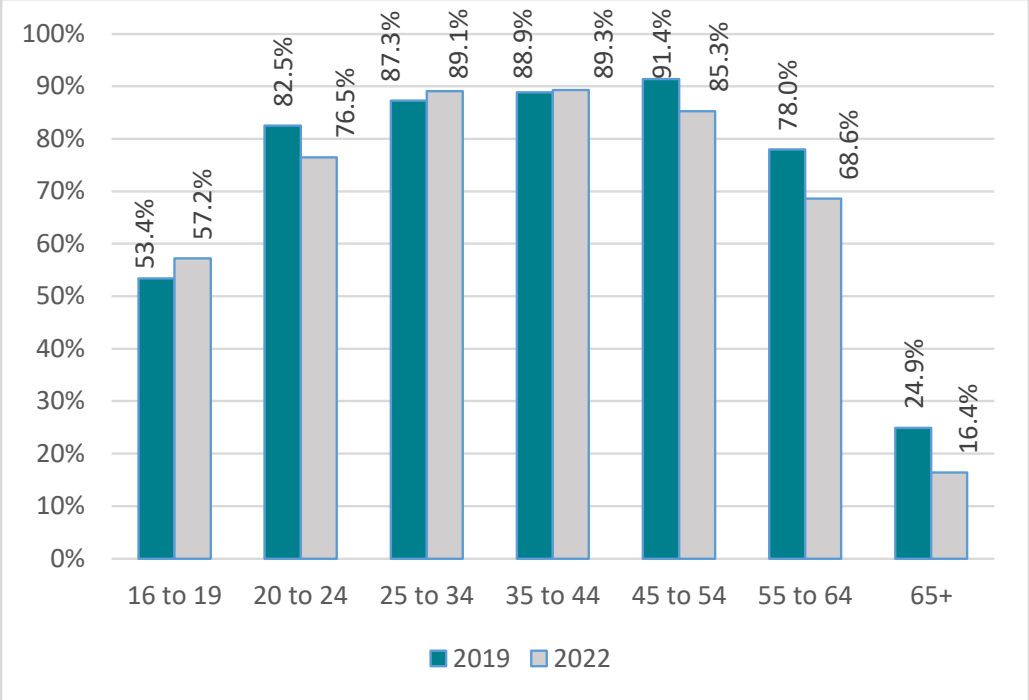
Three age groups have unemployment rates less than their pre-pandemic levels. The 25 to 34 year olds had the greatest improvement with their unemployment rate dropping 1.5 percentage points. The unemployment rates for all age groups decreased from 2021 to 2022.

Three of the age groups saw their labor force participation rates increase over pre-pandemic rates. The 16 to 19 year olds had the greatest improvement with their labor force participation rate increasing 3.8 percent.

Unemployment Rates by Age Group



Labor Force Participation Rages by Age Group



Source: Census Bureau, Current Population Survey

Total Nonfarm Employment Year at a Glance

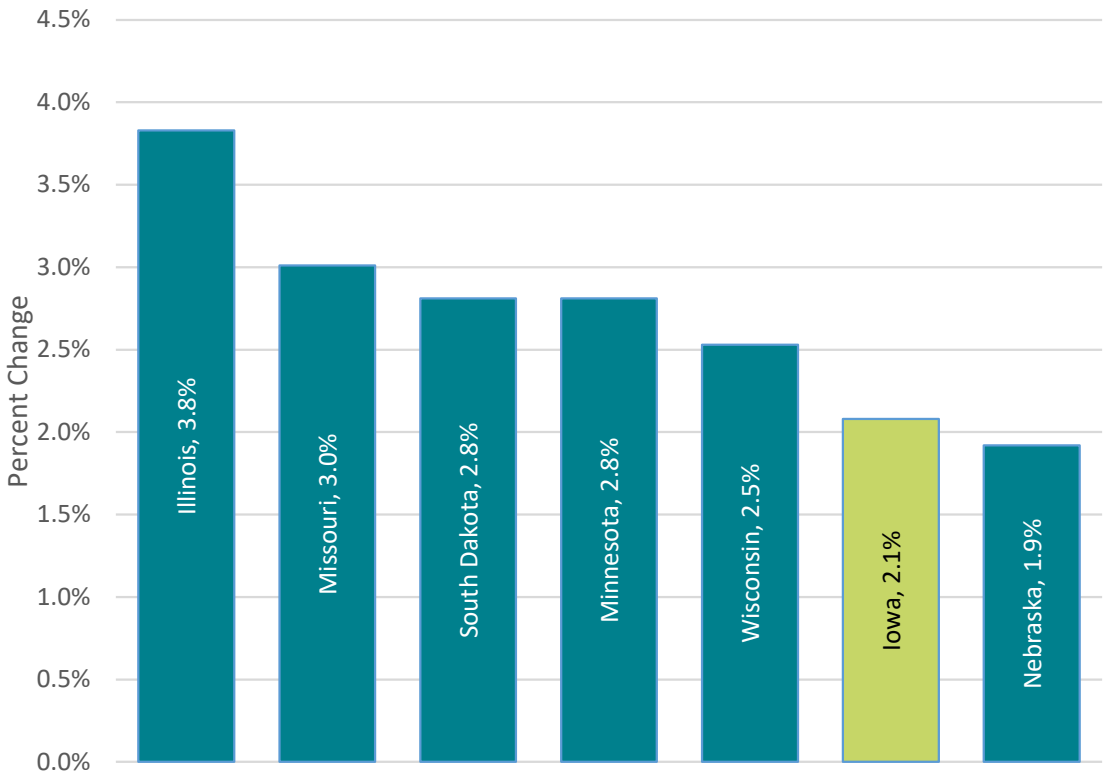
Written by Dennis Schwartz

Iowa's employment demonstrated a positive trend through the year with gains in all but four months. Losses experienced in those four months were negligible as the year ended with a gain of 29,900 jobs. The December 2022 employment level of 1,583,000 is 1,100 above the March 2020 level, the last month prior to the calamitous job losses caused by the Covid-19 restrictions.

Employment in the leisure and hospitality sector provided the biggest boost to total nonfarm employment, adding 8,600 jobs from the previous year (based on annual averages). Employment in the sector trended downward from March to May but rebounded strongly with gains each month from June to December.

When compared to surrounding states, Iowa's rate of employment gain ranked sixth out of a seven-state field. All surrounding states experienced employment gains with Illinois leading the pack with a 3.83% gain. Iowa's rate of gain was 2.08%, just above Nebraska's 1.92% gain. In 2020, Iowa was in the middle of the pack regarding employment losses.

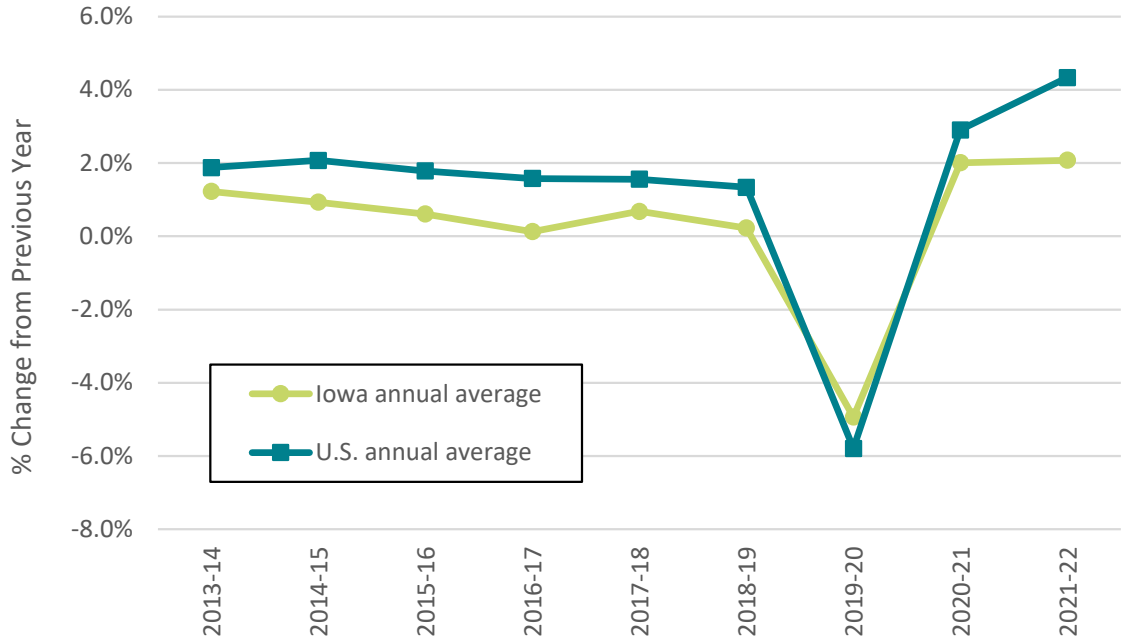
Employment Percent Change 2021 to 2022



Source: U.S. Bureau of Labor Statistics

For eight of the last nine years, the national annual rate of employment growth has out-performed that of Iowa. The only exception was 2019 to 2020 when Iowa's rate of contraction was lower than the national rate of contraction. In 2022, the nation's rate of growth was 4.34%, compared to Iowa's 2.08%.

Iowa/U.S. Total Nonfarm Employment (Annual Percentage Change)



Source: U.S. Bureau of Labor Statistics

Nonfarm Employment Industry Movement

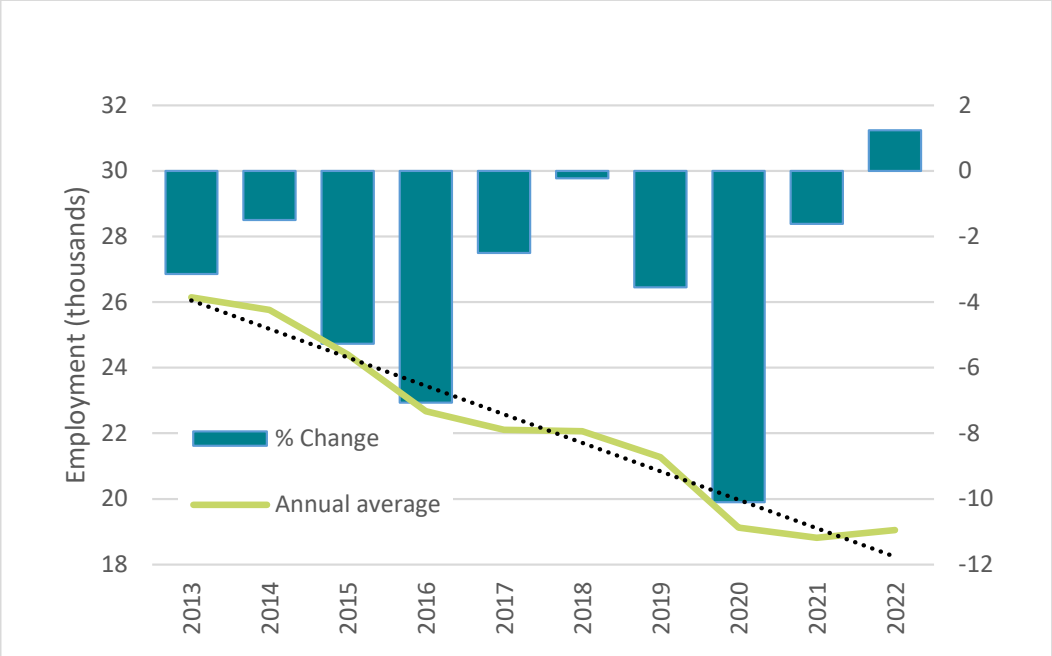
As previously implied, leisure and hospitality led all super-sectors in percent gain in employment from 2021 to 2022 adding 6.69% to the annual average, which translates to 8,600 jobs. The super-sector trimmed 200 jobs in March, 600 jobs in April and 400 jobs in May, the only exceptions to an otherwise productive year. The super-sector employment has been slow to recover from the calamitous employment loss in April 2020 and the current employment level remains below the March 2020 value, but relatively consistent gains have been achieved, ending the year just 600 jobs below that March 2020 level.

Professional and business services employment gained 3.46% (+4,900 jobs) based on annual averages. The sector was boosted by the management of companies sub-sector which added 6.78%. It is noteworthy that this sub-sector is the only sub-sector with six consecutive years of gains and one of only two sub-sectors that were largely unaffected by the Covid-19 employment losses. The other sub-sector is federal government.

Manufacturing enjoyed its' largest year-to-year gain since 2018, adding 5,800 jobs (+2.64%) with the majority of those jobs in the durable goods sub-sector (+3.600). The sector has struggled to regain the jobs lost in 2020 as a result of the pandemic and currently falls 2,300 jobs short of the 2019 annual average, however the December 2022 employment of 224,200 is 800 jobs above the March 2020 level.

The information sector had experienced declining employment for several consecutive years until this year, when the sector cultivated its' first year-to-year employment gain since 2007. While the increase in sector employment is a favorable change, it would be premature to state that the tables have turned for sector employment, so we view the increase with cautious optimism in hopes this is the beginning of a new upward trend. There is much ground to recover as employment remains 43.15% (-14,500 jobs) below its' peak value achieved in 2007.

Information Employment



Source: U.S. Bureau of Labor Statistics

Other Economic Indicators

Corn prices again offered some much-needed relief for the agriculture industry through the year based on Iowa State University Extension & Outreach data (annual averages). The price Iowa farmers received for corn averaged $6.86 per bushel in 2022, up $1.38 (25.18%) from 2021. This is less than half of the percentage increase seen in 2021, although the current annual average is the highest in recent history, exceeding the $6.68 annual average per bushel seen n 2012. The price of soybeans also made a reasonable percentage gain with a 12.3% increase. The 2022 average price per bushel was $14.75, adding $1.62 from the previous year. At its peak in 2022, achieved in June, soybeans were selling for $16.20 per bushel.

According to the Iowa Association of Realtors, home sales in Iowa decreased 12.1% from 2021 to 2022. The number of closed sales moved from 43,340 in 2021 to 38,113 in 2022. The average sale price of homes, $250,342, represents an increase of 8.1% from 2021.

According to 2021 data (the latest available) 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, increased 8.4% (1,063 units). This marks the third consecutive year of gains in permits issued (all structures). The total value of permits issued increased 17.8%.

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2022-2024 Iowa Job Outlook

Written by Brent Paulson

Occupational Group Projections Place the COVID-19 Pandemic in Rearview Mirror

Much of Iowa's labor data from the past four years indicate that annualized occupational group estimates have greatly rebounded from the COVID-19 coronavirus pandemic that rocked the economy beginning in March 2020. As reported, the pandemic caused drastic cuts across most occupational groups precipitating severe economic disruption amongst the business community and the consumer alike. The greatest employment level reductions took place in 2020 from their pre COVID-19 2019 base level.

An economic turnaround was in the works however. As many small businesses succumbed to negative economic activity, heavy public investment, low interest rates, creative marketing, and strict adherence to safety protocols enabled many other small businesses to survive. Forward progression towards pre-pandemic employment levels ensued from the depths of 2020 with impressive gains achieved in 2021 and 2022. The table below provides an overview of successive annual state of Iowa occupational group estimates from 2019 through 2022.

As the table below shows, hardest hit year-to-year occupational group estimates derived from 2019 to 2020. In fact, fourteen of twenty-two occupational groups (primarily in service and production) experienced employment reductions. From 2021 to 2022, however, all occupational groups (except Community & Social Service, Education, and Office & Administrative) saw increased employment (with many being significant). The major take-away is that Iowa's 2022 estimates reveal that fifteen of twenty-two occupational groups have exceeded the pre pandemic estimate levels of 2019 with many others (including Food Prep, Building & Grounds Cleaning, Personal Care, & Sales) increasing ever closer.

Occupational Group Estimate Change from 2019 to 2022

Occupational Title	2019 Est	2020 Est	2021 Est	2022 Est	Change '19 to '22
Total, All Occupations	**1,810,940**	**1,699,340**	**1,790,045**	**1,839,300**	**28,360**
Management	171,740	167,765	171,840	173,570	**1,830**
Business & Financial Operations	73,865	74,565	80,475	88,650	**14,785**
Computer & Mathematical	36,620	39,720	41,390	49,685	**13,065**
Architecture & Engineering	21,310	21,805	22,285	23,230	**1,920**
Life, Physical, & Social Science	13,270	13,245	13,560	14,365	**1,095**
Community & Social Service	27,860	27,435	29,055	25,500	**-2,360**
Legal	9,035	8,995	8,945	9,105	**70**
Education, Training, & Library	129,535	118,730	121,765	117,690	**-11,845**
Arts/Design/Entertainment/Sports/ Media	26,285	25,455	25,835	26,480	**195**
Healthcare Practitioners & Tech	94,395	88,880	89,200	94,905	**510**
Healthcare Support	47,150	52,055	63,365	66,450	**19,300**
Protective Service	22,745	22,340	23,720	24,880	**2,135**
Food Preparation & Serving Related	137,290	103,035	126,585	131,650	**-5,640**
Building/Grounds Cleaning & Maintenance	59,280	51,915	54,970	58,660	**-620**
Personal Care & Service	54,995	37,165	41,260	44,745	**-10,250**
Sales & Related	173,220	157,580	168,870	169,300	**-3,920**
Office & Administrative Support	241,060	209,150	214,830	211,310	**-29,750**
Farming, Fishing, & Forestry	19,280	19,555	19,665	21,820	**2,540**
Construction & Extraction	75,805	80,200	82,850	86,395	**10,590**
Installation, Maintenance, & Repair	72,355	73,015	74,925	75,165	**2,810**
Production	163,020	147,760	150,730	157,075	**-5,945**
Transportation & Material Moving	140,820	158,975	163,920	168,675	**27,855**

Source: Iowa Workforce Development, Labor Market Information Division

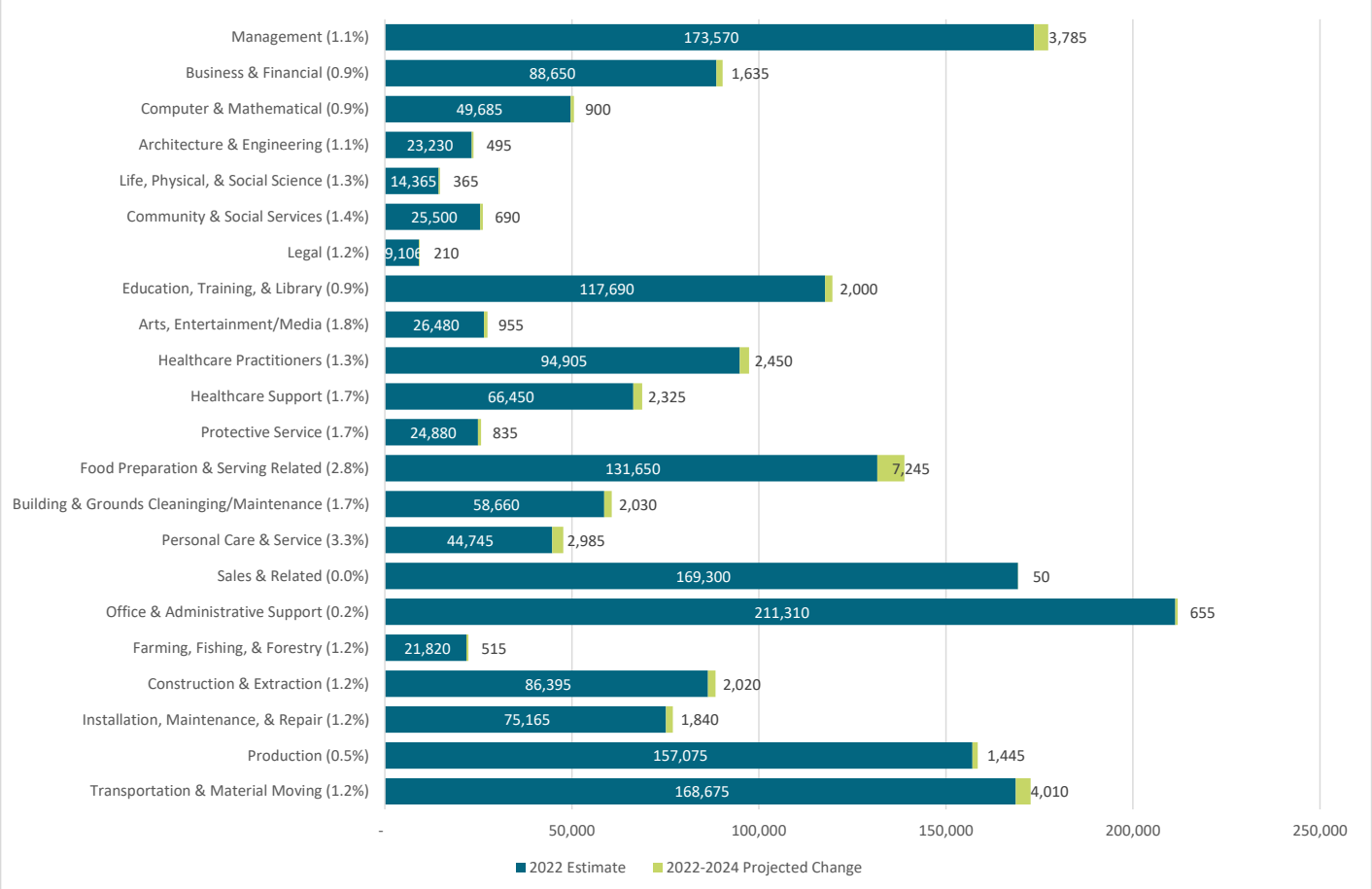
2022-2024 Occupational Projections

As discussed previously, Iowa's 2022 occupational group estimates for the most part have exceeded the 2019 estimates. The rate of growth, however, dropped from 3.8% in 2020 to a more normalized 1.1% in 2022. This reflects Iowa's return to a more moderate 1-2% historical annual growth rate pattern commensurate of its population growth. In essence, Iowa's economic state of equilibrium rests not on being first in cutting edge technological and nation-leading industries but rather low to moderate in adoption. Such incorporation leaves Iowa with a less turbulent, up-and-down economy with a more predictable and stable one.

Despite the production of jobs, low unemployment, and a spending public, recessionary economic headwinds remain apparent including chronic inflation, rising interest rates, and a tepid consumer base. There have been notable federal legislative action including the American Rescue Plan and Inflation Reduction Act that aim to steer the economy towards greater sustainability, cost reduction, and job creation. In addition, the Federal Reserve, tasked to keep inflation, growth, and employment on track, has successfully created a downward trend through dogged efforts to curb inflation through incremental interest rate hikes.

At the state level, Iowa's 2022 base employment estimate of nearly 1.9 million projects to grow modestly at 1.1 percent between 2022 and 2024 resulting in 39,465 new jobs. Forecasts show broad, uneven growth across all occupational groups with many hardest hit groups rebounding most fervently. As depicted in the figure below, occupational groups meeting or exceeding the state's 1.1 percent growth rate include Management, Architecture & Engineering, Life-Physical-Social Science, Community & Social Service, Legal, Arts-Design-Entertainment-Sports-Media, Healthcare Practitioners, Healthcare Support, Protective Service, Food Preparation, Building & Grounds Cleaning, Personal Care, Farming-Fishing-Forestry, Construction & Extraction, Installation- Maintenance-Repair, and Transportation-Material Moving.

2022-2024 Occupational Group Projections by Number and Percent



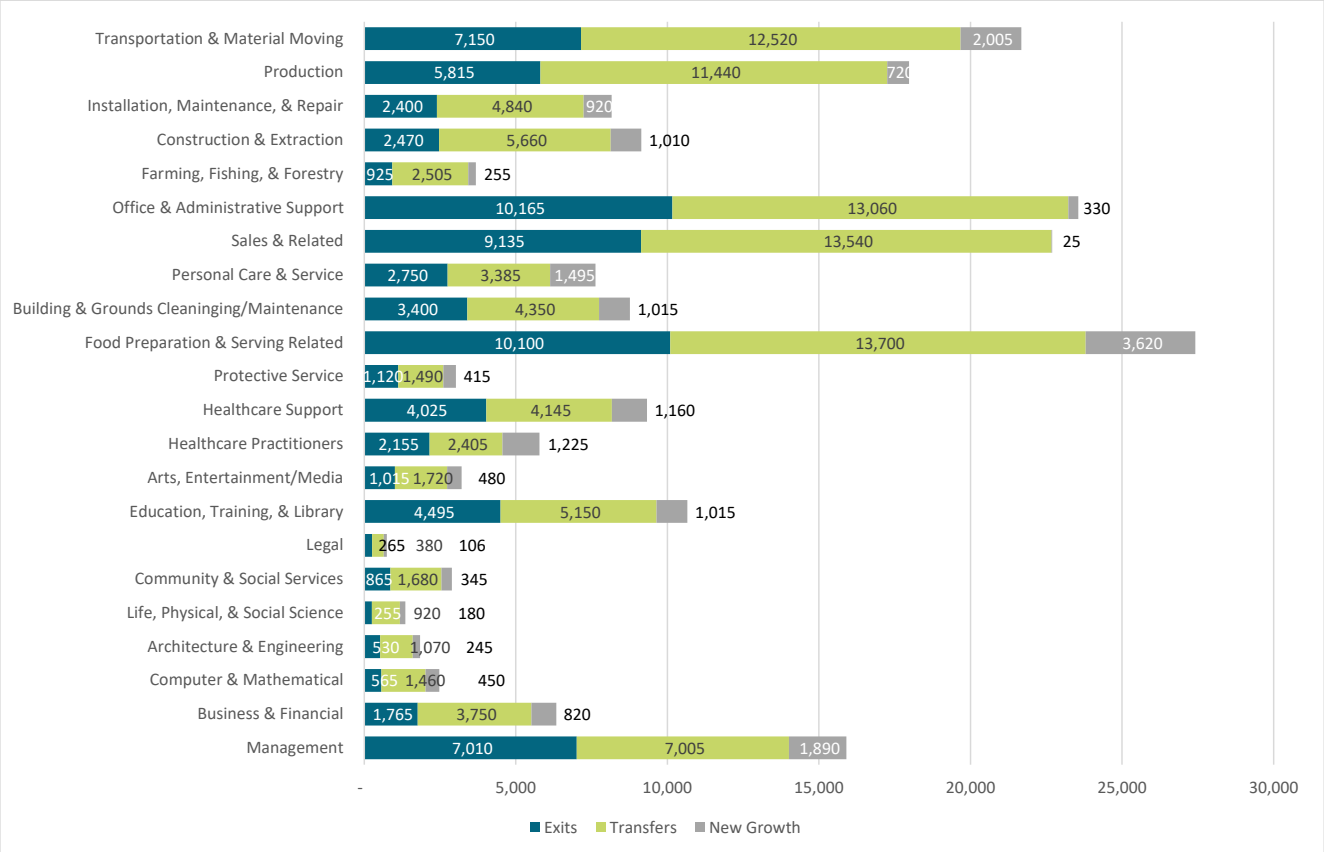
Source: Iowa Workforce Development, Labor Market Information Division

Occupational Openings: Exits, Transfers, and New Growth Jobs

Annual job openings and separations can appear as new growth jobs (projected number of new jobs due to growth), exits (projected number of workers leaving an occupation and exiting the labor force), or transfers (projected number of workers leaving an occupation and transferring to a different occupation). Due to unforeseen pandemic recovery dynamics, the previous 2020-2022 occupational projections provided much variability amongst occupational groups regarding job openings and separations. Mobility was common as transfers were predominant in most occupational groups. Yet, occupational groups like Education and Management, for example, faced higher exit numbers (than transfers and new growth jobs) and Personal Care, Building/Grounds Maintenance, Food Prep, Protective Service, and Healthcare Practitioner led in new growth. Efficiency became crucial for employee retention and remaining solvent in many small business' pandemic recovery efforts.

The 2022-2024 occupational projections, as the figure below illustrates, reverts to a model reflecting transfer-heavy job openings and separations. In fact, transfers were the most common form of separation (and/or job opening) followed by exits and new jobs in all occupational groups. No doubt, an extremely low unemployment rate provides the basis for such occupational mobility as workers with prerequisite skills are confident in obtaining jobs to their liking. As a result, employers are finding it necessary to adapt by providing increased job benefits (including pay) to attract workers and/or employing greater automation for better efficiencies.

Exits, Transfers, and New Growth Jobs by Occupational Group



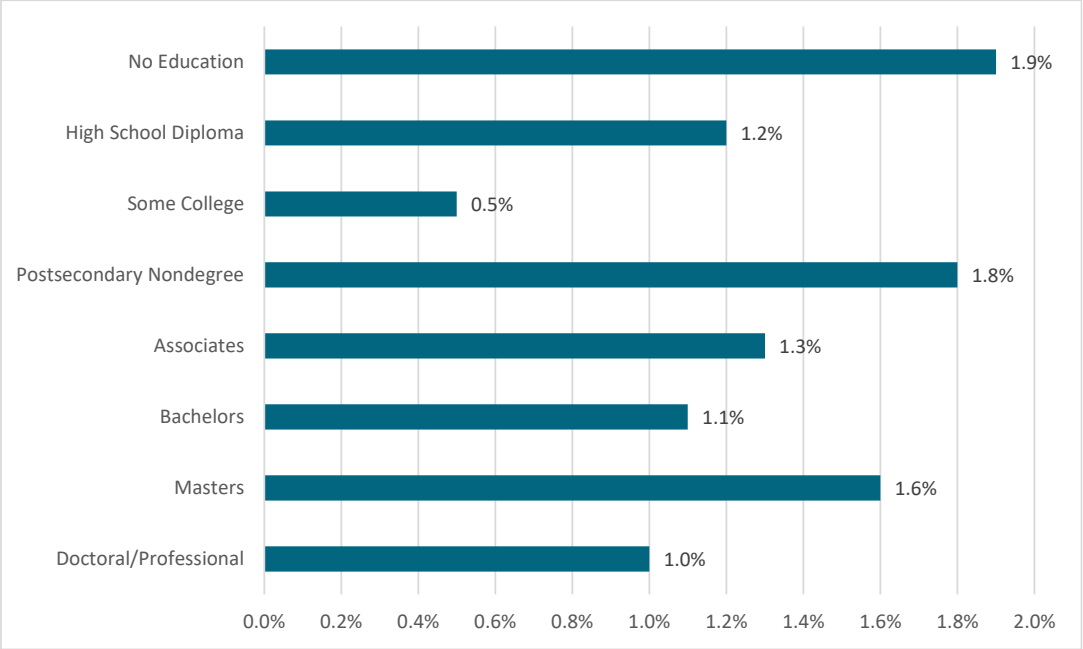
Source: Iowa Workforce Development, Labor Market Information Division

Education

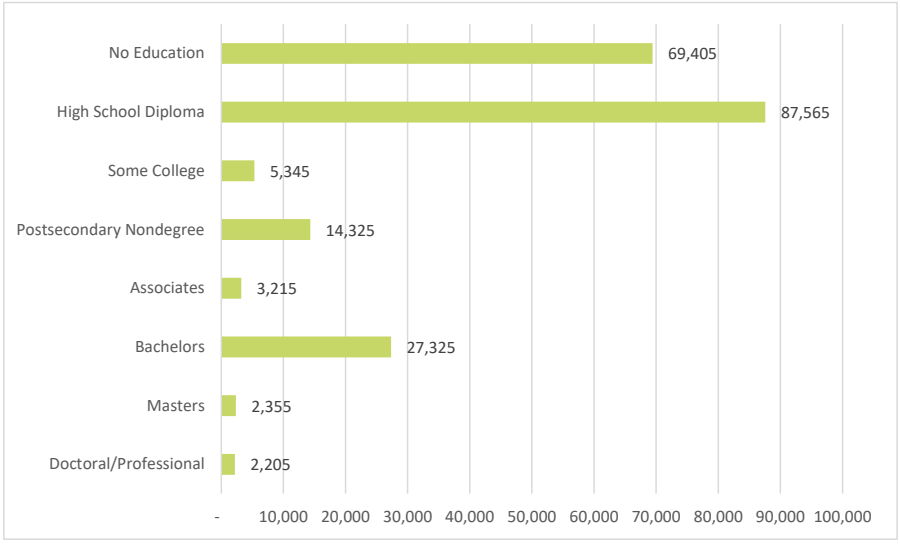
The 2022-2024 occupational projections depict a range of educational requirement growth rates with most falling in and around the state 1.1% average. Three educational groups, however, notably exceed the state average significantly as presented in the first chart below. These include No Education (1.9%), Postsecondary Nondegree (1.8%), and Masters (1.6%) which would indicate occupational growth occurring across the educational spectrum. Typical occupational growth coincides with increased levels of education but the pandemic changed this outlook. In getting back to full employment from devastating losses during the pandemic, employers sought and continue to seek workers at all levels of educational attainment.

The second chart below delineates employment growth by actual number with educational groups High School, No Education, and Bachelors exceeding all others. With No Education a common educational group (by percentage and by number), the pandemic's aftermath continues to alter occupational growth by education level in unforeseen forms. However, even though economic growth is dependent upon public engagement (both in the job market and consumption patterns), yet unknown are lingering pandemic factors pointing towards typical or normal patterns of growth or a new normal.

2022-2024 Annual Occupational Growth Rates by Education Requirement



2022-2024 Annual Occupational Growth in Employment Numbers by Education Requirement



Source: Iowa Workforce Development, Labor Market Information Division

Inflation and the Labor Market

Written by Chap Deit

Inflation

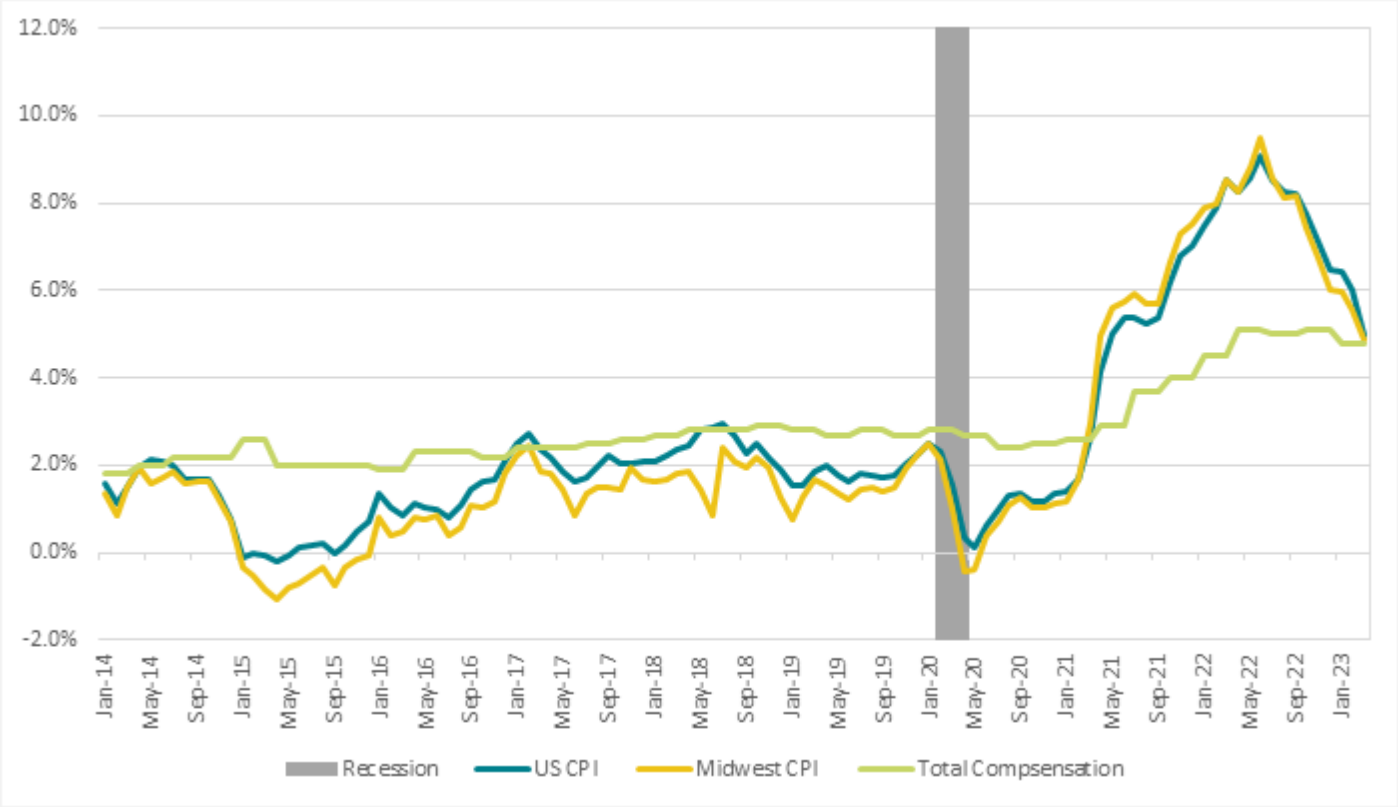
Inflation, the ongoing rise in general average price level of goods and services, dominated the news headline since early 2021. The Bureau of Labor Statistics (BLS) measures and tracks changes in Consumer Price Index (CPI). The BLS data shows that the Consumer Price Index for all urban consumers (CPI-U) has steadily risen since the beginning of 2nd quarter 2021.

The figure below shows the nominal inflation (headline inflation). The inflation (CPI-U) measures weighted average for all items in an urban setting in the US, while the Midwest inflation (CPI-U) measures the inflation within the Midwestern states (BLS,2023). The Employment Cost Index (ECI) tracks changes in the average compensation costs for all civilian workers. Total compensation captures wages and all benefits.

As shown in the chart below, inflation was running well below the central bank's annual 2 percent target rate for most of 2014. By February of 2015, the nominal inflation dipped down to negative (deflation). By January of 2016, it pushed back up to positive territory. Between February 2017 and February 2020, the national nominal inflation was averaging 2 percent, well within the central bank target rate. The Midwest CPI ranged from low (-1.1) percent in April 2015 to high 2.5 percent in January 2020, otherwise the Midwest inflation mirrored the broader national inflation rate for the same period.

The nominal inflation ticked up in April 2021 and quickly surged to 9.1 percent for the US, and 9.5 percent for the Midwest states by June 2022. Although inflation has been trending down since it peaked in June 2022, the cost for everyday items is still elevated for many families. Even if we discounted for the wage gains (green line), the wage gains and associated benefits have not kept up with the increased in the cost of living since the early part of 2021.

Percent Change in U.S. CPI, Midwest CPI and ECI (Year-Over-Year)



Source: U.S. Census Bureau, Division of Consumer Price and Prices Index, and Employment Cost Index

How Inflation Affects Iowa

The BLS measures and tracks changes in the CPI at regional level as well. Iowa is part of the Midwest region, which is comprised of: Iowa, Illinois, Wisconsin, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Kansas, Indiana, Michigan, and Ohio.

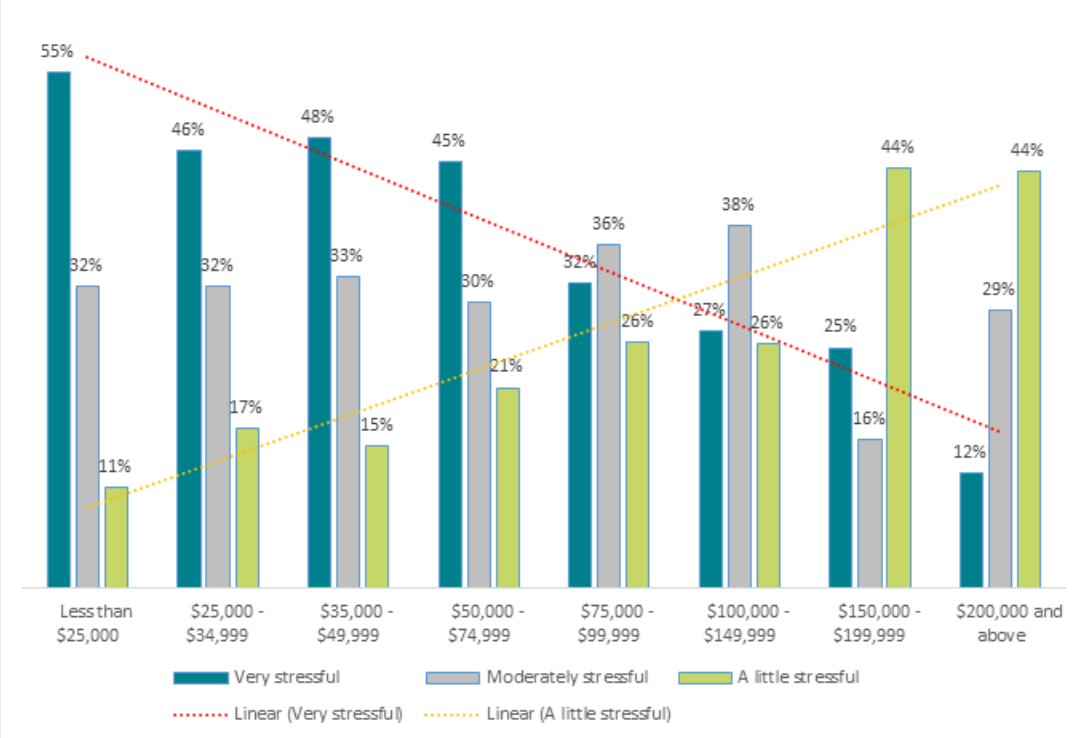
As shown on the previous page (orange line), the Midwest CPI ranged from low (-1.1) percent in April 2015 to high 2.5 percent in January 2020. While the Midwest inflation mirrored the broader national inflation rate for the same period, inflation in the Midwest states trended slightly lower than national inflation rate through early part of 2021. Starting in April 2021, the Midwest inflation rate picked up the lead compared with national inflation rate. Since August 2022, inflation rate in Midwest started to tail off in comparison to national inflation rate, but the overall inflation is still high, and it is a burden for many households.

The Census Bureau's Household Pulse Survey asked people how inflation has affected them (see figure below). In Iowa, more than 55 percent of households with $25,000 or less income reported that increase in the price of goods and services made them very stressed (Blue bar). Conversely, on the other end of the income spectrum, just 12 percent of households with $200,000 and above income reported that inflation made them very stressed. For households with $50,000-$74,999 income, 45 percent of them are very stressed due to inflation.

The overriding conclusion is that people are experiencing high inflation differently. High inflation constraints families' budgets and causes hardship. High inflation is particularly disruptive for low-income households.

Empirical research suggests that low-income households tend to be rentals and these households spend higher levels of their income on necessities: shelter, food, and energy, those same categories that experienced higher inflation than average. Low-income households have less flexibility to buy in bulk to save money or to substitute; they are already consuming at the margin. For instance, upper middle-income households may buy more generic brands or trade down to less expensive products i.e., substitute beef for chicken, when family budgets strain. Those types of options are limited with low-income households because they are already living at margins and have no room for a trade down.

Inflation Stress on Iowa Households



Source: U.S. Census Bureau Household Pulse Survey, Week 57. Data collected from April 26-May 8, 2023

The Fed and the Labor Market

Some Economists attributed high inflation to supply chain issues and the effects of COVID-19 on general population. Some also attributed inflation on the geopolitical environment related to war in Ukraine, i.e., higher commodity prices due to the war. Other price shocks came from the shift in demand from services to goods, and from fiscal policy implications.

The COVID-19 pandemic influenced the labor market as some workers stayed home due to fear of contacting the virus in the early days of the pandemic. Most of the Covid-related supply chain pressures have dissipated; however, the inflation as measured by the change in CPI, has persistent.

The Federal Reserve (Fed) core function is to maintain price stability and support maximum employment. The Fed maintains price stability by managing inflation. The Federal Open Market Committee (FOMC) sets the federal funds rate, the rate at which the banks lend to each other overnight (Federal Reserve System, 2023). More importantly, the fed funds rate influences nominal interest rates, the regular interest rates that consumers pay when they take out a loan.

Since the beginning of 2022, the Federal Open Market Committee (FOMC) has been raising interest rates in efforts to slow down the aggregate demand. In fact, the Fed has raised the federal funds rate ten cumulative times, an action that is influential in magnitude and in speed.

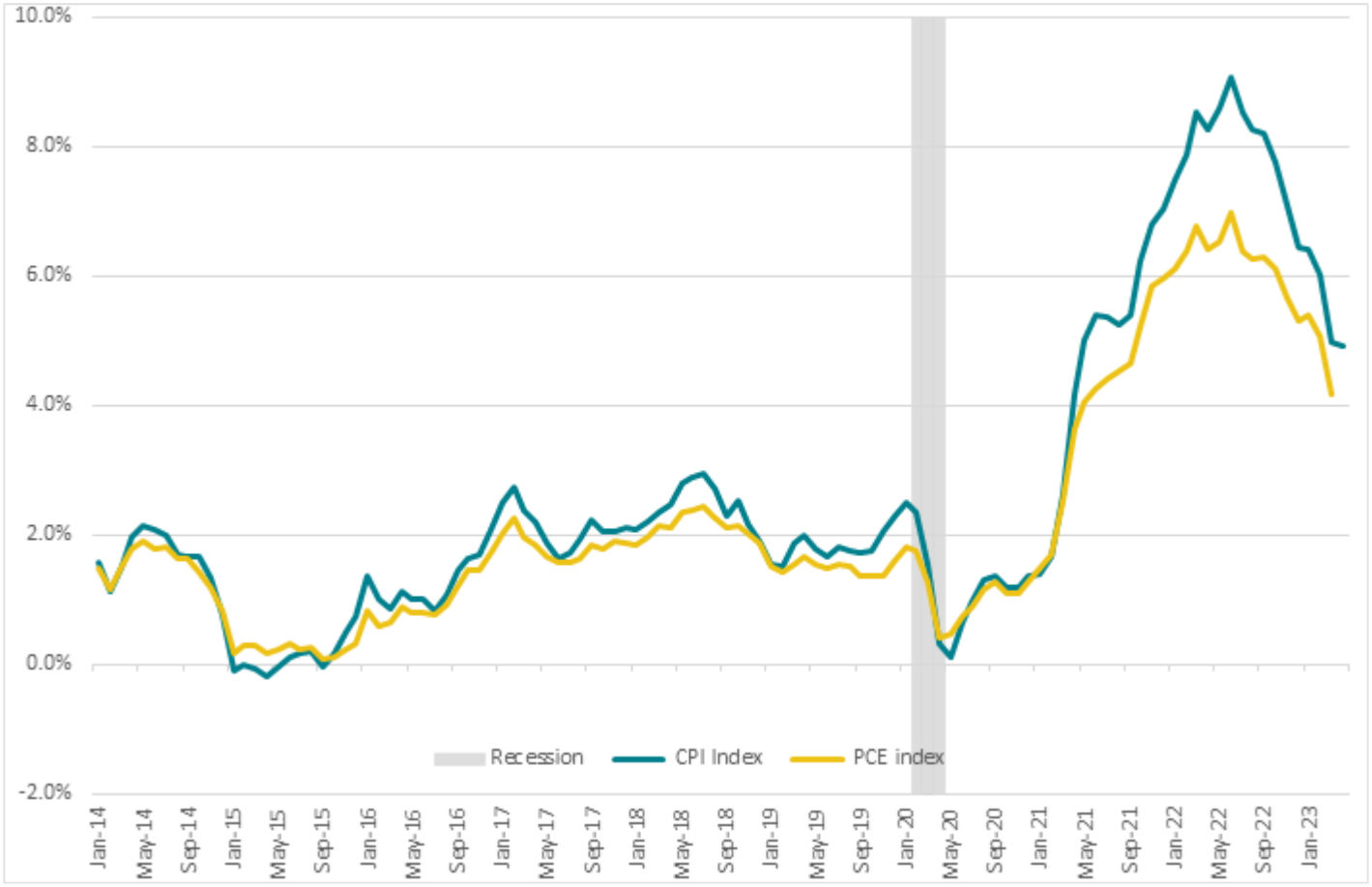
Economic theory suggests that Fed actions affect the demand side of the macroeconomic projections because they influence economic activity: the Fed raises interest rates to discourage investment and spending, particularly when the economy is experiencing high inflation. Conversely, they may cut interest rates when economic activity slows to stimulate economic activity.

High interest rates increase the cost of borrowing money. These elevated costs of money slow down economic activity by making it more costly to do business. Additionally, these higher costs make investment more expensive just as it weighs down consumption by reducing buying power within the household's budget. Fed goals are to equilibrate inflation without slowing the job market and causing a recession, especially given that monetary policy affects the economy with a lag.

The personal consumption expenditures (PCE) price index, from the Bureau of Economic Analysis (BEA), is more adaptable to spending activities and therefore better reflects the sensitivity effect on consumers' behavior; it's the Fed preferred gauge for the U.S. inflation.

As shown in the figure on the next page, the CPI tends to be inflationary compared with PCE. While the PCE is slightly preferred over the CPI, the Fed still considers both indexes in evaluating inflation pressures within the economy; clearly, the PCE is still well above the Central bank target rate of around 2 percent target rate.

Percent Change in PCE and CPI (Year-Over-Year), Seasonally Adjusted



Source: U.S. Census Bureau , Division of Consumer Price and Prices Index; Bureau of Economic Analysis (BEA) Price Indexes

Labor Market Dynamic in Iowa

Industry employment in Iowa is projected to add 36,560 nonfarm jobs from 2022-2024. Industry employment will increase to 1,773,755; a 2.1 percent increase from the current 1,737,195 base employment. The 2022-2024 projections growth rate is a moderate projection compared to the prior short-term projections. It is 2.5 percentage points lower than the 2021-2023 industry projections mostly because jobs lost due to COVID-19 have been gained back.

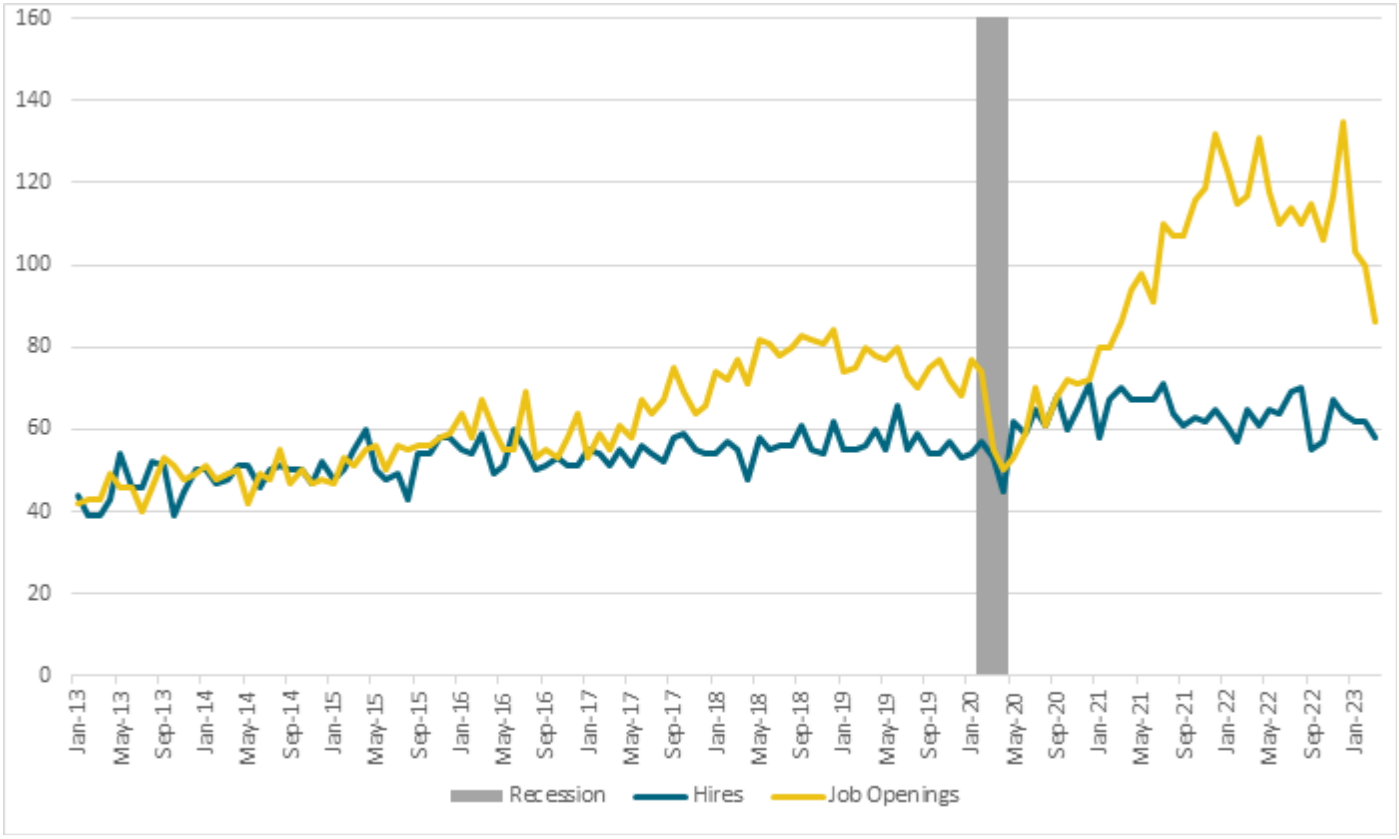
Econometric models show that higher interest rates have sensitivity to economic activity. Interest rates, particularly high rates, are highly sensitive for the housing market and other large purchases. The overall expected reduction in consumption and decrease in investment will result in slower economic growth and that could imply a slow job growth for the labor market.

Despite all macroeconomic headwinds, the labor market is still strong in Iowa.

The Bureau of Labor Statistics Job Openings and Labor Turnover Survey (JOLTS) estimates show that labor demand is holding strong in Iowa. The figure on the next page shows the job openings and hiring level for Iowa since 2013 and illustrates that there is still higher number of job openings compared with hiring level .

The number of job openings has trended down since January of 2023, but the overall number of job openings is still elevated compared to hiring level.

Iowa Job Openings and Hiring Level, Seasonally Adjusted

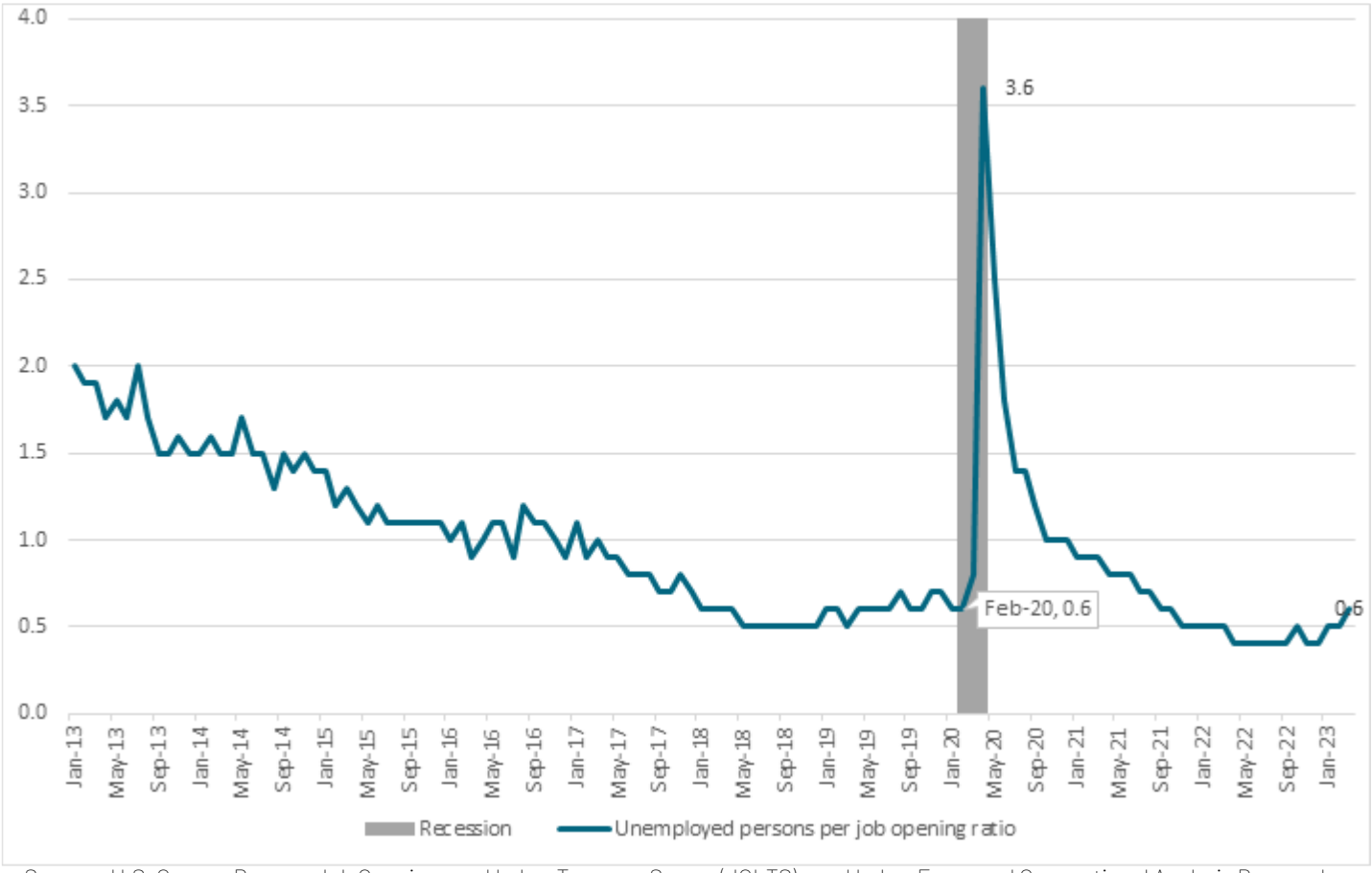


Source: U.S. Census Bureau, Job Openings and Labor Turnover Survey (JOLTS),

A different way to assess the labor market dynamics is to look at the number of job openings per unemployed persons. The number of unemployed persons per job opening captures the dynamics of the labor market conditions. Job openings levels capture the labor demand, while the number of unemployed persons captures the supply side of the equation. A ratio of 1.0 suggests that a job is available for each unemployed person, and a lower ratio indicates a tight labor market.

The figure on the next page is a graph of the monthly ratio of job openings per unemployed persons since 2013. The graph shows that the ratio of unemployed per job opening for Iowa stood at 2.0 in January 2013, indicating that more people were looking for jobs. The ratio of unemployed per job opening started to decline shortly thereafter and trended downward to 0.6 by January of 2020, showing that Iowa experienced a tight labor market since 2017. During the peak of the virus-induced recession of 2020, the ratio of unemployed per job openings spiked to 3.6 for Iowa, showing the impact of lockdowns caused by the pandemic. The monthly ratio of unemployed per job opening still hovers near 0.6 as of March 2023, indicating that Iowa continues to endure a tight labor market.

Iowa Number of Unemployed Persons per Job Openings Ratio, Seasonally Adjusted



Source: U.S. Census Bureau, Job Openings and Labor Turnover Survey (JOLTS),; and Labor Force and Occupational Analysis Bureau, Iowa Workforce Development

Conclusion

Inflation weighs down families' budget and causes hardship. In Iowa, more than 55 percent of households with $25,000 or less income reported that high inflation made them very stressed. Conversely, on the upper end of the household income threshold, just 12 percent of households with $200,000 and above income reported that high inflation made them very stressed.

The monthly ratio of unemployed per job opening reflects the strength of the labor market. In Iowa, the 0.6 ratio of job openings to unemployed workers suggests that Iowa is still in a strong job market despite all macroeconomic headwinds.

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Trends of Likeliness to Change or Accept Employment Pre-Pandemic to Current

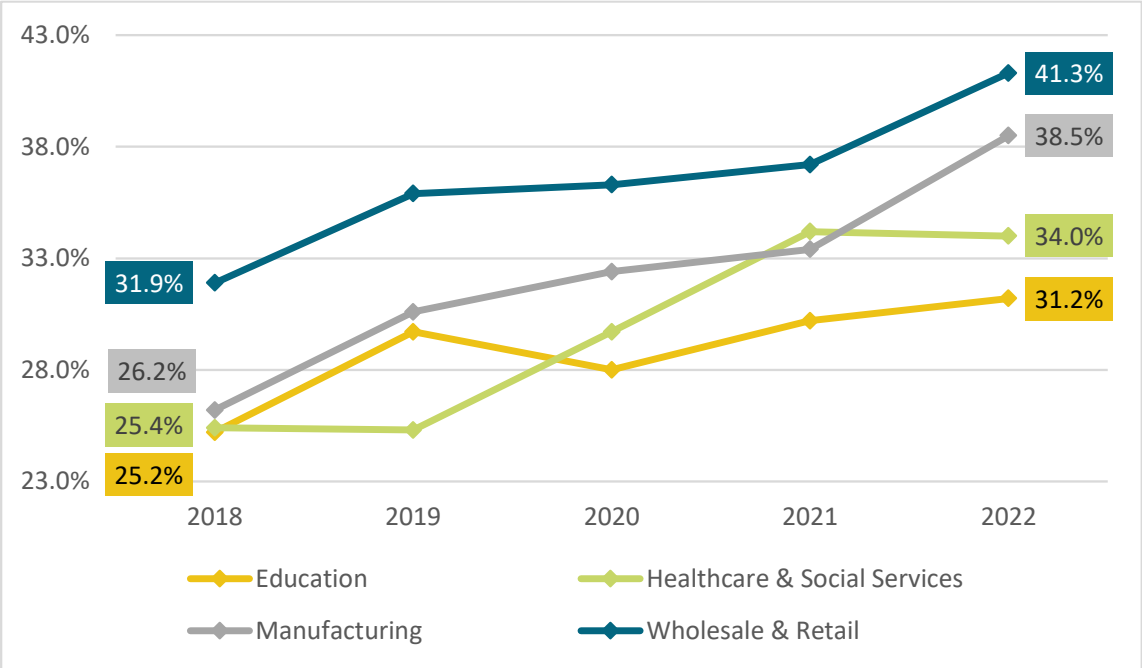
Written by Bridget Weddle

The statewide Laborshed survey conducted by Iowa Workforce Development, in partnership with the Iowa Economic Development Authority, is a survey of Iowa residents between the ages of 18-64. This survey collects data related to participants' workforce characteristics. A few of the characteristics include current employment status, educational attainment level, current & desired benefits, commute, and likeliness to change or accept employment. Employment status is grouped into four categories. These self-identified categories are employed, unemployed, homemaker, or retired. Throughout the COVID-19 pandemic, data show fluctuations in these workforce characteristics. This article we will further delve into the workforce characteristic "likeliness to change or accept employment." The survey data collected ranges from the pre-pandemic year 2018 to the most current annual information available, 2022.

Top Industries of the Employed- Likely to Change

Wholesale & retail trades, healthcare & social services, manufacturing, and education are the top four industries of the employed and have all shown an increase in the likeliness of individuals to change employment. The data from 2022 shows the highest likeliness for participants to change employment among all four industries over the last five years. The largest increase seen between 2018 and 2022 is in the manufacturing industry. The data shows an increase of 12.3% from 2018 to 2022. Nearly two-fifths (38.5%) of those who are currently employed in the manufacturing industry are likely to change employment, this is up from 26.2% in 2018. The wholesale and retail trades industry shows the highest percentage at 41.3% in 2022. This is an increase of 9.4 percentage points since 2018. These trends can be seen in the chart below.

Likeliness to Change Employment by Top Industries



Source: State of Iowa Laborshed Survey, Iowa Workforce Development

We also see an annual decrease in the amount of people employed and working in the healthcare and social services industry. In 2018, 15.2 percent of respondents worked in healthcare, and by 2022 this number steadily decreased to 13.2 percent. The education industry has also shown a decrease from 11.8 percent in 2018 to 9.3 percent in 2021. In 2022 the data show that percentage of respondents in the education industry bump up to 10.9 percent. This increase shows that more people are employed in education in 2022 than the prior two years. The table below shows of the four industries and the percentage of employed working within each industry between 2018 and 2022.

Breakout of Employed by Top Industries

	Education	Healthcare & Social Services	Manufacturing	Wholesale & Retail
2018	11.8%	15.2%	13.3%	15.3%
2019	11.1%	14.5%	12.0%	15.6%
2020	10.8%	14.7%	13.2%	14.0%
2021	9.3%	13.8%	13.3%	14.9%
2022	10.9%	13.2%	12.9%	15.4%

Source: State of Iowa Laborshed Survey, Iowa Workforce Development

Top Occupations of the Employed- Likely to Change

Among occupational groups, data shows an increase of those likely to change employment are predominantly in the professional, paraprofessional, and technical occupational group. In this group, the data shows a 7.9 percent increase of those likely to change between 2022 (31.8%) and 2018 (23.9%). In 2022, the highest percentage of those likely to change can be found in the service occupation at 38.3 percent. This is an increase of 6.9 percentage points over 2018 (31.4%). These two groups and the production, construction, & material handling group have seen a gradual increase over the last five years among those likely to change employment.

Percent Likely to Change Employment Among Employed by Occupational Category

	Agriculture	Clerical/ Administrative Support	Managerial /Administrative	Production, Construction, & Material Handling	Professional, Paraprofessional, & Technical	Sales	Service
2018	10.6%	24.3%	17.6%	29.0%	23.9%	33.0%	31.4%
2019	11.6%	30.4%	21.9%	31.0%	26.6%	28.2%	35.3%
2020	10.9%	25.2%	18.7%	31.1%	26.4%	30.8%	36.9%
2021	12.1%	30.6%	22.1%	31.4%	28.9%	30.4%	38.9%
2022	10.9%	30.1%	22.9%	35.8%	31.8%	30.6%	38.3%
2022 vs 2018	**+0.3%**	**+5.8%**	**+5.3%**	**+6.8%**	**+7.9%**	**-2.4%**	**+6.9%**

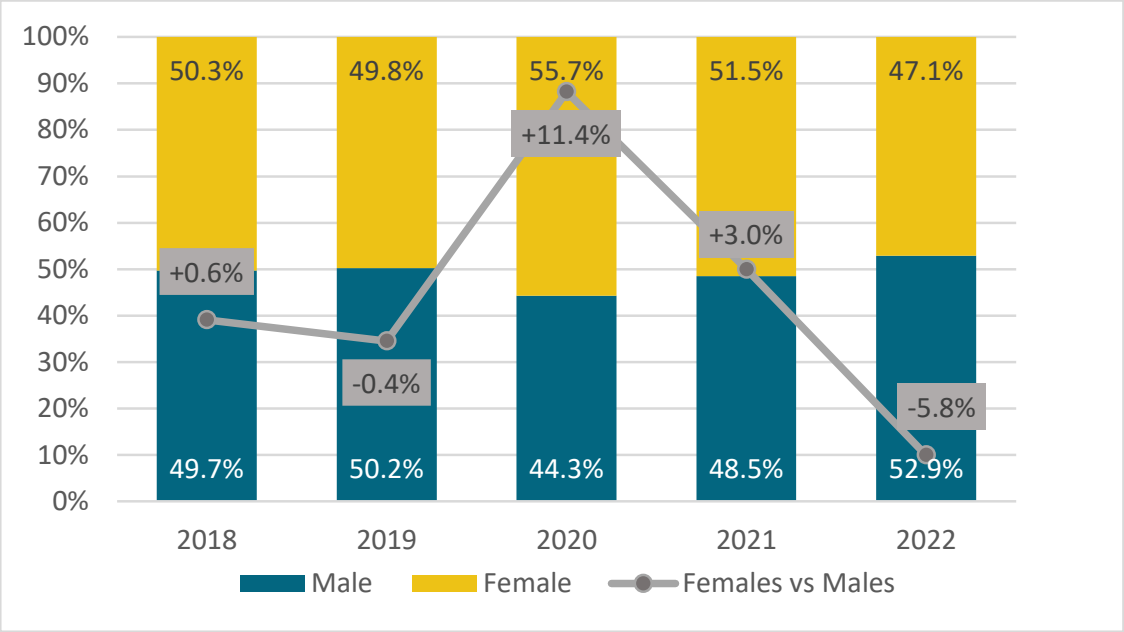
Note: yellow highlighted cells represent the year with the highest percentage of those likely to change employment within each occupational group.
Source: State of Iowa Laborshed Survey, Iowa Workforce Development

Likeliness to Change Employment by Gender

The chart on the next page shows the variation among employed males and females who are likely to change employment. The largest difference between the two genders is seen in 2020 where 55.7 percent of females were likely to change employment whereas 44.3 percent of males were likely to change. This is a difference of 11.4 percentage points. By 2022, the majority of males were likely to change employment (52.9%), which was 5.8 percentage points higher than females (47.1%).

The average age of employed survey respondents who are likely to change employment has fluctuated between 39 and 42 years old over the course of the five year analysis.

Likeliness of the Employed to Change Employment by Gender



Source: State of Iowa Laborshed Survey, Iowa Workforce Development

Employment Status by Likeliness to Change or Accept Employment

For those respondents who are employed, there has been a gradual increase in likeliness to change employment each year since 2018.

In 2020, for all respondents who were categorized as unemployed, homemaker, and retired, there was a sharp decline in likeliness to accept employment, compared to 2019. Homemakers showed the largest decrease from 2019 (45.3%) to 2020 (31.7%) with a decline of 13.6 percentage points among those likely to accept employment. However, the next year (2021), the percentage of homemakers-likely to accept employment jumped to 48.7 percent. This increase of 17 percentage points was the largest increase from 2020-to-2021 among all employment categories. In 2022, the percentage of homemakers-likely to accept employment grew again to 51.7 percent. When comparing 2018 to 2022, homemakers-likely to accept employment grew by 12.3 percentage points. The employed -likely to change employment had the second highest increase, by 6.9 percentage points over the same period. Both the unemployed and retired-likely to accept employment decreased (overall) from 2018-to-2022.

Percent Likely to Change or Accept Employment by Current Employment Status

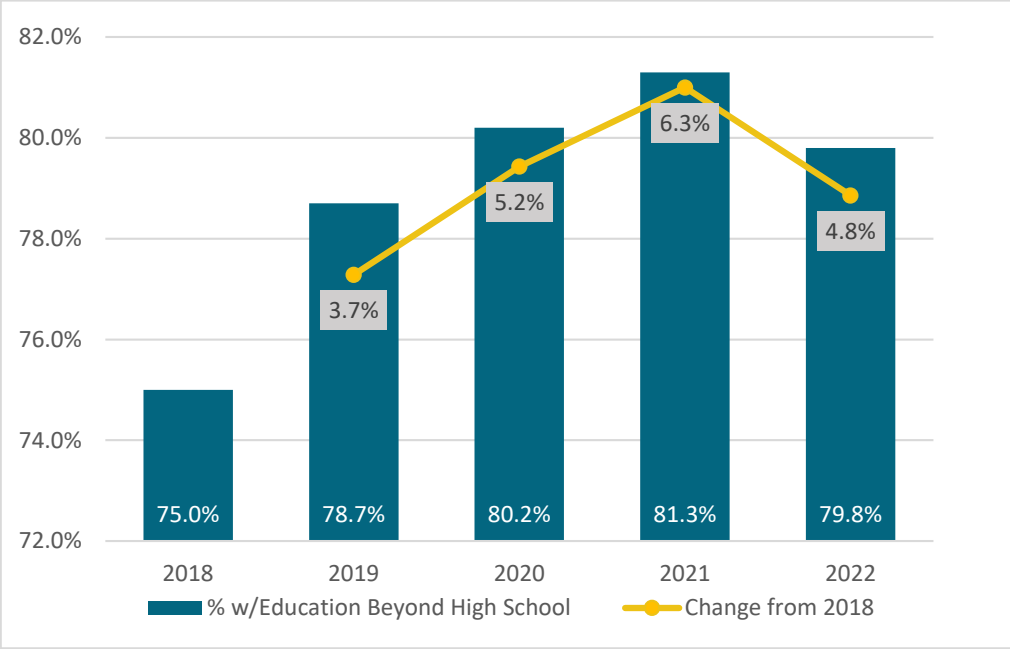
	Employed	Unemployed	Homemakers	Retired
2018	24.0%	72.1%	39.4%	25.8%
2019	27.3%	67.5%	45.3%	20.9%
2020	26.2%	62.3%	31.7%	15.0%
2021	28.8%	71.6%	48.7%	28.1%
2022	30.9%	70.7%	51.7%	25.3%
2022 vs 2018	**6.90%**	**-1.4%**	**12.30%**	**-0.5%**

Note: yellow highlighted cells represent the year with the highest percentage of those likely to change/accept employment within each employment status category.
Source: State of Iowa Laborshed Survey, Iowa Workforce Development

Educational Attainment of the Employed and Likely to Change Employment

When analyzing only those respondents who are employed and likely to change employment, over the last five-years, there has been an increase in this group's education level. In 2018, 75 percent of respondents employed—likely to change employment had an education beyond high school. There was an increase in this percentage in the following years peaking at 81.3 percent in 2021. In 2022, the percentage of those with an education beyond high school dipped from the previous year but is still higher than pre-pandemic years at 79.8 percent.

Education Level Among Those Employed and Likely to Change Employment



Source: State of Iowa Laborshed Survey, Iowa Workforce Development

Further, the table below shows the percentage of those who are employed and likely to change employment by their current education level. Across the board, all levels of education experienced an increase in the percentage of those likely to change employment from 2018 to 2022. Between 2018 and 2022, the greatest percentage of those likely to change employment for each education level was in 2022, except for those with a master's degree or higher.

Percent of Those Likely to Change Employment within Each Education Level (Employed Respondents Only)

	Less than H.S. Diploma	H.S. Diploma/ Equivalent	Some Education Beyond H.S.	Trade Certification	Vocational Training	Associate Degree	Bachelor's Degree	Master's Degree or Higher
2018	36.0%	24.6%	26.0%	27.8%	15.4%	24.0%	21.7%	21.9%
2019	34.2%	27.7%	30.7%	19.6%	20.9%	25.1%	28.1%	24.6%
2020	33.8%	26.4%	26.4%	26.9%	19.3%	24.9%	27.7%	26.5%
2021	34.9%	26.8%	33.1%	27.2%	26.0%	27.2%	27.2%	31.5%
2022	40.0%	30.3%	33.5%	31.1%	29.7%	30.1%	29.9%	29.8%
2022 vs 2018	**4.0%**	**5.7%**	**7.5%**	**3.3%**	**14.3%**	**6.1%**	**8.2%**	**7.9%**

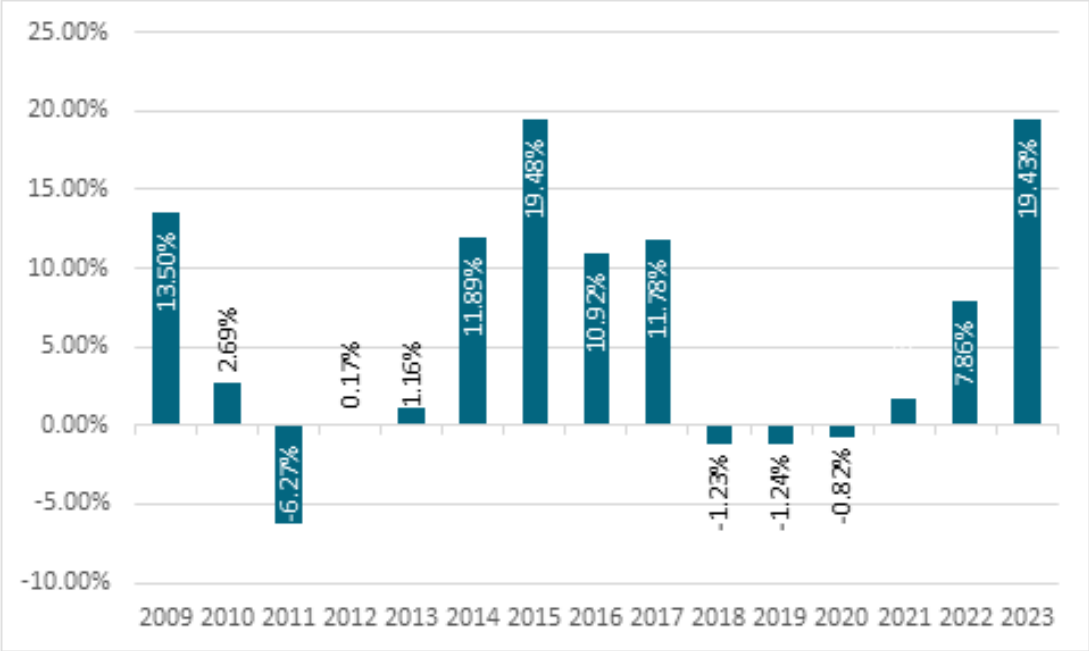
Note: yellow highlighted cells represent the year with the highest percentage of those likely to change/accept employment within each educational category.
Source: State of Iowa Laborshed Survey, Iowa Workforce Development

Registered Apprenticeships in Iowa

Written by Cenk Cetin

During 2022, Registered Apprenticeship (RA) program participation in Iowa continued the upward trend it had experienced in recent years. Below is the percentage change year-over-year in Active Apprentices. In this chart, each year is represented by the first quarter Active RA counts.

Percentage Change in Active RAs Year-over-Year



Source: Registered Apprenticeship Statistics (RAPIDS), Department of Labor

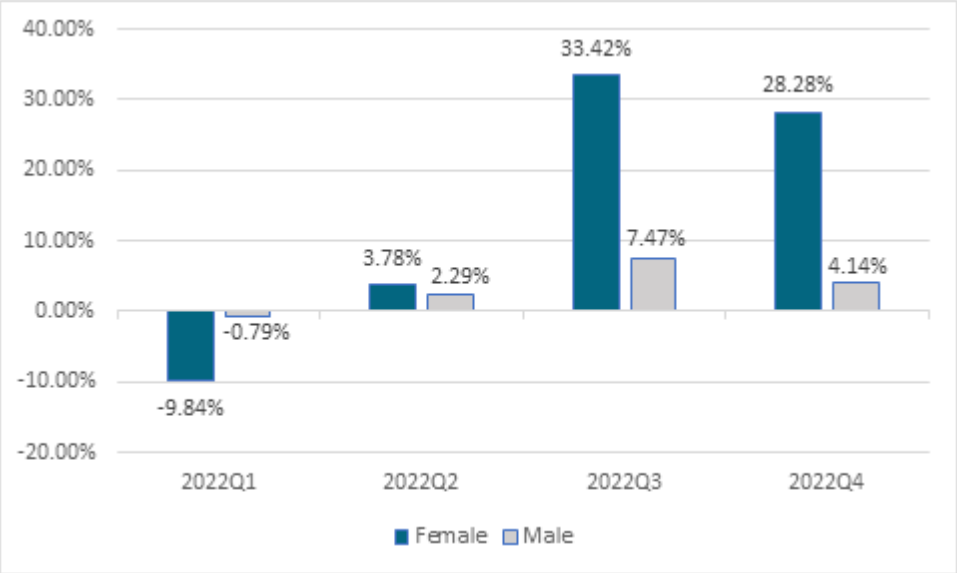
The Active Apprentice count in the first quarter of 2022 was 7.86 percent higher than in the first quarter of 2021. Moreover, this increase in the Active Apprentice count more than doubled between 2022 and 2023, (to 19.43%). This upward trend in participation may be attributable to the post-pandemic economic recovery that can be observed throughout the nation[1]; however, the efforts of the Governor's Office to promote Registered Apprenticeships cannot go unnoticed.

During 2022, there were two new grant opportunities that were been provided to the public regarding the Registered Apprenticeship program. The first one is Teacher & Paraeducator Registered Apprenticeship Program (TPRA) which provides additional opportunities for current high school students and adult paraeducators to earn credentials while learning and working in the classroom. The second one is the Iowa Health Careers Registered Apprenticeship Program (IHCP) which is a grant opportunity aimed at addressing the workforce needs of the healthcare sector. Program funding helps jumpstart high school-based registered apprenticeship programs which accelerates the pathway into the health care field. In 2022, these two new grants provided more than $60 million in funding[2].

During 2022, the increase in RA participation by gender shows the impact (potentially) that these grants have made, given that both of the career paths supported by these grants are traditionally predominately female. The chart on the next page summarizes the change in RA participation in 2022 in which the change is measured as the change in the Active RA count from the previous quarter.

[1] *Iowa's Workforce and the Economy (2022)*, 2021 Iowa Economy Update by James Morris.
[2] https://www.earnandlearniowa.gov/funding

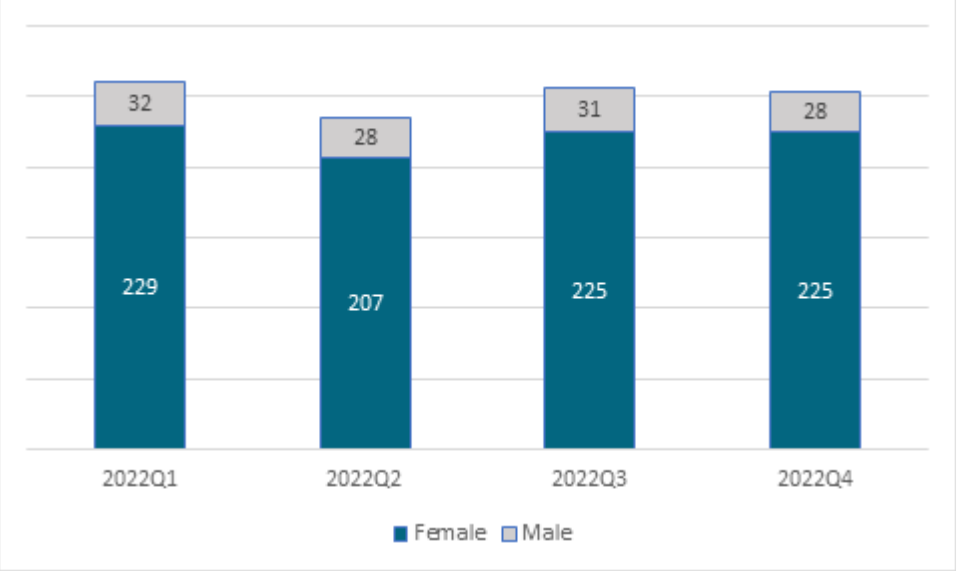
Change in Active RAs from the Previous Quarter by Gender



Source: Registered Apprenticeship Statistics (RAPIDS), Department of Labor

Increasing participation for both genders can be observed during 2022, except the first quarter. Starting from the second quarter of 2022, female RA participation increased significantly more than male RA participation increased. For example, in the fourth quarter of 2022, Active RA female participation increased by 28.28 percent while the male participation increase was only 4.14 percent. The chart below displays the gender distribution of RAs in the health care and social assistance industry in 2022.

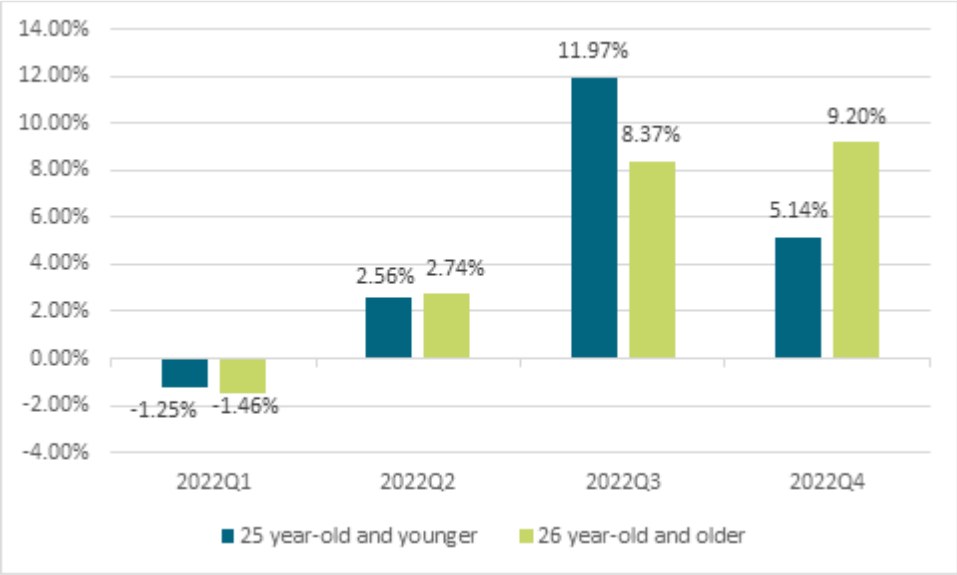
Health Care and Social Assistance Industry Active RA Count by Gender



Source: Registered Apprenticeship Statistics (RAPIDS), Department of Labor

By the same token above, the expected increase in funding available through TPRA could be associated with the increased rate of participation in the 25 year-old and younger age group compared to the older age group.

Change in Active RAs from the Previous Quarter by Age



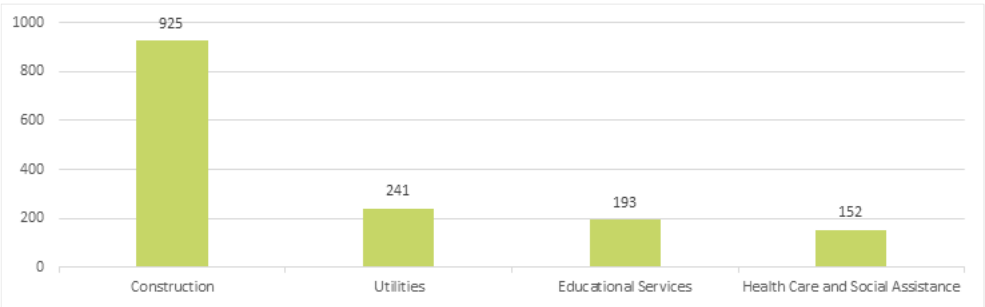
Source: Registered Apprenticeship Statistics (RAPIDS), Department of Labor

The figure above demonstrates the differences among different age groups in the increased rate of Active RAs from the previous quarter in 2022. In the third quarter of 2022, the count of Active RAs for 25 year-old and younger age group increased by 11.97 percent while this increase was only 8.37 percent within the 26 year-old and older age group. Given that TPRA aims to help current high school students to earn a paraeducator certificate and associates degree, as well as to help paraeducators earn their Bachelor's degree, this additional funding is expected to increase the participation of the younger cohorts.

The effects of additional funding into non-traditional RA programs via TPRA and IHCP can also be observed in the number of apprentices who complete their programs. The chart below demonstrates the top four industries with the highest number of RA completers in 2022. It is no surprise that industries with traditional RA programs such as construction and utilities dominate (by count of completers) in 2002 with 925 and 241 completers, respectively. However, the next two spots are taken by non-traditional RA industries: educational services and health care and social assistance, 193 and 152 completers, respectively.

Looking ahead, Iowa Governor Kim Reynolds signed a new law that will establish the Iowa Office of Apprenticeship inside IWD beginning July 1, 2023. This new office will be the sole authority in regards to registration and certification of Iowa apprenticeships. This new law will move Iowa to become a State Apprenticeship Agency (SAA), joining 31 other SAAs.

RA Completers by Industry, 2022



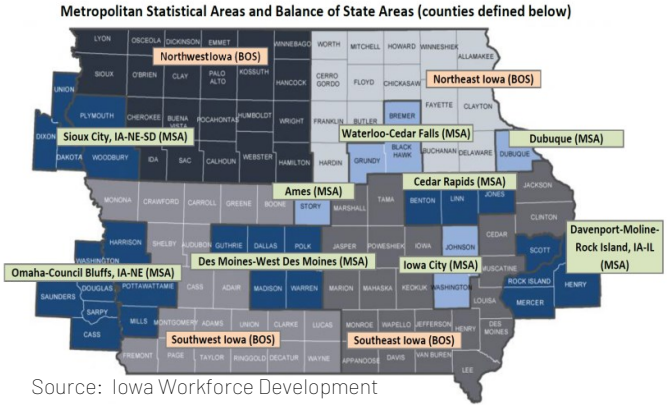
Source: Registered Apprenticeship Statistics (RAPIDS), Department of Labor

Iowa's Occupational Employment & Wage Statistics Program

Participation Benefits Iowa Business, Education, and Workers Through the Iowa Wage Report

Written by Scott Thompson

The recent period commonly referred to as the Great Resignation or perhaps more appropriately called the Great Reshuffle, provided a unique opportunity to showcase the importance of the data collected in the Occupational Employment and Wage Statistics (OEWS) program and the occupational and wage estimates produced by the State of Iowa.



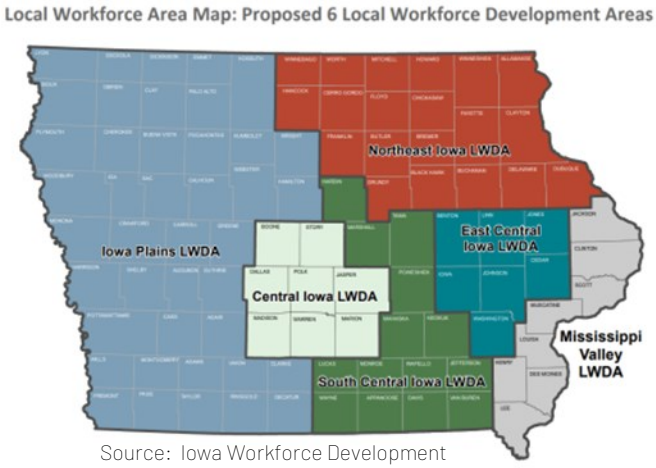
Source: Iowa Workforce Development

As employers were looking for ways to strengthen their workforces or reinforce their competitiveness, the Iowa Wage Report became a reliable tool for many hiring and personnel managers. The data Iowa's employers provide to this important program produces robust current occupational and wage estimates for public use. Iowa Workforce Development produces Statewide, our nine Iowa Workforce Development Areas (newly reorganized to become six Iowa Workforce Development Areas), the nine Metropolitan Statistical Areas (MSAs) across Iowa, and the four Balance of State (BOS) areas.

The OEWS program is federally sponsored by the Bureau of Labor Statistics (BLS) and administered in Iowa by OEWS unit within the Labor Market Information (LMI) Division of Iowa Workforce Development (IWD). We ask respondents to provide the job titles and either an hourly or annual wages for each full-time and part-time employee who worked at their business establishment for the pay period referenced in our request.

Annually, the Bureau of Labor Statistics selects over 7,000 Iowa reporting units split almost equally to participate in semiannual OEWS panels of May 12th and November 12th. Business establishments are selected based on a representation of geography, industry, size, and ownership. To avoid duplication, once an establishment has been sampled, it is ineligible to participate for the next five cycles.

Trust and confidence are the two most important tenets of our program. Without either of these we fail. Data confidentiality and security are taken seriously at Iowa Workforce Development and in the OEWS unit. Respondents should be confident knowing their information is secure in both the BLS and IWD systems. Also, we will never request any personally identifiable information.



Source: Iowa Workforce Development

After the data has been collected and coded, it is aggregated and weighted for statistical purposes. Wage estimates are produced using survey data collected over a rolling three-year cycle (6 panels). This timeframe provides the necessary combination of geography, industry, size, and ownership to gather the data necessary to build reliable estimates. The estimates are released to the states annually each May for publication and public use. By using the Employment Cost Index, Iowa Workforce Development produces a more current wage estimate product called the Iowa Wage Report. The data can be found on our website and is discussed further in this article.

Unlike many states, Iowa law does not mandate employer participation in the OEWS program. However, Iowa Workforce Development remains accountable for achieving a 75 percent response rate for each of the thirteen statistical reporting areas. The data, which is relied upon for economic and community development purposes, is dependent on the generous cooperation of Iowa's employers. Without their help, this publicly available information would likely not exist.

The intent of this article is to provide a resource informing the public on how OEWS program participation contributes to producing the Iowa Wage Report and its benefits to the Iowa economy.

Prenotification, Data Solicitation, and Collection

This section focuses on the solicitation outreach process for each OEWS panel. It includes solicitation methods and the options from which respondents my submit their data.

Prenotification

Approximately one month prior to the start of a panel, each employer is mailed a prenotification letter (prenote). The purpose of the prenote is to explain the OEWS program and provide an opportunity for a representative of the firm to submit their contact information. The prenote also instructs the employer on how data may be submitted. The information we gather in the prenote step includes the name of the contact person, job title, company name, mailing address, phone number, and email address.

Solicitation Methods

Occupation and wage data is solicited from employers through a series of postal mailings and email blasts originating from BLS. These efforts are supported by local solicitation strategies including local postal and email campaigns, and follow – up phone calls, and occasional field visits to nonrespondents.

Postal Mailings, Email, and Nonrespondent Outreach Solicitation Methods

Most sampled establishments will receive an initial postal mailing or email with instructions for reporting their data electronically or by telephone. In a typical panel, follow-up mailings will be sent to nonrespondents every four weeks.

The initial email notification accompanies the initial postal mailing. Likewise, nonrespondents can expect to receive a follow-up email every four weeks.

Each state may choose to collect data from nonrespondents in a way they feel is most effective for them. Often it involves a combination of personalized emails and telephone calls.

Data Collection

In most cases, the convenient option is to respond electronically. Many payroll systems have the capacity to produce reports which can be loaded into the BLS system. Respondents may also choose to use the Excel template provided by the Bureau of Labor Statistics or by calling Iowa's OEWS Bureau.

To maximize user convenience, respondents' have a variety of options to submit data. In the list below, actual Iowa response information for 2023 has been provided.

Response Options

- Online: Go to IDCFOEWS.BLS.GOV. Respondents log into the system using their unique 12-digit IDCF number. This number, beginning with 19 (identifying Iowa) can be found above the address block in our mailings.
- Email: Send an email with your data, including your IDCF number to OESIOWA@IDCFMAIL.BLS.GOV. We will send you an Excel template on request.
- Mail: Respondents may complete page 3 of the booklet mailed to them and return the completed form in the enclosed postage-paid envelope.
- Fax: Respondents may complete page 3 of the booklet mailed to them and fax the completed form to 515-281-8203.
- Phone: Respondents may call our toll-free line: 800-258-2221 to report their data. This is often the fastest method for establishments with fewer than 20 employees.

The Who and What of OEWS Data Reporting

Who and What Should Be Included in the OEWS Report[1]

- Full-time employees: Report their hourly wage rates or annual salaries. For most occupations, a full-time employee is someone who works 2,080 hours a year, including paid vacations (40 hours per week for 52 weeks).
- Part-time employees: Report their hourly wage rates.
- Salaried employees with non-standard work hours: Report their hourly wage rate.
- Each worker's job title and a brief job description.

Some employee compensation plans fall outside an hourly wage or annual salary. The Bureau of Labor Statistics has included a list of these wages to include in reported your data[1].

- Base Rate
- Guarantee Pay
- Piece Rate
- Deadhead Pay
- Commissions
- Hazard Pay
- Portal-to-Portal Rate
- OTR (Mileage) Pay
- Cost of Living Adjustments
- Longevity Pay
- Production Bonus
- Tips

Data Reporting Tips

The responsibility of a Labor Market Economist in Iowa's OEWS unit is to assign a Standard Occupational (SOC) Code[2] based on the work activity of each employee. In most cases, a job title is sufficient and will align with an appropriate SOC code. However, there are times when job title embellishment or ambiguity makes data unusable. In these cases, employers may receive calls or emails asking for data clarification.

It is not uncommon for an employer to combine all employees into a single occupational category for the convenience of time. Unfortunately, this type of reporting will result in the data being unusable and require clarification. We ask employers to exercise diligence in providing titles based on the exact work the employee is performing.

An example of how to report most non-education establishment data is provided. If an employer has more than one employee working in the same occupation at the same wage, the two employees may be combined and identified in the column "Number of Employees".

For each table in this report, the wages represented are the statewide averages for occupations in the 2022 Iowa Wage Report[3].

Data Reporting for Non-Educational Institutions				
Job Title	Hourly Wage	Annual Wage	# of Employees	Department
Secretary	$19.44		1	Office
Shop Supervisor		$63,041	1	Shop
Machinist	$21.80		2	Shop
Production Manager		$103,638	1	Administration

Tips for Providing Data for Non-standard Work Year Occupations

Entertainers and performers often work non-standard work years. To accurately estimate an annual wage, workers in these occupations should be reported with an hourly wage. The Iowa OEWS Bureau will calculate the annual wage with the data provided.

[1] https://www.bls.gov/respondents/oes/faqs.htm#10 (OEWS respondent FAQs)
[2] https://www.bls.gov/oes/current/oes_stru.htm (May 2022 Occupation Profiles)
[3] https://www.iowalmi.gov/iawagereport (Iowa Wage Report Home Page)

There are numerous non-standard work year occupations for which an annual wage should be reported. These occupations include:

- Athletes and Sports Competitors
- Commercial Pilots
- Athletic Trainers
- Airline Pilots, Copilots, & Flight Engineers
- Umpires, Referees, & Other Sports Officials
- Legislators
- Coaches and Scouts
- Flight Attendants

Educational Establishments

Occupational and wage data in education often differs from that of other industry sectors. Teaching specializations and non-standard work-year occupations require special attention to ensure accurate coding.

The wages of some elementary, middle, and secondary educators may be based on the classroom where they teach. Special Education teachers may be compensated at a different level than other teachers in a district. Most likely, a school's basketball coach is also a classroom educator who is being paid a stipend in addition to a teaching salary. In a case such as this, both the teaching salary and the coaching stipend would be combined to create the annual salary.

Primary and Secondary Education

- For primary and secondary teachers, please specify the grade level and indicate if they teach special education or if they teach career, technical, or vocational education.
- If a teacher or a substitute teacher is paid daily, please report the daily wage and the number of hours in their workday.
- If a faculty member works less than full-time but receives an annual salary, please report the salary and whether they are employed half-time, three-quarters time, one-third time, two-thirds time, etc.[4]

Data Reporting for Elementary and Secondary Education				
Job Title	Hourly Wage	Annual Wage	# of Employees	Department
Substitute Teacher		$125/day*	1	8 hours
Special Education Teacher		$55,567	1	3rd grade
Teacher		$63,193**	1	2nd grade
Classroom Assistant		$27,373	1	Elementary
Teacher		$55,471	1	2nd grade

*Demonstration wage, **experienced wage

Post Secondary Education

Reporting the occupations and wages for postsecondary institution may pose a challenge, here are some helpful tips.

- For professors or adjunct teachers, include the subject taught or department. Please include pre-credit hour pay rate for adjuncts.
- If full-time faculty are paid an annual salary, please report their annual salary.
- For faculty who work less than full-time but receive and an annual salary, report the salary and whether they are employed half-time, three-quarters time, one-third time, two-thirds time, etc.

Data Reporting for Postsecondary Education				
Job Title	Hourly Wage	Annual Wage	# of Employees	Department
Career Counselor		$53,723	1	Administration
Dean		$95,526	1	Social Sciences
Adjunct Instructor		$900/credit hour*	1	Economics
Professor Emeritus		$30,000	1	Political Science .30 fte

*Demonstration wage

[4] https://www.bls.gov/respondents/oes/instructions.htm (OEWS program instructions for respondents)

Data Review and Coding

Prior to being coded, the data are reviewed to ensure it matches the program request. This review includes the location of the reporting unit, verifying the correct North American Industry Classification System (NAICS) code, the number of employees reported, the occupations provided in the report, and how the wages are reported. If any of the information is unclear, we reach out to the reporting unit's contact person for clarification.

If the information is in good order, we proceed with coding. Each occupation is assigned its appropriate Standard Occupational Classification (SOC) code. There are 23 major group classifications in the SOC system. The major groups are broken into 98 minor groups, which are in turn divided into 459 broad categories (Bureau of Labor Statistics, 2022). From those broad categories, each Iowa Labor Market Economist is responsible for identifying the SOC fitting the occupation and job description provided by the employer.

Quality Assurance

When coding is completed, the information is entered either electronically or manually into a secured BLS database. Each coded data submission undergoes a quality assurance test. Unexpected changes to the size of the number of employees in the reporting unit, unusual occupations associated with the NAICS code, or wages falling outside a predicted wage interval for an occupation, will flag the data for a follow-up examination by the Labor Market Economist responsible for coding the data.

Upon the close of each panel, the data are reviewed by the Bureau of Labor Statistics. Any questions arising from the review are addressed and the data are integrated with the five previous panels to create an updated set of occupational and wage estimates and released to each state. These quality assurance steps help to ensure the finished product is an accurate reflection of current economic conditions.

Data Presentation

The purpose of collecting occupational and wage data, reaching out to nonrespondents, coding the data we've collected, and making quality review edits is done so that we may arrive at this point, presenting the data. It is here, where the contributions of Iowa's employers and the work of Labor Market Economists intersect to produce the data frequently desired by decision makers in business, education, and government.

Our data does not sit on a shelf or rest quietly in a digital database. Our data are dynamic, it has purpose and is in demand. The data have contributed to job retention, attracting new workers, and business growth. It is also used to advise students who are making their first career choices and assisting those who have found it necessary to make a career change.

Iowa Wage Report

The most utilized product generated from Iowa's OEWS program is the Iowa Wage Report. The wage estimates in our report are made current through an escalation of BLS wage estimates[5] with the most recent Employment Cost Index[6]. The index, produced through the National Compensation Survey is administered by the Bureau of Labor Statistics, and measures changes in in the hourly cost of a worker's labor over time (Bureau of Labor Statistics, 2018). The index is an important component of the Iowa Wage Report. Because of its use, no further adjustments for CPI are necessary.

OEWS wage estimates and Iowa Wage Report estimates are not time-series in nature, therefore, should not be used in a year-to-year comparison. However, it is possible to provide an historical estimate of a wage by deescalating the Employment Cost Index from the current wage.

[5] https://www.bls.gov/oes/current/oes_ia.htm (2022 BLS Wage Estimates for Iowa)
[6] https://www.bls.gov/eci/home.htm (BLS Employment Cost Index website)

Using the Iowa Wage Report Website

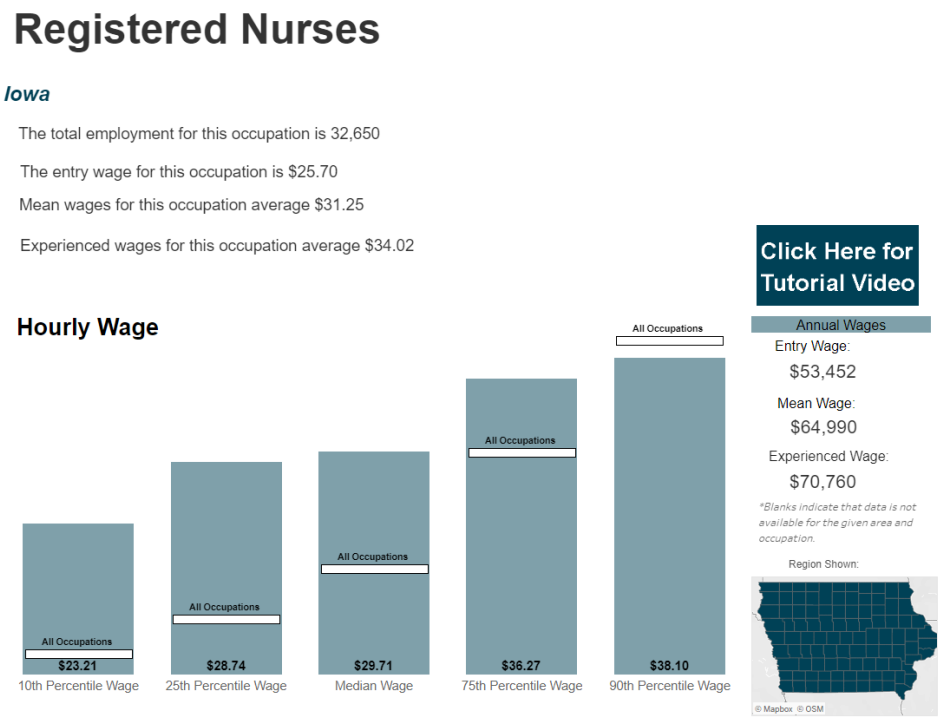
The Iowa Wage Report may be accessed as a visualization through our Tableau application or as a data download in a CSV file. In addition to printing the visualization, Tableau offers users the flexibility to sort data from high to low or low to high. Data, as a visualization may be downloaded as a PDF, image file, or Tableau workbook for users who have Tableau software. Users may also share their data on Twitter or Facebook or through embedded code onto a website.

Data in the Iowa Wage Report is presented in three tabs Occupation Lookup, Area Comparison, and Occupation Comparison. While using the Iowa Wage Report website users will find total estimated employment for each occupation. Wages for each occupation are presented as both hourly and annual. The 10th, 25th, Median, 75th, and 90th percentile wages are presented along with entry level (the average of the lower one-third of reported wages), mean, and experienced (the average of the top two-thirds of reported wages) hourly and annual wages.

Occupational Lookup Tab

The first tab is the occupational lookup feature. The user may select one of several geographic areas; statewide, Workforce Development Area, Metropolitan Statistical Area, or one of the four Balance of State areas. Once the occupation is selected the data presented includes total employment, a bar graph of wages comparing the selected occupation against the wages of all occupations, and the annual wages. As users hover over the bar graph, they can focus in on a specific percentile wage of their choosing. By clicking on the display, a graphic appears with a description of the data.

This is an excellent tool for students and career counselors in secondary and post-secondary education. It provides users with a multitude of beneficial visualizations based not only on their career choice, but also by location.



Source: www.iowalmi.gov/iawagereport, Iowa Workforce Development

Area Comparison Tab

The area comparison tab provides users the options to select the occupational title and by area type or by area name. Users may also conduct a search using the SOC code or by occupational group.

Estimated employment and wages are presented in a table format and sorted by area. When users click on a geographic area the data are highlighted. When users hover over the data, a more detailed display of hourly and annual wages appears. This visualization is an ideal tool for job seekers who are making career relocation decisions and for employers who are seeking to determine what wages are competitive in their market.

Iowa Wage Report 2022

Occupational Title: (All) | Area Type: (All) | Area Name: (All)

Search by SOC Code (##-####): 29-1141 | Occupational Group: (All)

Area Name1	Occupational Title	Estimated Employment	Entry Wage	Mean Wage	Median Wage	Experienced Wage
Ames Metro	Registered Nurses	1,030	$25.61	$30.46	$28.97	$32.88
Cedar Rapids Metro	Registered Nurses	2,700	$26.64	$31.68	$29.34	$34.20
Central Iowa Local Workforce Development Area	Registered Nurses	8,550	$26.35	$31.88	$30.33	$34.64
Davenport Metro	Registered Nurses	1,780	$25.14	$30.71	$29.14	$33.50
Des Moines Metro	Registered Nurses	7,230	$26.54	$32.12	$30.48	$34.91
Dubuque Metro	Registered Nurses	1,340	$24.82	$29.72	$28.68	$32.17
East Central Iowa Local Workforce Development Area	Registered Nurses	6,970	$27.80	$33.10	$29.85	$35.75
Iowa	Registered Nurses	32,650	$25.70	$31.25	$29.71	$34.02
Iowa City Metro	Registered Nurses	4,120	$28.99	$34.16	$29.85	$36.74
Mississippi Valley Local Workforce Development Area	Registered Nurses	3,460	$24.79	$30.25	$29.11	$32.98
North Central Iowa Local Workforce Development Area	Registered Nurses	980	$24.49	$30.31	$29.34	$33.21
Northeast Iowa Balance of State	Registered Nurses	2,060	$24.48	$30.31	$29.26	$33.22
Northeast Iowa Local Workforce Development Area	Registered Nurses	5,170	$24.79	$30.22	$29.11	$32.94
Northwest Iowa Balance of State	Registered Nurses	2,850	$23.93	$29.87	$29.34	$32.84
Northwest Iowa Local Workforce Development Area	Registered Nurses	1,540	$23.62	$29.88	$29.37	$33.01
Omaha-Council Bluffs Metro	Registered Nurses	860	$26.74	$32.12	$30.20	$34.82
Sioux City Metro	Registered Nurses	1,450	$24.72	$29.88	$29.11	$32.47
South Central Iowa Local Workforce Development Area	Registered Nurses	1,580	$24.15	$29.65	$29.11	$32.40
Southeast Iowa Balance of State	Registered Nurses	3,680	$24.45	$29.89	$29.11	$32.61
Southwest Iowa Balance of State	Registered Nurses	1,980	$24.49	$29.67	$29.05	$32.26
Southwest Iowa Local Workforce Development Area	Registered Nurses	580	$24.94	$30.08	$29.13	$32.65
Waterloo Metro	Registered Nurses	1,770	$25.13	$30.51	$29.22	$33.19
Western Iowa Local Workforce Development Area	Registered Nurses	3,700	$25.03	$30.36	$29.22	$33.02

Source: www.iowalmi.gov/iawagereport, Iowa Workforce Development

Occupational Comparison Tab

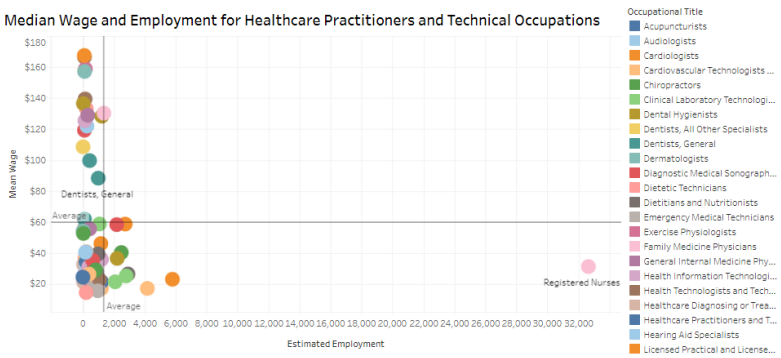
The occupational comparison tab presents a unique visualization of estimated employment and wages. Appearing similar to a scatter plot, users can measure how each occupation measures itself against the others in the occupational group. When users click on a geographic area the data are highlighted. When users hover over the data, a more detailed display of hourly and annual wages appears. The feature can be a useful asset for career counselors in educational institutions.

Iowa Wage Report 2022

Iowa Employment and Wages for Healthcare Practitioners and Technical Occupations

Occupational Title	Estimated Employment	Entry Wage	Mean Wage	Median Wage	Experienced Wage
Acupuncturists	10	$17.98	$24.42	$28.27	$27.63
Anesthesiologists	160	$142.82			
Athletic Trainers	430				
Audiologists	180	$29.82	$40.46	$37.45	$45.78
Cardiologists	100	$122.53	$167.47		
Cardiovascular Technologists and Technicians	400	$16.69	$26.41	$28.05	$31.27
Chiropractors	840	$13.71	$29.10	$23.81	$36.80
Clinical Laboratory Technologists and Technicians	2,800	$18.06	$25.23	$23.29	$28.82
Dental Hygienists	2,220	$32.74	$36.55	$37.03	$38.45
Dentists, All Other Specialists	20	$76.95	$108.54		$124.33
Dentists, General	1,000	$48.68	$88.32	$78.43	$108.14
Dermatologists	120	$90.79	$157.18		

Geography: Iowa | Occupational Group: Healthcare Practitioners and Technical Occupations



Source: www.iowalmi.gov/iawagereport, Iowa Workforce Development

Concluding Remarks

The OEWS program is used to produce wage and occupational estimates for business, education, and government. In Iowa, we add value to the BLS estimates through the production of the Iowa Wage Report as well as Staffing Patterns[7]. Both data products are available on the Iowa Workforce Development Website.

The Iowa Wage Report data helped to play an important role in getting Iowans back to work during and after the pandemic. Business owners, hiring managers, students, educators, and employment recruiters look to our data for worker recruitment and retention activities, as well as business growth and retention strategies and career opportunities.

From a public policy perspective, the data also contributed to improving the eligibility requirements for Iowans to qualify for assistance in the Child Care Assistance Program. As a result, more families would qualify for Child Care Assistance subsidies.

These accomplishments would not have been possible without the participation of Iowa's businesses in the OEWS program. The OEWS program provides a shared public resource which has the capacity of benefitting all Iowans.

Terms Used in the Article

The terms and their definitions provided below can be found in the Bureau of Labor Statistics' May 2022 Survey Methods and Reliability Statement" (Bureau of Labor Statistics, 2023).

Establishment: *"generally, a single physical location at which economic activity occurs (e.g., store, factory, restaurant, etc.). Each establishment is assigned a 6-digit NAICS code. When a single physical location encompasses two or more distinct economic activities, it is treated as two or more separate establishments if separate payroll records are available and certain other criteria are met.*

Nonrespondent: A sampled establishment which has not provided a response to our request for data.

Occupations: *"Are classified based on work performed and on required skills. Employees are assigned to an occupation based on the work they perform and not on their education or training. For example, an employee trained as an engineer but working as a drafter is reported as a drafter. Employees who perform the duties of two or more occupations are reported in the occupation that requires the highest level of skill or in the occupation where the most time is spent if there is no measurable difference in skill requirements".*

Panel: The word used to describe the semiannual samples from whom data is solicited.

Reporting Unit: A single business unit among many (commonly referred to as Multiple Reporting Units) reporting employees for the purpose of paying unemployment taxes as part of a larger firm under one unemployment tax number.

Sampled Establishment: A reporting unit identified to be part of an OEWS panel.

Standard Occupational Classification (SOC) system: the federal statistical standard used by federal agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of 867 detailed occupations according to their occupational definition.

Wage: *"money that is paid or received for work or services performed in a specified period. Base rate pay, cost-of-living allowances, guaranteed pay, hazardous-duty pay, incentive pay such as commissions and production bonuses, and tips are included in a wage. Back pay, jury duty pay, overtime pay, severance pay, shift differentials, nonproduction bonuses, employer costs for supplementary benefits, and tuition reimbursements are excluded".*

[7] https://www.iowalmi.gov/staffing-patterns (Iowa Workforce Staffing Patterns)

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Katie Green, Bureau Chief

Labor Market Information Division
Iowa Workforce Development
1000 East Grand Avenue
Des Moines, Iowa 50319-0902

For deaf and hard of hearing, use Relay 711
(800) 831-1399

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