

Iowa's Workforce and the Economy

2022



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Message from the Labor Market Information Director



In 2021, Iowa's labor market continued the recovery from the Covid-19 Pandemic impacts creating one of the tightest labor markets in recent history. Iowa's employers continued to add jobs, job openings hit new highs, and unemployment insurance claims fell to the lowest levels seen in forty years. Iowans' participation in the labor market fell during 2020 to their lowest levels in 20 years. Labor force participation made gains during the first half of 2021 only to see them recede in the second half of 2021. Exasperating the tight 2021 labor market, Iowans were quitting their jobs in record numbers to find higher pay, more flexibility (telework), or new careers coining the term the Great Resignation. The disruption and shock to the labor market caused by the pandemic continued to ripple through 2021 and have changed the world of work for employers and employees.

The Labor Market Information Division is focused on understanding how these changes impact Iowa's economy and workforce. In this year's Iowa's Workforce and the Economy, our economists have highlighted the data that made 2021 such a turbulent year in the labor market covering: teleworking, job openings, the Great Resignation, the health care industry, and population challenges.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ryan Murphy', written in a cursive style.

Ryan Murphy
Labor Market Information Director

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Executive Summary

Economic Summary of the Pandemic in Iowa:

- Post Covid recovery in 2021 was steady, but challenges have arisen from its impact on the economy, namely, supply chain shortages, high demand for durable goods, inflation and a shortage of hiring staff.
- In spite of these challenges in Iowa, there has been expansion in Gross Domestic Product (GDP) (13.1 percent increase), exports (23.9 percent increase) and sales.
- Since the Covid pandemic Iowa saw wage increases for all industries: 2020 (7.5 percent increase), and 2021 (3.8 percent). Along with wage increases businesses also offered non-monetary benefits to attempt to attract and retain staff, which included: remote work from home, mental health and wellness benefits, pay on demand and signing bonuses.
- The Covid-19 pandemic began in April 2020, when the state lost 10.7 percent of total nonfarm employment (seasonally adjusted) compared to March 2020. In 2021, the state ended with employment at its' highest level since the pandemic. The 2021 annual average employment was 26,900 above the 2020 annual average.
- Health concerns have accelerated retirement for the baby boomers, meaning labor market tightness will persist for a while. Adaptive work environments, greater flexibility in the work arrangements and better wages will encourage some workers back into the labor market.
- The impact of Covid-19 (Low base effect), shows 2020—2030 projections growth rate is 3.7 percentage points higher than the 2018-2028 industry projections for Iowa, and the national industry growth rate is 2.7 percentage points higher than the 2018-2028 projections period.
- The number of unemployed persons in the state averaged 70,900 in 2021, down from the prior year's 86,400.
- The statewide annual average unemployment rate decreased to 4.2 percent in 2021 from 5.1 percent in 2020. The U.S. rate for 2021 decreased to 5.3 percent from 8.1 percent for the prior year.
- Iowa's state metropolitan statistical areas (MSAs) experienced a decrease in their unemployment rates in 2021. County unemployment rates decreased in 96 counties.
- Jobless rates for all 99 Iowa counties ranged from a low 2.3 percent in Lyon County to a high of 6.5 percent in Marshall County.

Other Highlights:

- Leisure and hospitality, the super sector most negatively affected by the pandemic, has reclaimed 90.7 percent of the jobs lost in April 2020 (based on the 2021 peak value of 135,800 jobs which occurred in November).
- Trade, transportation and warehousing super-sector experienced a 2.5 percent gain which represents the super-sector's largest over-the-year gain in the last eighteen years and follows four consecutive years of employment declines.
- The price Iowa farmers received for corn averaged \$5.48 per bushel in 2021, up \$2.00 (57.5 percent) from 2020. The price of soybeans made the largest percentage gain in recent history, jumping 46.2 percent. The average 2021 price per bushel was \$13.13, adding \$4.15 from the previous year. At its peak, May 2021, it was selling for \$14.80 per bushel.

- According to Iowa Association of Realtors, home sales increased 4.6 percent from 2020 to 2021. The average sale price of homes, \$231,596 represents an increase of 10.2 percent from 2020.
- In comparison to many Midwestern states, Iowa lags in population growth through the decades including the most recent 2010 to 2020 period. Utah, Idaho, Texas, North Dakota, Nevada, Colorado, Washington, Florida, Arizona and South Carolina lead the nation in terms of rate of growth with each experiencing over ten percent growth the last ten years.
- According to the 2020 Census data, Iowa's fastest population growth resides in the Ames—Des Moines and Cedar Rapids-Iowa City corridors. Iowa's rural, non-MSA(s) area are facing population declines with some being severe, specifically counties in the West, North Central, and South regions.
- Factors affecting population growth include *fertility* and *immigration*. From 2010 to 2019, immigrants primarily came from Asia (40.2 percent), Latin America (39.7 percent), Africa (8.9 percent), Europe (8.5 percent), Northern America (1.8 percent), and Oceania (0.9 percent).
- From 1990 through 2020, many minority and ethnic populations saw significant growth. Latinos, Iowa's largest minority and ethnic immigrant group, along with Black, Asian, Other, and two or more races have more than doubled in population since 1990. Due to relatively low fertility and state to state migration rates, immigration is a prime source for both state (Iowa) and national population growth.
- As of March 2022, the labor force participation rate in Iowa is still below pre-pandemic levels: down to 66.9 percent from 70.3 percent. It is trending at 62.4 percent from 63.1 percent nationally. The decline in labor force participation rates in Iowa is much larger than the unemployment numbers, which suggests that some people are not actively looking for work: some workers dropped out of the labor force.
- Looking at Teleworkers, the Traditional workplace workers, and the changing dynamics, there are some significant differences among wages. Teleworkers who are paid an hourly wage reported a median hourly wage of \$20.25. Traditional workers who are paid an hourly wage reported a median hourly wage of \$18.50. Among those paid an annual salary, teleworkers reported a median of \$72,000/year while traditional workers reported a median of \$65,000/year.
- Types of employment among Teleworker and Traditional workers also varies. Within both groups the majority work fulltime (88.8 percent of telework and 88.0 percent of traditional workers) with the average number of hours worked per week slightly higher among teleworkers (45) versus traditional workers (43).
- The top occupation for both groups was the professional/paraprofessional/technical, but varied widely between the two. For teleworkers (40 percent) of the top job titles include: management analysts, software developers, and accountants and auditors. For traditional workers (31.2 percent), the top titles include: include: teachers and instructors, registered nurses, and engineers.
- The COVID-19 pandemic presented unprecedented challenges to virtually all aspects of the American economy. Perhaps at the forefront of these challenges was the historically high rate at which American workers voluntarily quit their jobs. The 2021 quits rates were driven by a combination of economic of social and economic factors including a worker's earnings and level of overall happiness.
- Statistically and anecdotally, there is no mystery to why the quits rate reached historic highs in 2021. It was the level of which the rate increased which grabbed our attention. However, it did provide an opportunity for all of us to give pause for serious consideration of how we might improve the working lives of Americans and support employers, simultaneously. Considering full-time employees spend upwards of 30 percent of each year working and earning a living, these are investments we can ill afford to ignore.

2021 Iowa Economy Update

Written by James Morris

Steady Economic Recovery Continues in 2021

Economic recovery continued in 2021. Most industries resumed staffing, which began after social distancing measures peaked in April 2020. The nation became more adept at dealing with the Coronavirus as the months went by, thus allowing most social distancing measures to lax. Prior to this, the country dealt with both the beginning and end of the shortest recession in our Nation's history at just two months, but these effects still linger¹.

As time progressed into 2021, new challenges arose in the form of supply chain shortages, unusually high demand for durable goods, raising input costs due to inflation, and hiring shortages. These issues are persisting into 2022 and will be discussed later. Nonetheless, most indicators took a step forward in 2021.

Expansion Drives up GDP, Exports, and Sales

Most data reflected positivity in 2021. Chief among these gains was the State's Gross Domestic Product (GDP); increasing from \$194.3 billion to \$219.8 billion—a substantial increase of 13.1 percent. This gain follows little growth in 2020 during the height of social distancing. The 2021 increase was in part fueled by growth in exports which increased by 23.9 percent versus the prior year (see figure below). Iowa's GDP was little changed from 2019 to 2020.

Iowa Economic Indicators

General Statistics:	2017	2018	2019	2020	2021
Gross Domestic Product - Iowa (billions)	\$183.5	\$190.4	\$194.3	\$194.3	\$219.8
Exports (millions)	\$18,534.0	\$19,230.4	\$18,308.0	\$18,738.6	\$23,221.7
Personal Income (billions)	\$149.7	\$158.0	\$163.6	\$169.2	\$181.9
Per Capita Personal Income	\$47,286	\$49,212	\$50,149	\$53,057	\$56,973
New Residential Housing Units Authorized	13,948	11,518	11,870	12,623	13,686
Iowa New Vehicle Registrations	140,636	137,209	128,749	124,465	127,766
Employment Statistics:	2017	2018	2019	2020	2021
Total Nonfarm Employment	1,572,800	1,583,600	1,587,300	1,508,700	1,535,600
Urban Areas	901,500	909,900	914,600	869,500	889,100
Rural Areas	671,300	673,700	672,700	639,200	646,500
Manufacturing Employment	216,000	222,600	226,100	216,600	217,700
Financial Activities Employment	109,500	110,000	110,100	109,300	108,900
Leisure and Hospitality	143,200	143,900	144,400	118,400	128,500
Labor Force Statistics:	2017	2018	2019	2020	2021
Total Unemployment	51,800	43,300	45,600	86,400	70,900
Percent Unemployed	3.1%	2.5%	2.6%	5.1%	4.2%
Total Employment	1,645,700	1,671,600	1,704,100	1,595,800	1,605,200
Unemployment Insurance:	2017	2018	2019	2020	2021
Weeks Compensated	1,062,805	946,846	963,111	3,859,061	1,022,506
Average Duration (weeks)	13.4	12.8	12.2	12.2	13.5
UI Regular Benefits Paid (\$ millions)	\$402.6	\$364.7	\$381.8	\$1,254.2	\$404.7

Source: Labor Market Information Division, Iowa Workforce Development, Iowa Economic Development Authority, Bureau of Economic Analysis, Iowa Association of Realtors
(Data may be subject to annual revision)

¹See the National Bureau of Economic Research (NBER) for official recession dates <http://www.nber.org>

Increased exports and business hiring helped fuel income growth

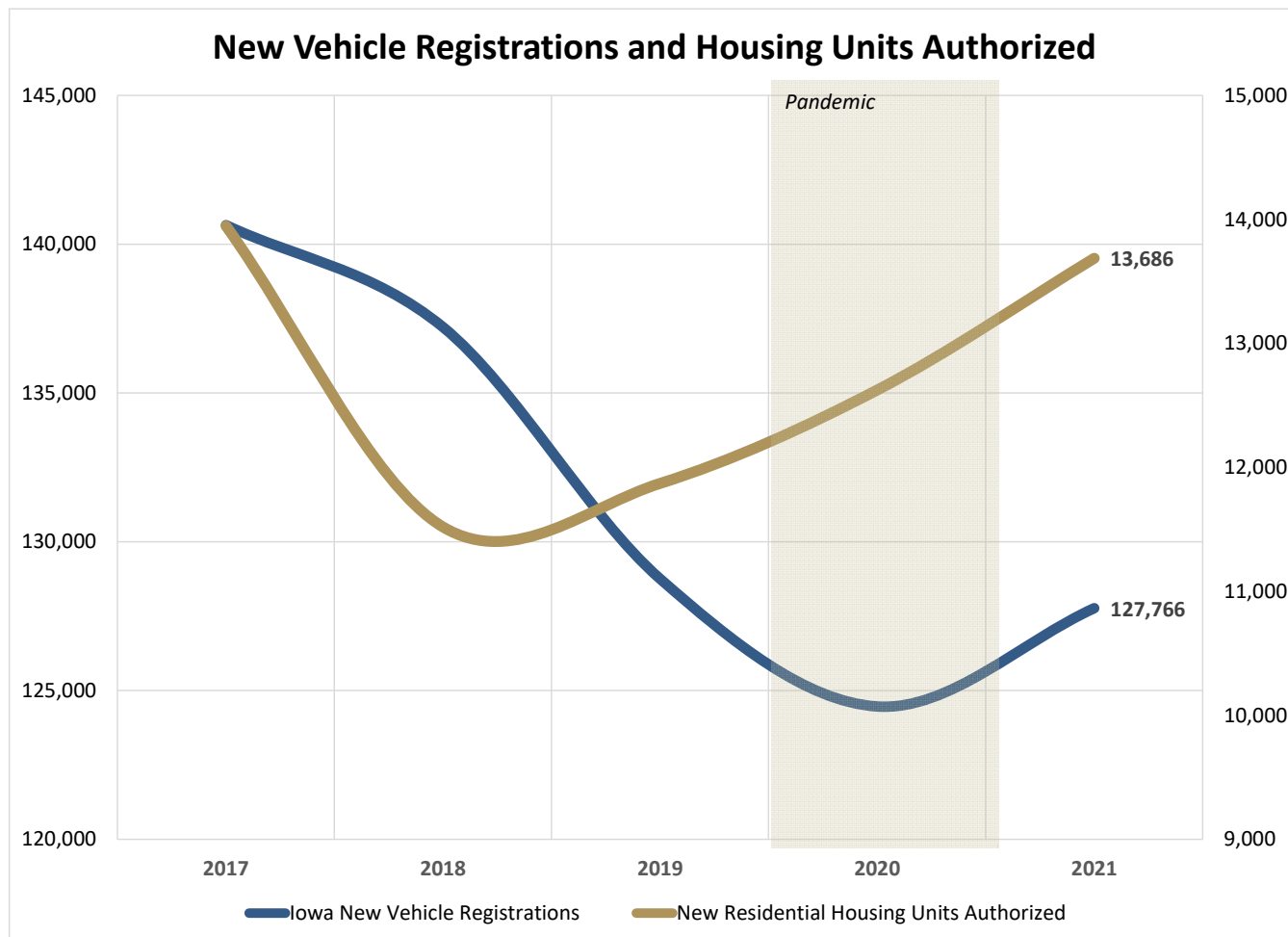
Exports advanced by \$4.5 billion in 2021 (+23.9 percent) following little growth in 2020. This was the first solid gain for exports following a recent high in 2018. Looking at commodities, demand for cereal exports nearly doubled from \$1.7 billion to \$3.3 billion. Cereals, food industry residues, waste, and feed; vehicles and parts, and industrial machinery all had sizeable gains versus 2020. Combined, these industries added \$2.6 billion more in 2021 compared to the prior year. Conversely, firms within aluminum and related articles; fertilizers; and aircraft and spacecraft parts industries exported \$74 million less commodities last year. Nonetheless, losses were relatively small compared to the gains.

Total personal income paid in 2021 totaled \$181.9 billion, up from \$169.2 in the previous year (+7.5 percent). Per capita personal income correspondingly gained \$3,916 and averaged \$56,973 in 2021.

Income growth translated into big ticket sales

Iowa's residential housing market rebounded in 2021 with 8.4 percent more units authorized versus 2020. The average home price for an Iowa home was \$233,000 in 2021, a gain of 9.8 percent as the supply of homes for sale shrank by 5.0 percent (Iowa Association of Realtors). This trend looks to continue into 2022, spurring fears of another housing crisis and correction (Lambert, 2022).

New vehicle registrations increased for the first time since 2017 with a gain of 3,301. Wage increases and a return to the office for teleworkers meant high demand for both new and used vehicles. (see below)



Labor Market Reflects Stability

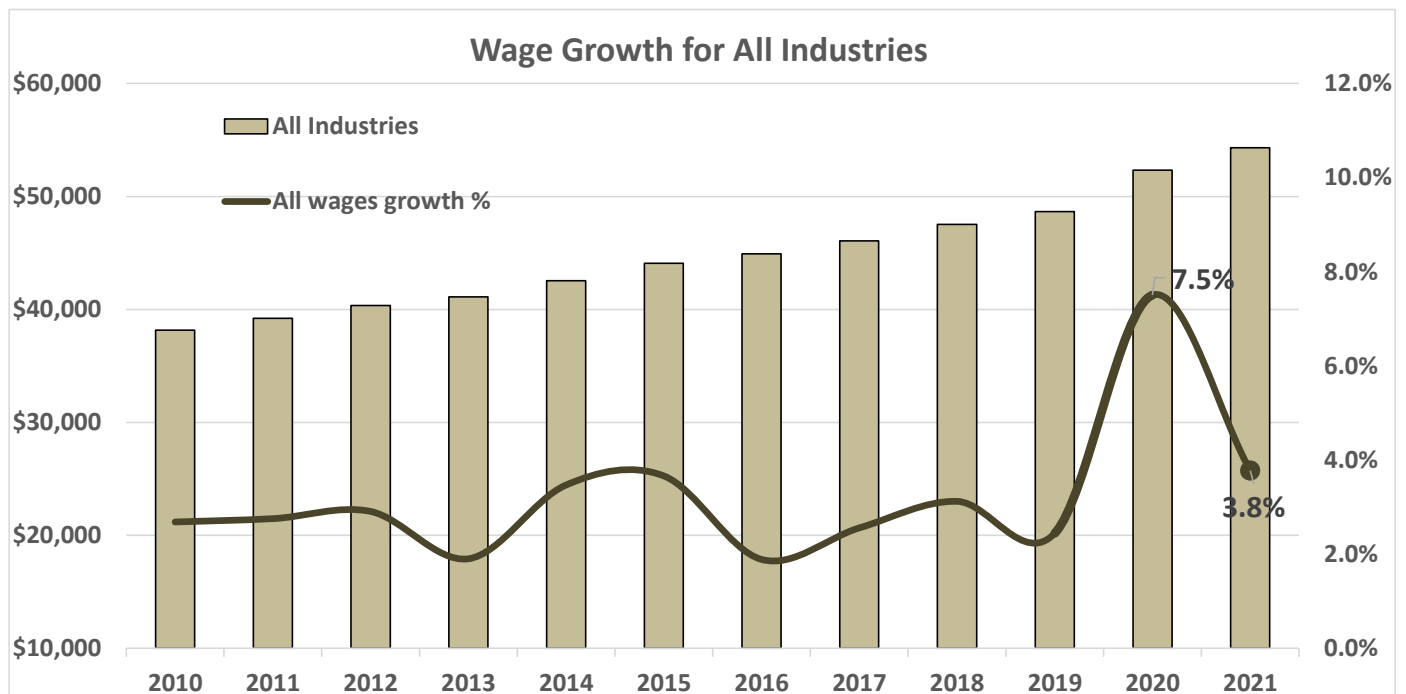
Iowa's average annual unemployment rate, the bell-weather metric, dropped to 4.2 percent in 2021, down from 5.1 percent in 2020. This statistic can be misleading when annualized, as the actual peak was 10.5 percent and occurred in April 2020 and quickly began falling as social-distancing measures slowly waned. The unemployment rate held at 2.5 and 2.6 percent in the prior two years. While the recovery was strong to end 2020 and into 2021, the household survey statistics did not return to pre-pandemic levels. The unemployment rate remained 1.6 percent higher than 2019's level and the number of unemployed Iowans held at 70,900.

On the establishment side, Iowa's employers added back 26,900 jobs in 2021, lifting total nonfarm employment to 1,535,600 jobs. This value bottomed out in April 2020, when quarantine measures were the most austere; these numbers have trended up since then. The most severe impacts were felt within leisure and hospitality which shed approximately half of all jobs. This sector ended 2021 down just 4.7 percent versus pre-pandemic levels.

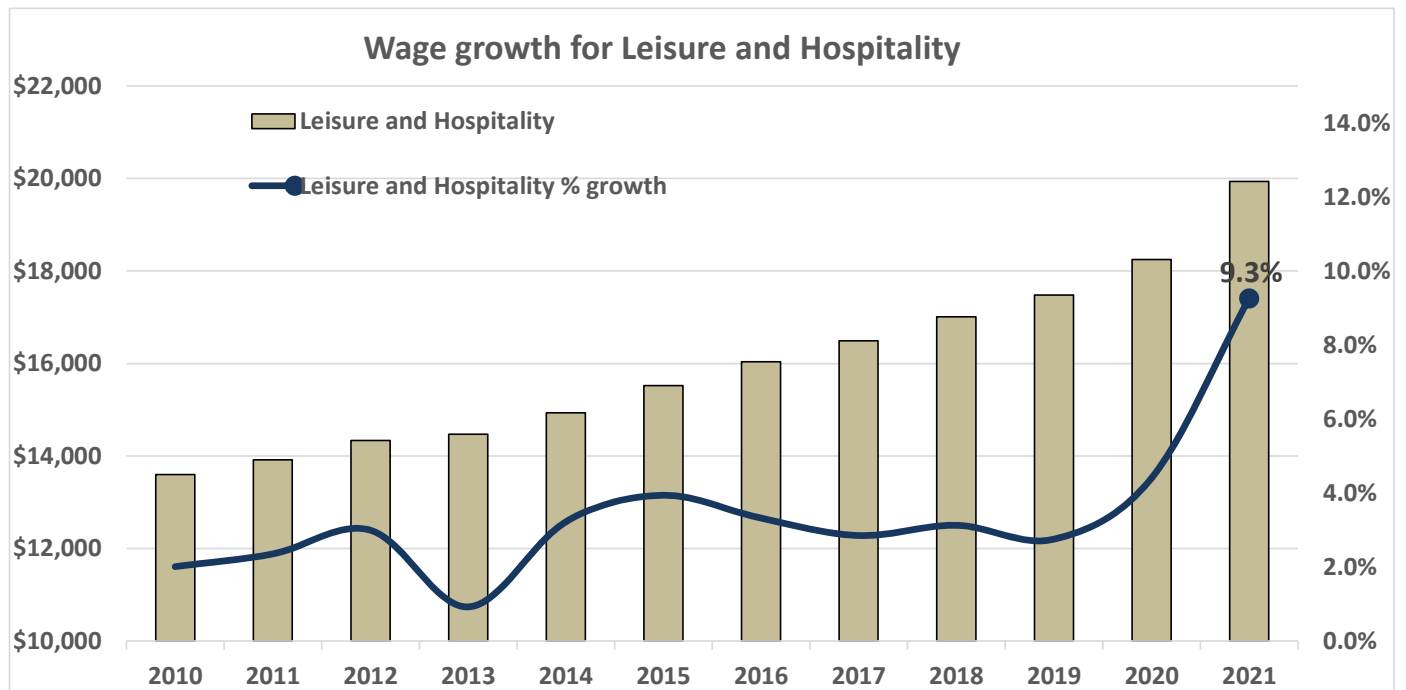
Other sectors losing the most jobs since pre-pandemic levels include information (-6.8 percent), education (-5.1 percent), and health care and social assistance (-5.1 percent). On the other hand, a few sectors weathered the storm well and have surpassed pre-pandemic levels to end 2021. These sectors include administrative support and waste management (+6.1 percent), transportation, warehousing, and utilities (+4.4 percent), and construction (+0.6 percent). Iowa's largest industry, manufacturing, recovered 1,100 jobs in 2021 and has shown some preliminary signs of expansion through 2022.

Wage Growth Accelerates over since COVID

While employment steadily increased in 2021, average wage growth was especially sharp during the pandemic. Some of this is the result of bonuses being paid to health care and other essential workers during the pandemic. Wage gains were also high due to long hours worked from essential staff filling in for absent workers. Wages increase by 7.5 percent for all industries in 2020 and 3.8 percent in 2021. (see below)



For leisure and hospitality workers, this sharp increase came more in 2021 as more firms opened to foot traffic but struggled to find workers. In 2021, wages increased to 9.3 percent. (see below)



Economy Moving Forward in 2022

Even with higher wages, economic growth was not enough to push the labor force and the number of working Iowans back into the job market. For a variety of reasons, it seemed Iowans would need more from employers beyond increased pay.

Lingering fears of the virus, childcare costs, retirement from baby boomers, etc. have all been evident and impeded growth in the U.S. labor force. Increasingly, businesses are offering new non-monetary benefits to entice individuals back into the workplace (Malinsky, G.). These benefits provide one of the best jobseekers' markets in history and include:

- remote work from home
- mental health and wellness benefits
- pay on demand
- signing bonuses

There seems to be some evidence that this has had some success. Through June of 2022, the nation is nearing pre-COVID levels in the establishment survey and could possibly pass the February 2020 peak in the second half of the year. Furthermore, Iowa's unemployment rate through June stands at 2.7 percent and rivals pre-COVID levels.

Yet the labor force participation rate has been slower to recover. Following a recent high of 70.6 in 2019, the participation rate has climbed back to just 67.8 percent through June of 2022, down 2.8 percent. At least some of this decline can be explained by an aging baby boomer generation exiting the labor force at an opportune time. Additionally, many individuals are remaining on the sidelines due to concerns with childcare, fears of COVID, or moving to gig/self-employment. This may present an issue with firms looking to expand in the second half of 2022.

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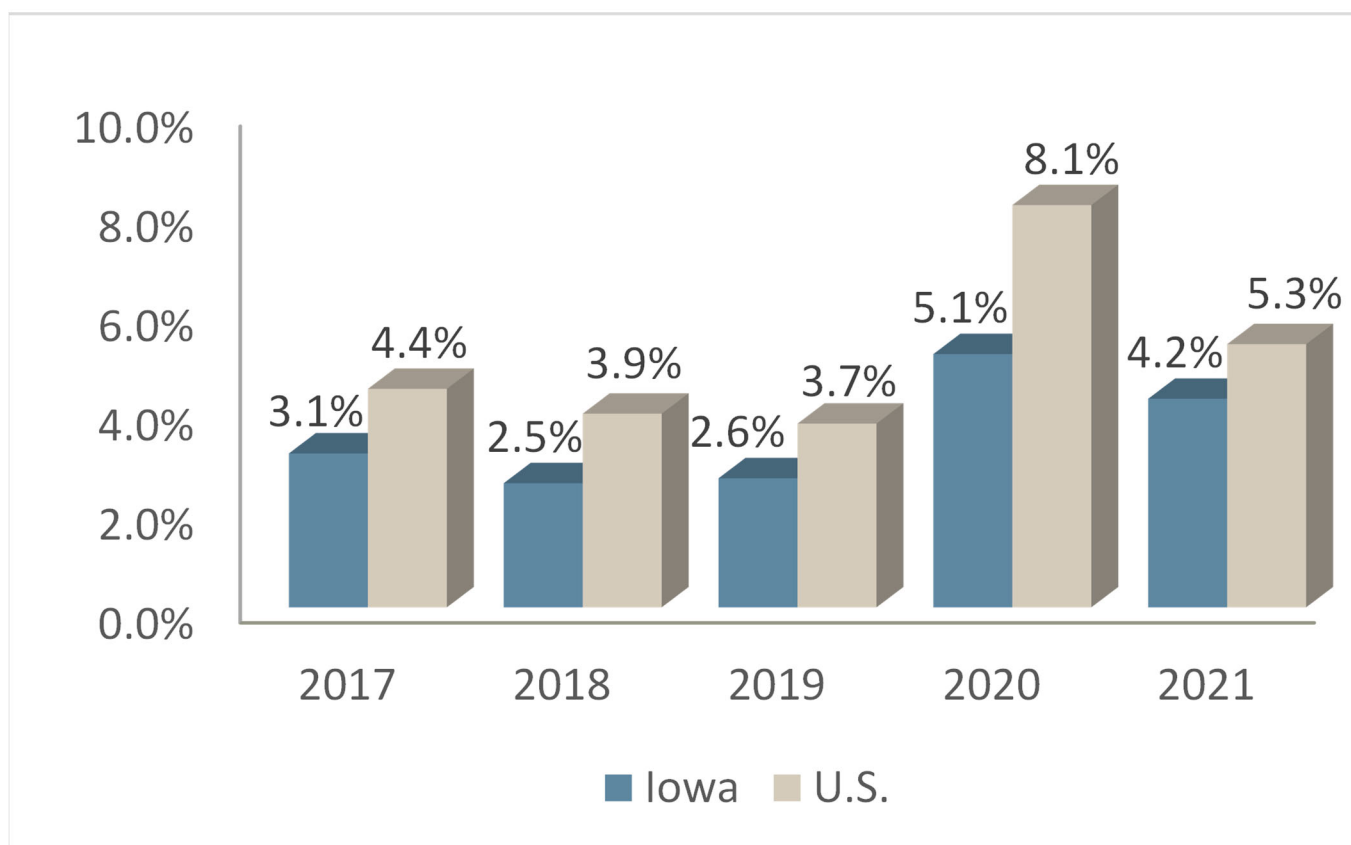
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State and Local Labor Force Trends

Written by Kris Henze

During 2021, Iowa began a slow return to normal after dealing with the Coronavirus in 2020. The statewide annual average unemployment rate decreased to 4.2 percent in 2021 from 5.1 percent in 2020. The U.S. rate for 2021 decreased to 5.3 percent from 8.1 percent for the prior year. Based on the state rankings for 2021, Nebraska had the lowest jobless rate among the states at 2.5 percent. Iowa ranked nineteenth and California had the highest unemployment rate at 7.3 percent.

Figure 1. Iowa and U.S. Unemployment Rates, 2017-2021



Source: Labor Market Information Division, Iowa Workforce Development, in cooperation with the Bureau of

The number of unemployed persons in the state averaged 70,900 in 2021, down from the prior year's 86,400. Men accounted for 54 percent of the unemployed compared to 46 percent for women. Minorities and youth continued to experience the highest rates of unemployment: youth, 16 to 19 years (8.7 percent), Black or African American (11.4 percent) and Hispanic (10.9 percent). Workers with less education continued to experience a higher unemployment rate than better educated members of the labor force: those with less than a high school diploma (11.8 percent), high school graduates with no college (2.6 percent), some college or associate degree (3.7 percent) and bachelor's degree and higher (2.1 percent).

Unemployment Rates Up Slightly in Most Metropolitan Statistical Areas (MSAs)

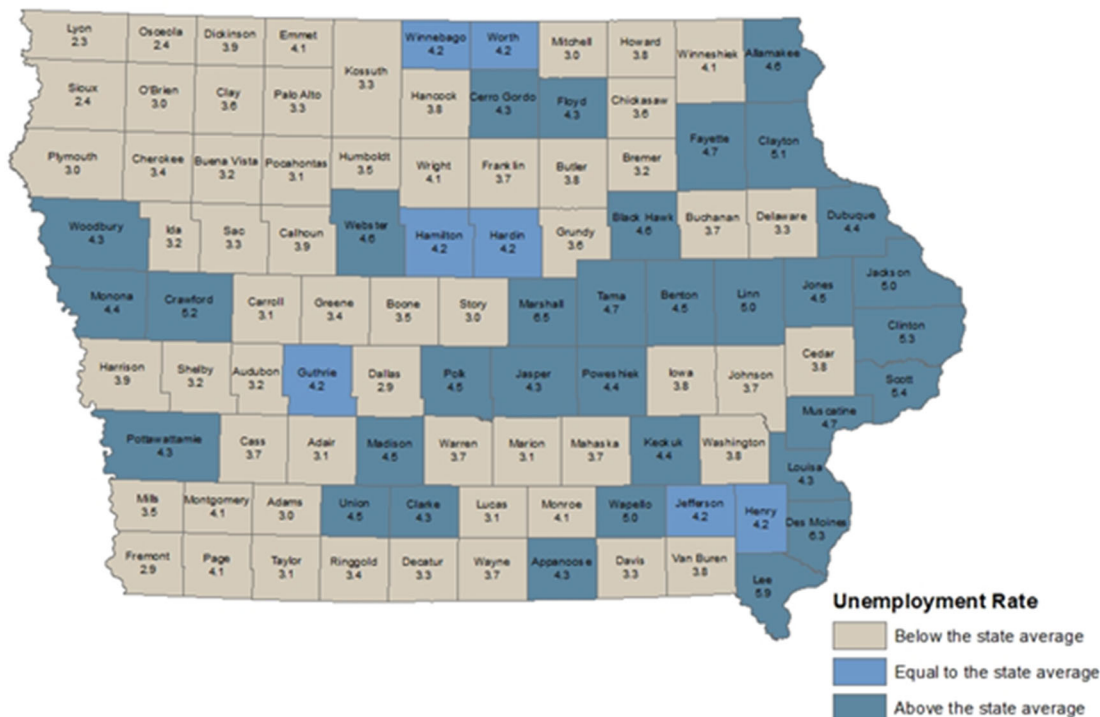
All the state’s metropolitan statistical areas (MSAs) experienced a decrease in their unemployment rates in 2021. County unemployment rates decreased in 96 counties. The Ames MSA and the Omaha-Council Bluffs MSA tied for the lowest rate of the nine major labor market areas at 3.0 percent. The Davenport-Moline-Rock Island MSA had the highest jobless rate at 5.4 percent. Jobless rates for all 99 counties ranged from a low of 2.3 percent in Lyon County to a high of 6.5 percent in Marshall County.

Figure 2. Metropolitan Statistical Area (MSA) Labor Force Summary 2021 Annual Averages

Metropolitan Statistical Area (MSA)	Labor Force	Employed	Unemployed	Unemployment Rate	
				2020	2021
Ames	57,400	55,700	1,700	3.5	3.0
Cedar Rapids	141,800	134,800	7,000	6.0	4.9
Davenport-Moline-Rock Island*	186,000	176,000	10,000	7.9	5.4
Scott County (Iowa Portion)	87,100	82,400	4,700	6.6	5.4
Des Moines-West Des Moines	362,000	346,800	15,200	5.4	4.2
Dubuque	55,000	52,500	2,400	5.7	4.4
Iowa City	95,800	92,200	3,600	4.6	3.7
Omaha-Council Bluffs*	499,400	484,500	14,900	4.7	3.0
Harrison County (Iowa portion)	7,000	6,800	300	4.0	3.9
Mills County (Iowa portion)	7,000	6,700	200	3.9	3.5
Pottawattamie County (Iowa portion)	47,000	45,000	2,000	5.2	4.3
Sioux City*	91,700	88,200	3,500	4.7	3.8
Woodbury and Plymouth Counties (Iowa portion)	69,200	66,400	2,800	4.8	4.0
Waterloo-Cedar Falls	87,400	83,700	3,800	5.5	4.3

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

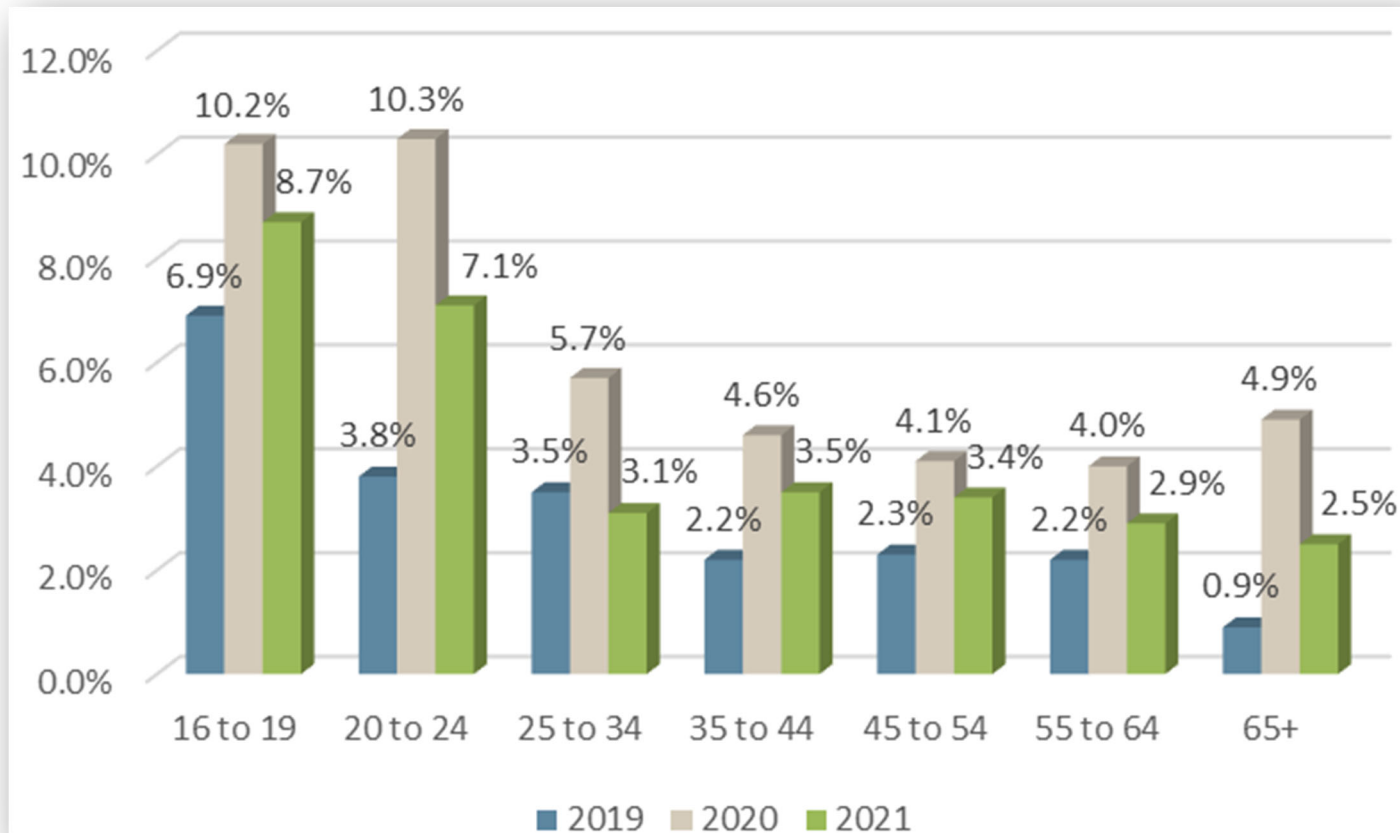
Figure 3. 2021 Annual Average Unemployment Rates by County



Source: Labor Market Information Division, Iowa Workforce Development

The only group that recovered from the pandemic is the 25 to 34 year-olds. The unemployment rate for this group was 3.5 percent in 2019 and increased to 5.7 percent during 2020, but fell below the 2019 rate in 2021.

Figure 4. Unemployment Rates by Age Group



Source: Census Bureau, Current Population Survey

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Total Nonfarm Employment Year at a Glance

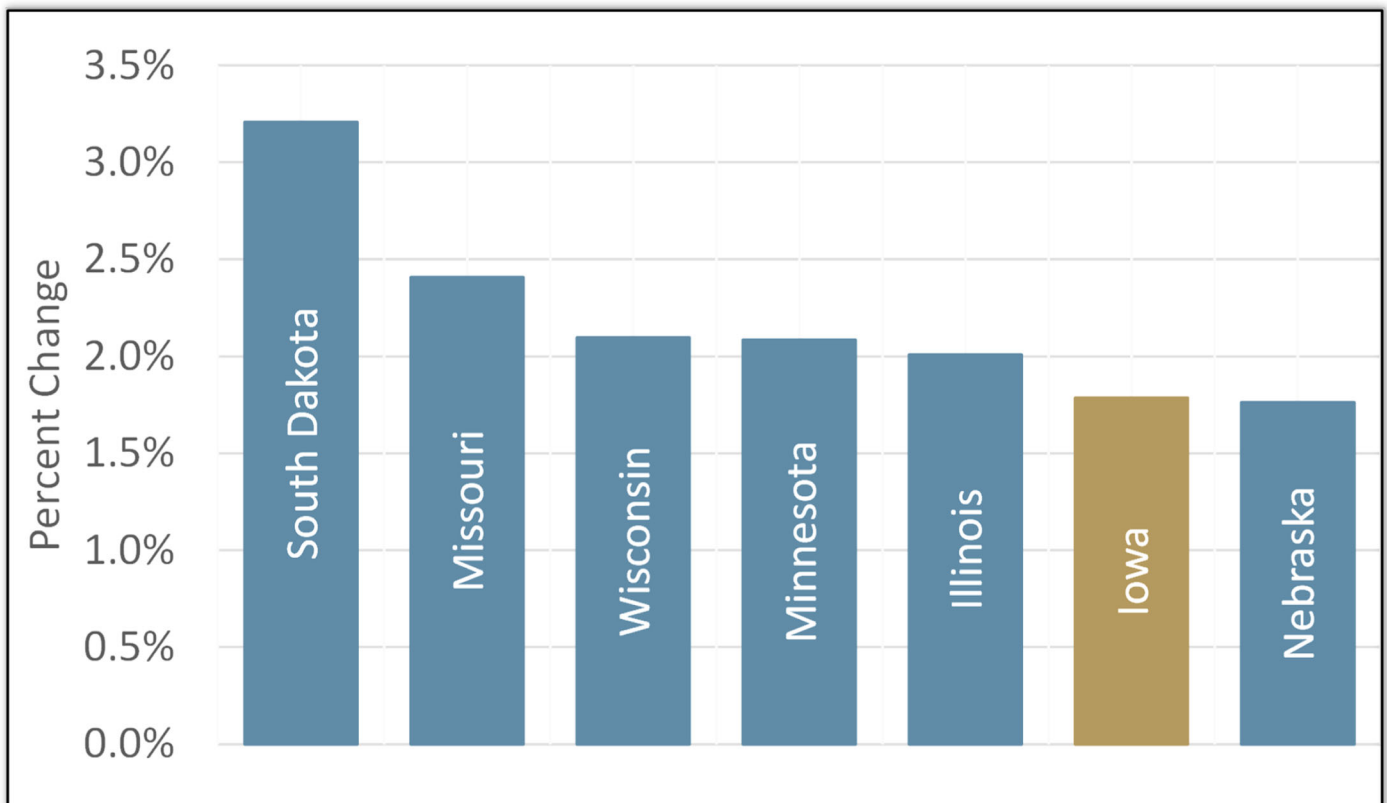
Written by Dennis Schwartz

Iowa's employment continued to rebound in 2021 from the significant setback experienced as a result of the Covid-19 pandemic which began in April 2020, when the state lost 10.7 percent of total nonfarm employment (seasonally adjusted), compared to March 2020. The state ended 2021 with employment at its' highest level since the pandemic began. However, December employment remained more than 30,000 jobs (1.9 percent) below the March 2020 level. The 2021 annual average employment was 26,900 above the 2020 annual average.

Employment demonstrates an upward trend through 2021 with only three of the twelve months (February, April and August) experiencing a setback. However, all three were minimal disruptions ($\leq 2,000$) to an otherwise productive year. The three super-sectors with reductions in employment levels when compared to 2020 annual averages include; information (-200), financial activities (-300), and health care and social assistance (-600). In addition, a handful of sub-sectors pared employment with durable goods manufacturing taking the biggest hit (-900). State government was close behind with 800 fewer jobs. Leisure and hospitality, the super-sector most negatively affected by the pandemic, has reclaimed 90.7 percent of the jobs lost in April 2020 (based on the 2021 peak value of 135,800 jobs which occurred in November).

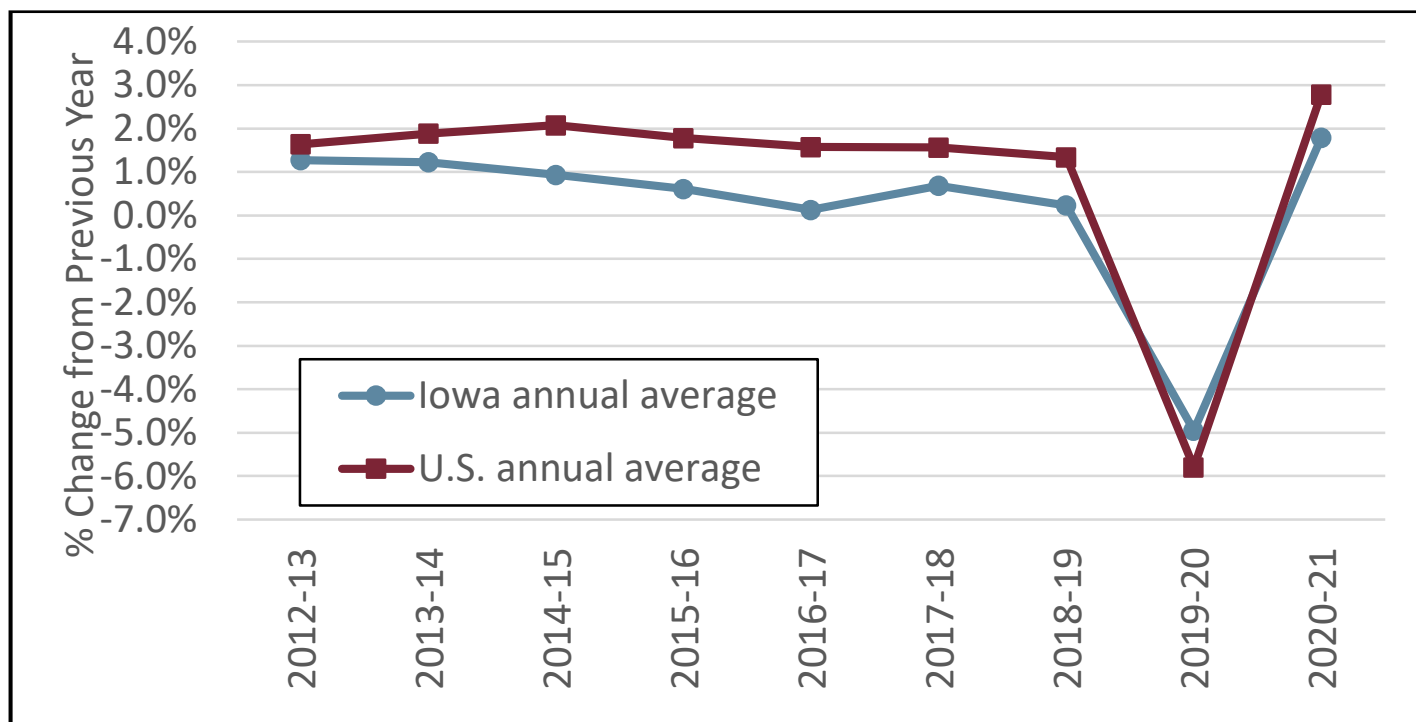
As illustrated in Figure 1, when compared to surrounding states, Iowa's rate of employment gain ranked sixth out of a seven-state field. All surrounding states experienced employment gains with South Dakota leading the pack with a 3.2 percent gain. Iowa's rate of gain was 1.8 percent, narrowly edging out Nebraska's 1.8 percent gain. In 2020, Iowa was in the middle of the pack regarding employment losses.

Figure 1. Employment Percent Change 2020 to 2021



For eight of the last nine years, the national annual rate of employment growth has outperformed that of Iowa. As seen in Figure 2, the only exception was 2019 to 2020 when Iowa's rate of contraction was lower than the national reduction rate. In 2021, the nation's rate of growth was 2.78 percent, compared to Iowa's 1.79 percent.

Figure 2. Iowa/U.S. Total Nonfarm Employment (Annual Percent Change)



Nonfarm Employment Industry Movement

As previously stated, leisure and hospitality led all super-sectors in percent of employment gained from 2020 to 2021 adding 8.5 percent to its annual average, which translates to 10,000 jobs. The leisure and hospitality super-sector trimmed 100 jobs in August and 800 jobs in December, the only two exceptions to an otherwise productive 2021. Job gains in the other ten months resulted in a January-to-December increase of 14,000 jobs. The leisure and hospitality super-sector employment level, by the end of 2021, remained below the March 2020 value, but impressive gains had been achieved. For various reasons, many establishments have been slow to return to a full schedule, consequently it is likely we will continue to see some gains in this area in the future.

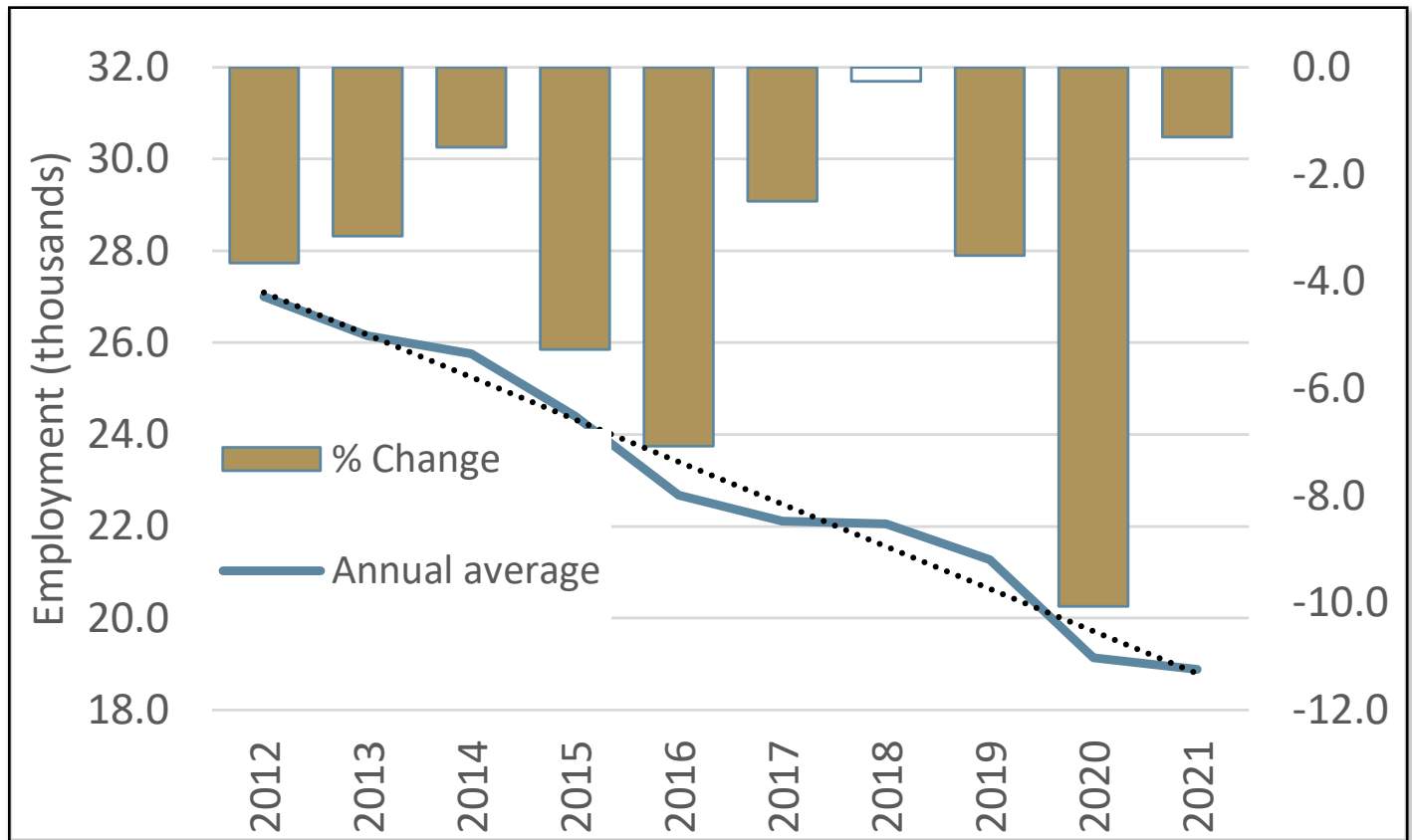
Trade, transportation and warehousing super-sector experienced a 2.5 percent gain which represents the super-sector's largest over-the-year gain in the last eighteen years and follows four consecutive years of employment declines. The trade, transportation and warehousing super-sector dropped 27,000 jobs from March to April 2020 and ended 2021 with 30,400 more jobs than the April 2020 level. The end-of-year value was at its' highest level since September 2018. Annual gains were largely inspired by additional jobs in the transportation, warehousing and utilities sub-sector which gained 3.4 percent. As with leisure and hospitality, the transportation, warehousing and utilities sub-sector enjoyed gains in ten of the twelve months.

Manufacturing gained 1,100 jobs (+0.50 percent) from the previous year with non-durable goods manufacturing providing enough boost (+2,000 jobs) to overcome a loss of 900 jobs in durable goods manufacturing. Despite the somewhat muted year-to-year gains, both manufacturing sub-sectors gained jobs through the year (January to December 2021). Durable goods manufacturing has yet to achieve an employment level equal to the pre-pandemic level. Employment since March 2020 has fallen 5,500 jobs short of its peak reached in August, September and October 2021 (122,300 jobs).

The majority of sectors have struggled to return to the employment levels of March 2020. There are a few exceptions when comparing the 2021 end-of-year values to the March 2020 values. Sectors that have gained an equal or greater number of jobs include: trade, transportation and warehousing (+3,400), professional and business services (+800), and construction (+200). Conversely, educational and health services ended the year with 12,100 fewer jobs than the March 2020 level, although its peak employment (March 2021) was within 8,100 of the March level. Government, leisure and hospitality, and manufacturing are the three sectors with the largest deficits from the March 2020 level; however, all three have made strides in their effort to regain employment.

Information continues to be the only sector demonstrating a continuous downward trend. As Figure 3 illustrates, the sector has lost employment each of the past ten years based on annual average employment.

Figure 3. Information Employment



Other Economic Indicators

Corn prices offered some much-needed relief for the agriculture industry through the year based on Iowa State University Extension and Outreach data (annual averages). The price Iowa farmers received for corn averaged \$5.48 per bushel in 2021, up \$2.00 (57.5 percent) from 2020. This is the greatest percentage increase in recent history and represents the best price since 2013 when the price per bushel averaged \$6.23. The price of soybeans also made the largest percentage gain in recent history, jumping 46.2 percent. The 2021 average price per bushel was \$13.13, adding \$4.15 from the previous year. At its peak in May 2021, soybeans were selling for \$14.80 per bushel.

According to the Iowa Association of Realtors, home sales in Iowa increased 4.6 percent from 2020 to 2021. The number of closed sales moved from 41,189 in 2020 to 43,092 in 2021. The average sale price of homes, \$231,596, represents an increase of 10.2 percent from 2020.

According to 2021 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, increased 16.1 percent (2,038 units). This marks the third consecutive year of gains in permits issued (all structures). The total value of permits issued increased 19.8 percent.

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2020 Census: Impact on Iowa's Population and Labor

Written by Brent Paulson

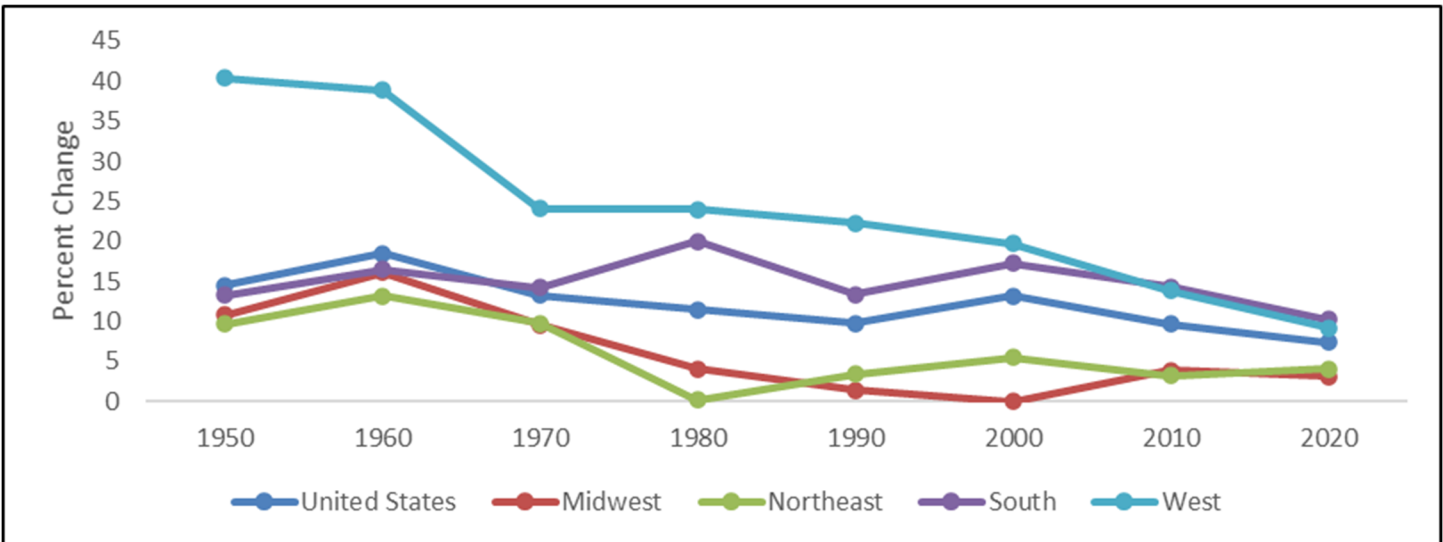
The U.S. Census Bureau's 2020 decennial population data lends credence to existing population trends at the national, state, and local levels. Iowa's modest growth trend assured a population above 3 million, increasing from 3,046,355 in 2010 to 3,190,369 in 2020. In addition, Iowa's Metropolitan Statistical Areas (known as MSAs and consisting of at least one urbanized area with a population of 50,000 or more) showed significant growth. Yet, Iowa's growth rate remained below the national average with a majority of its mostly rural counties suffering declines, many being quite severe. Geography, urbanization, fertility, immigration, and other socio-economic factors help to explain these trends with some highlighted in this article.

Iowa and the Nation

The nation grew at its second slowest rate ever at 7.4 percent from 308,745,538 in 2010 to 331,449,281 in 2020. Nearly two thirds of the nation's population growth since 2010 (approximately 14.9 million) can be attributed to the top ten states: Texas, Florida, California, Georgia, Washington, North Carolina, New York, Arizona, Colorado, and Virginia (and nearly 45 percent of the nation's population growth comes from the top four states). Iowa ranked 30th in population growth. Utah, Idaho, Texas, North Dakota, Nevada, Colorado, Washington, Florida, Arizona, and South Carolina lead the nation in terms of rate of growth with each experiencing over 10 percent growth the last ten years. Iowa ranked 28th with a 4.6 percent growth rate over the same period.

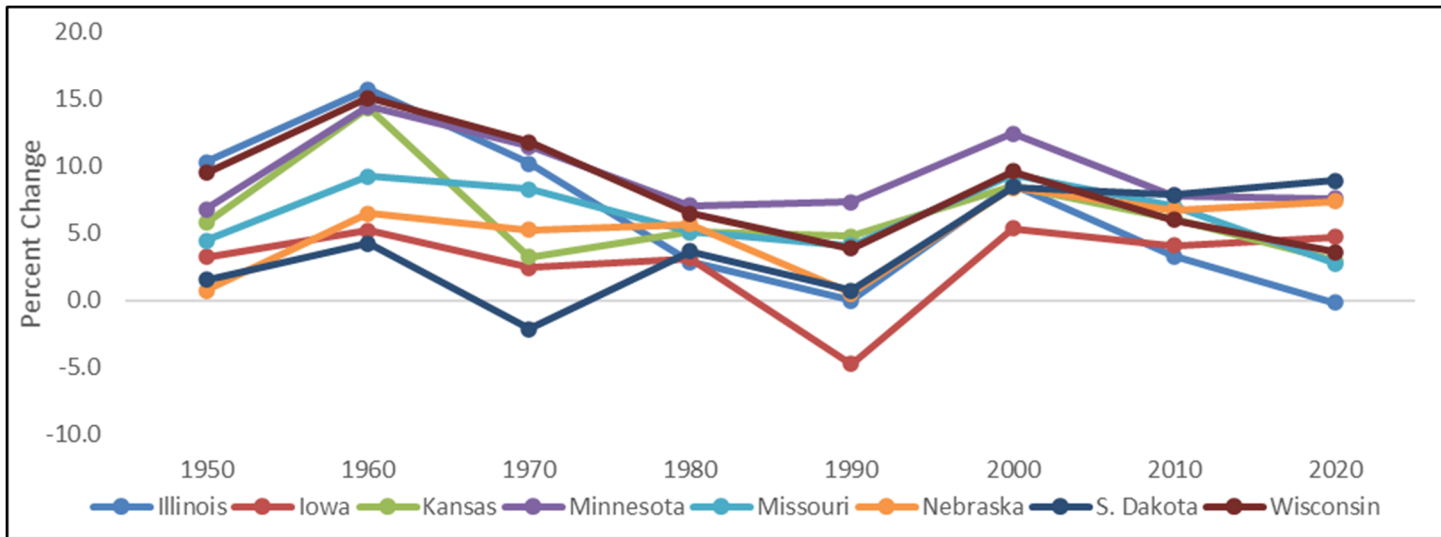
Iowa and the Midwest trail significantly in percentage population growth when compared with other regions of the country as Figure 1 illustrates. For the past several decades, the South and West regions grew at substantially higher rates. Cost and climate help explain the migration patterns.

Figure 1. U.S. and Regional Population Growth by Decade



In comparison to many Midwestern states, Iowa lags in population growth through the decades including the most recent 2010 to 2020 period. Figure 2 provides a population growth comparison since 1950 between Iowa and neighboring states. Simply put, Iowa has not led in population growth and, as a result, its labor force.

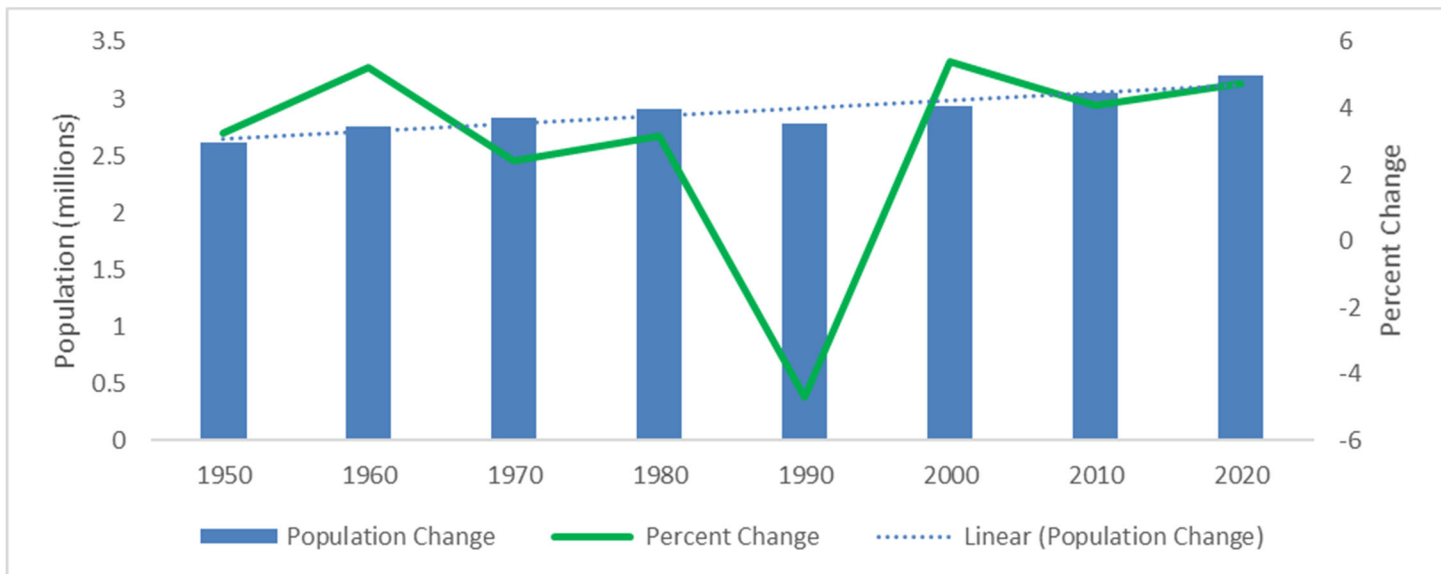
Figure 2. Midwest Population Growth by Decade



Iowa and the Local Level

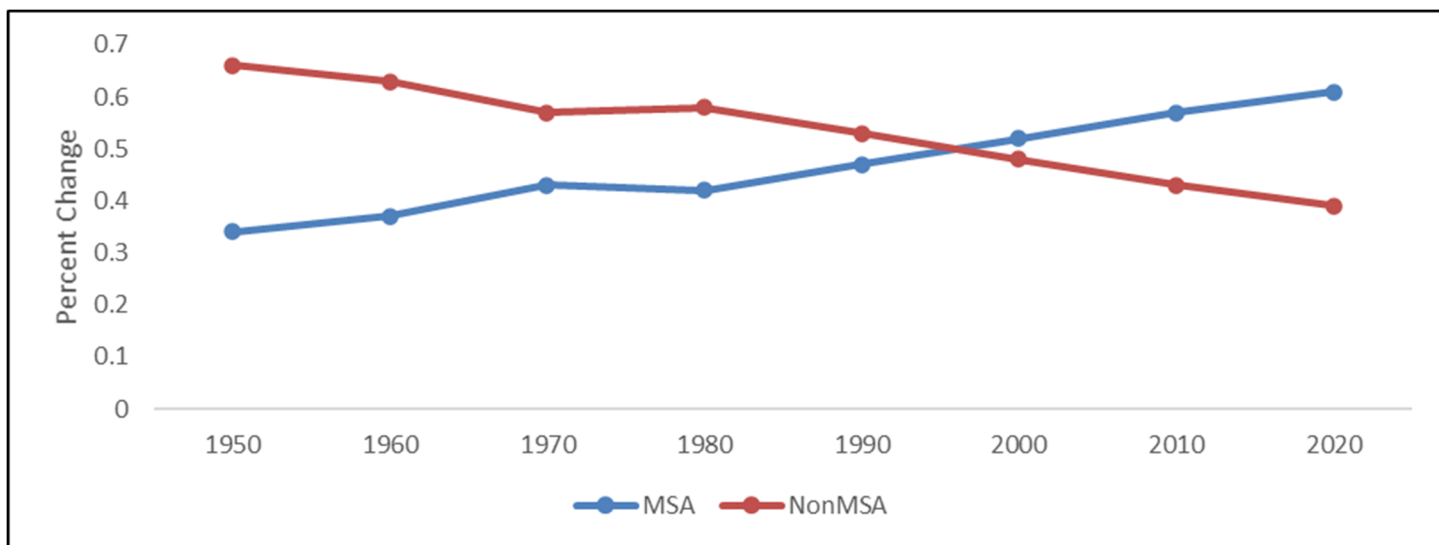
After the 1980s when Iowa lost 4.7 percent of its population due to a farm recessionary crisis, the state's population has rebounded comparatively well. As Figure 3 denotes, Iowa has since enjoyed a 5.4 percent population gain in the 1990s, 4.1 percent in the 2000s, and a most recent 4.6 percent increase the 2010s. In raw numbers, Iowa's population has increased by 413,614 during this period. At no time during the past 100 years has Iowa experienced greater population growth for consecutive periods than the past three decades. Indeed, only twice in the past century has Iowa increased faster than 4 percent (5.2 percent from 1950-1960 and 8.1 percent from 1910-1920). Noticeably, the trend line indicates continued modest population growth.

Figure 3. Iowa Population Growth by Decade



Long running trends continue to develop in Iowa's sub state areas. The Metropolitan Statistical Areas, for example, are ascending in population growth while non MSA areas generally are not. Figure 4 provides illustrative evidence of this divergent population dynamic. Of Iowa's MSAs, six are located entirely within the state's borders (Ames, Cedar Rapids, Des Moines-West Des Moines, Dubuque, Iowa City, and Waterloo-Cedar Falls) and three involve a contiguous state's population area (Omaha-Council Bluffs, Davenport-Moline-Rock Island, and Sioux City). According to the 2020 Census data, Iowa's fastest population growth resides in the Ames-Des Moines and Cedar Rapids-Iowa City corridors. Conversely, Iowa's rural, non MSA areas are facing population declines with some being severe, specifically counties in the West, North Central, and South regions.

Figure 4. Percent of Iowa MSA and Non MSA Population by Decade



Fertility and Immigration

Factors affecting population growth include *fertility* and *immigration*. With respect to fertility, the *Total Fertility Rate* (or *TFR*) is a statistic measuring the average number of children that will be born to a woman over her lifetime. In the industrialized world, a *TFR* of approximately 2.1 births per woman is critical to replace and/or maintain a country's population. Current *TFR* standings of 1.84 for the U.S. (2021) and 1.82 for Iowa (2020) indicate that the fertility rate for the native-born population is below the replacement level. Consequently, population growth heavily dependent upon fertility rates alone is not sustainable.

Immigration reveals something different. As an illustration, **Figure 6** takes a point in time look at the foreign-born population and their decade of entry into the U.S. From 2010 to 2019, for example, immigrants primarily came from Asia (40.2%), Latin America (39.7%), Africa (8.9%), Europe (8.5%), Northern America (1.8%), and Oceania (0.9%). Although the numbers are quite balanced, this period also reflects Asian immigrants supplanting Latin America as the largest place of origin of immigrants. Time will tell if this denotes a temporary change or an actual shift in immigration trends.

The 2020 Census confirms a continuing trend for racial and ethnic minority growth. As portrayed in **Figure 7**, from 1990 through 2020, many minority and ethnic populations enjoyed significant population growth. Latinos, Iowa's largest minority and ethnic immigrant group, along with black, Asian, Other, and Two or More Races have more than doubled in population since 1990. Continued immigration trends are likely to spur greater minority and ethnic growth.

Figure 6. U.S. Foreign-Born Population with Decade of Entry and Place of Origin

Immigration Period	Before 2000	2000 to 2009	2010 to 2019
All Foreign Born	23,003,330	11,077,720	10,044,070
Place of Origin (%)			
Europe	13.2	8.1	8.5
Asia	28.5	28.9	40.2
Africa	3.2	6.7	8.9
Oceania	0.5	0.6	0.9
Latin America	52.4	54.4	39.7
Northern America	2.2	1.3	1.8

Figure 7. Race and Latino Origin in Iowa by Decade

Race and Ethnicity	1990	2000	2010	2020
White	96.6	93.9	91.3	84.5
Black	1.7	2.1	2.9	4.1
American Indian	0.3	0.3	0.4	0.5
Asian/Pacific Islander	0.9	1.3	1.8	2.5
Other	0.5	1.3	1.8	2.8
Two or More Races	n/a	1.1	1.8	5.6
Total	100	100	100	100
Latino and Race				
Latino, Any Race	1.2	2.8	5.0	6.8
White, Non Latino	95.9	92.6	88.7	82.7
Total	97.1	95.4	93.7	89.5

Due to relatively low fertility and state-to-state migration rates, immigration is a prime source for both Iowa and national population growth. Absent immigration, state and national population growth would be a major challenge. Should Iowa and the nation seek a larger labor force and thus greater economic growth, in-migration from other states and countries is critical to that end.

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Iowa Industry Projections Summary, 2020-2030

Written by Chap P. Deit

Industry employment in Iowa is projected to add 198,915 nonfarm jobs in the next 10 years: 2020-2030. Industry employment will increase to 1,854,185; that is a 12 percent increase from the current 1,655,270 base. Nationally, the U.S. is expected to add 11.9 million jobs in the same decade; employment will grow 7.7 percent and increase to 165.4 million jobs by 2030, according to the U.S. Bureau of Labor Statistics (BLS) 2020-2030 industry projections.

Because of the impact of COVID-19 (low base effect), the 2020-2030 projections growth rate is 3.7 percentage points higher than the 2018-28 industry projections for Iowa, and the national industry projections growth rate is 2.7 percentage points higher than the 2018-28 projections period.

The healthcare and social assistance industry is projected to add the most jobs in the next ten years driven by an increase in the number of aging populations. Adaptation of new technologies and demand for continuous change will support solid jobs gains in the professional and business services. The ongoing adaptation of e-commerce will continue to support growth in transportation and warehousing. Educational services will benefit from a growing need for workers upskilling and reskilling, and from a greater digital economy. Meanwhile, administrative, support and waste management, and leisure and hospitality sectors will continue to recover from the virus-induced recession of 2020.

Figure 1 provides a summary of the major sectors, for complete sector-by-sector industry projections click on the following link: [Industry Projections](https://www.iowaworkforcedevelopment.gov/industry-projections) <https://www.iowaworkforcedevelopment.gov/industry-projections>

Figure 1. Projected Employment Change by Major Sectors, 2020-2030



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

Employment and Participation Rate

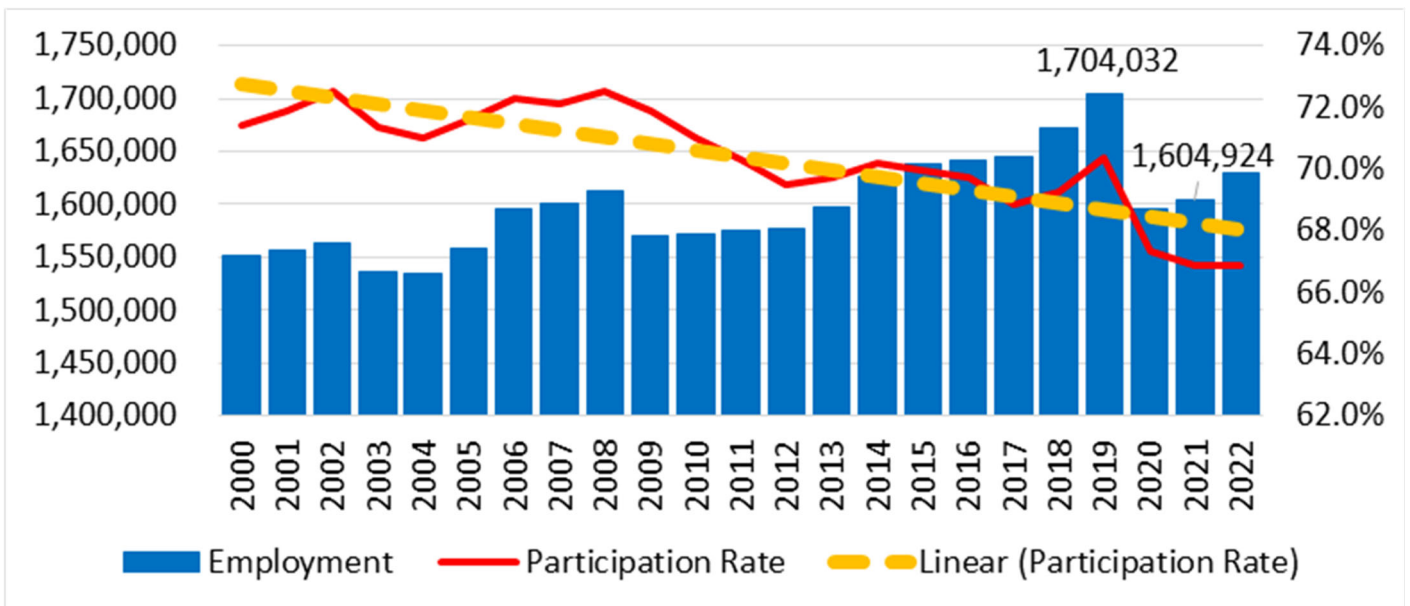
As shown in Figure 2, the average number of people employed in Iowa peaked at 1.7 million in 2019. In comparison, the average nominal annual employment stood at 1.6 million in 2021; that is 99,119 below the pre-pandemic level. Nationwide, employment was still down 4.9 million, from 157.5 million to 152.6 million for the same timeframe.

The labor force participation rate, which is defined as the percentage of the civilian non-institutionalized population aged 16 and over that is working or actively looking for work, was still down 3.4 points in 2021 from a high of 70.3 in 2019 for Iowa. Nationally, the participation rate was still down 0.8 points from the same timeframe.

Figure 2 shows the labor force participation rate and the level of employment for Iowa since 2000. As the graph shows, Iowa’s labor force participation rate displayed a clear downward linear trend. For example, it was at 72.5 percent in 2002; the participation rate has trended steadily downward and rebounded to 70.3 percent before the impact of COVID-19. Iowa generally ranks in the top of the nation in terms of the labor force participation rate. For instance, the U.S. labor force participation rate hit an all-time high in 2000 at 67.1 percent; Iowa was much higher at 71.2 percent in the same timeframe.

As of March 2022, the labor force participation rate in Iowa is still below pre-pandemic levels: down to 66.9 percent from 70.3 percent. It is tracking at 62.4 percent from 63.1 percent nationally. The decline in the labor force participation rates in Iowa is much larger than the unemployment numbers, which suggests that some people are not actively looking for work: some workers dropped out of the labor force.

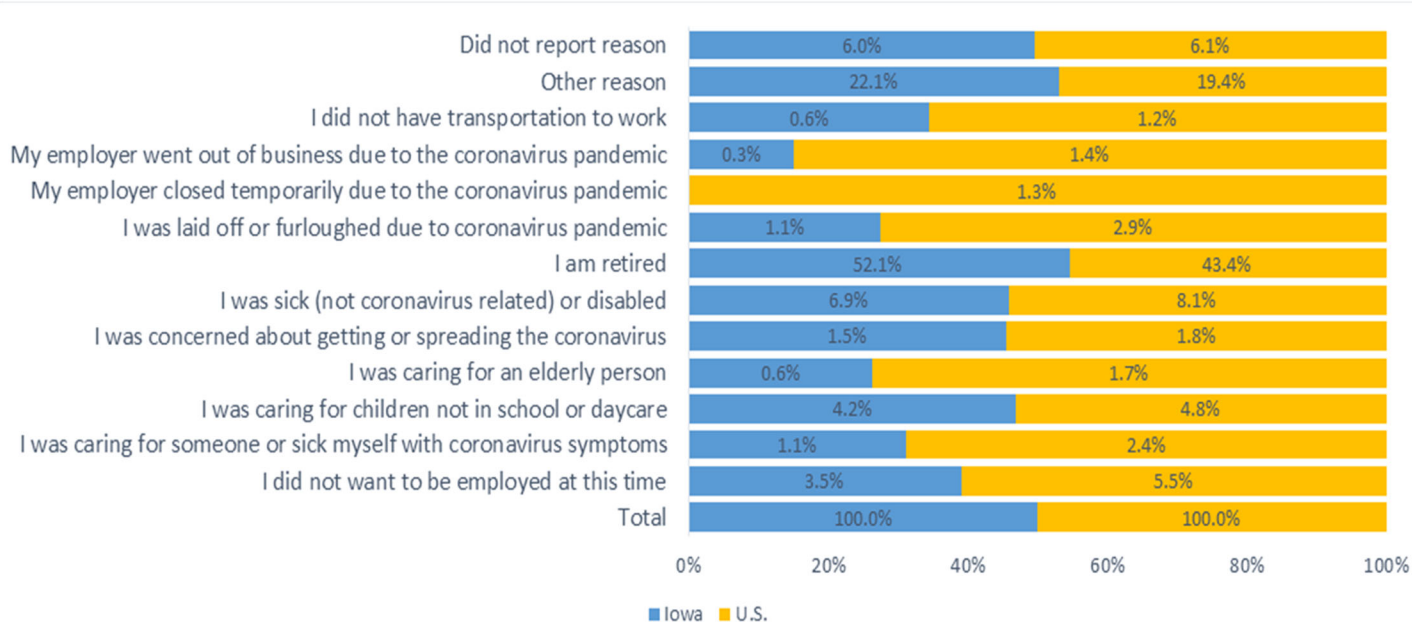
Figure 2. Iowa Employment and Participation Rate



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

Prior to the COVID-19 pandemic, the labor force participation rate was expected to decline 0.3 percentage points annually due to the underlying aging population, but the onset of COVID-19 seems to have accelerated that trend: the decline in the labor force participation rate is attributed to demographic change (i.e., baby boomers leaving the labor force for retirement). According to the Census Household Pulse Survey result from March 30 to April 11, 2022 a majority (52.1 percent) of respondents in Iowa were retired, it is 43.4 percent nationally. Next, 22.1 percent of the respondents in Iowa gave other reason for not working, while others gave being sick or disabled, and caring for children as some of the reasons. Figure 3 provides a summary of reasons for not working for Iowa and the U.S.

Figure 3. Reasons for not working

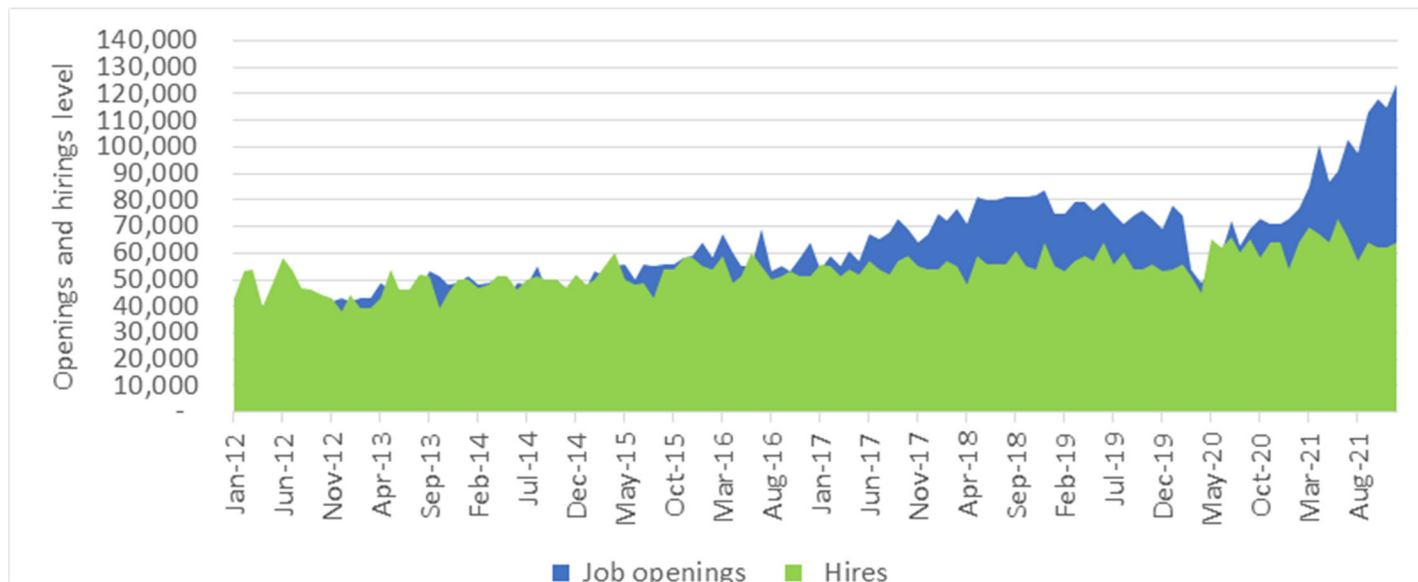


Source: U.S. Census Bureau Household Pulse Survey, Week 44.

Labor Demand in Iowa

The Bureau of Labor Statistics Job Openings and Labor Turnover Survey (JOLTS) estimates show that labor demand is strong in Iowa. As Figure 4 shows, many businesses in Iowa are struggling to fill openings due to lack of qualified workers at all skill levels. The graph shows job openings and hiring levels for Iowa since 2012, which show a higher number of job openings compared with hiring levels. Higher job openings is a sign of unmet labor demand, which indicates the employer needs an additional employee, while a raised hire level indicates that enough employees are available and willing to work.

Figure 4. Job openings and hirings level, seasonally adjusted.



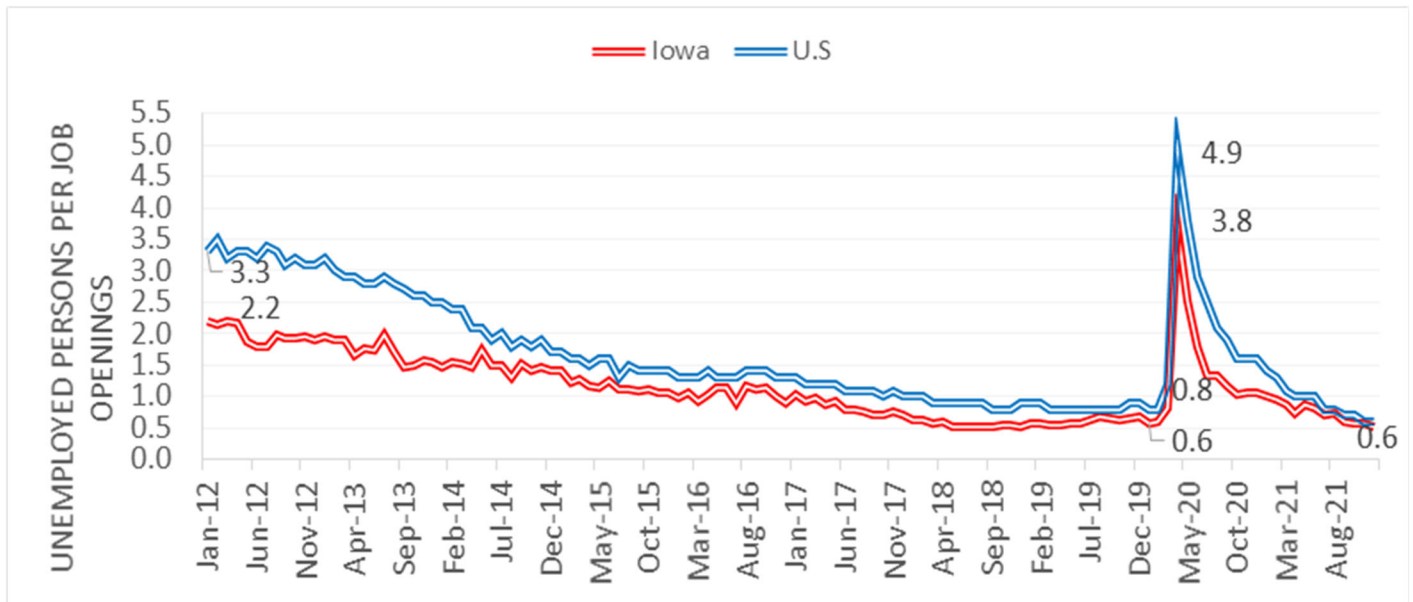
Source: Job Openings and Labor Turnover Survey, U.S. Census Bureau

Labor Market Dynamic in Iowa

The best 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 provide the dynamics of the labor market condition: the job openings level captures 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. A higher ratio indicates that there are more unemployed persons looking for work.

Figure 5 is a graph of the monthly ratio of job openings per unemployed persons since 2012. The plot shows that the ratio of unemployed per job opening for Iowa stood at 2.2 in January 2012, indicating that more people were looking for jobs than the number of jobs employers had to offer. The ratio started to decline shortly after that and trended downward to 0.6 by January of 2020, showing that since 2016 Iowa has experienced a tight labor market. Nationally, the ratio of unemployed per job opening trended downward to 0.8 from 3.3 in January 2012. During the peak of the virus-induced recession of 2020, the ratio of unemployed per job openings spiked to 3.8 and 4.9 for Iowa and the U.S., respectively, showing the impact of lockdowns caused by the pandemic. The monthly ratio of unemployed per job opening has hovered near 0.6 since February of 2022, indicating that Iowa continues to endure a tight labor market.

Figure 5. Number of unemployed persons per job opening ratio, seasonally adjusted.



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

Conclusions

The pandemic has intensified the already tight labor market in Iowa. The COVID-19 health concerns have accelerated retirement for the baby boomers, meaning labor market tightness will persist for a while. The high level of labor demand means job seekers have more opportunities for better pay and better benefits. At the margin, we expect employment levels to improve slightly as fear of contacting COVID-19 fade away and the virus shifts to endemic phase, and workers choose to re-enter the labor market. Adaptive work environments, greater flexibility in the work arrangement, and better wages will encourage some workers back into the labor market. In the long run however, Iowa will not see a substantial gain in the labor force participation rate without major structural changes, particularly given the growing rates of the aging population. Iowa would benefit more by growing its population to maintain its labor force participation rate and expand its economy.

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An Analysis of Teleworkers and the Changing Dynamics of the Workplace

Written by Katie Lippold

The statewide Laborshed survey conducted by Iowa Workforce Development, in partnership with the Iowa Economic Development Authority, is a survey of Iowa residents which captures a wealth of data related to their workforce characteristics. This includes information about their employment status, likeliness to change jobs or re-enter the workforce, job experience (job titles and industry of employment), wage information, current/desired benefits, education/skills, and job search resources used – just to name a few. In 2021; however, a couple new questions were added.

Due largely to the impact that the COVID-19 pandemic had on the workplace, in 2021, questions regarding individuals' workplace location were added. The purpose of this was to examine the percentage of individuals who telework (or work from home) versus those who work in a more traditional setting (that is, at an employer's location). As this is the first full year of data collection with these additional questions we are not able to provide historical trends to see how workplace environments have changed over time. However, we can look at some demographics and workforce characteristics of respondents to determine how those who primarily telework differ from those who primarily work at an employer's location.

The results were drawn from a sample of 6,000 surveys across the State of Iowa. Of these, 4,959 respondents (82.7 percent) identified themselves as employed. These respondents were asked to identify the type of work locations they used. The four options given were: 1) work from home; 2) work at an employer location; 3) work at a customer jobsite; and 4) travel for work. Respondents were allowed to select all that apply. The results show that while 63.8 percent worked in a traditional setting (at an employer location); nearly one-fourth (24.2 percent) teleworked at least part of the time in their employment.

The follow-up to this question was: Where do you spend the *majority* of your time working? Though the results were similar, just less than three-fifths (59.4 percent) reported they work in a traditional environment; while 20.0 percent reported they primarily telework. The remainder work primarily at a customer job site (12.9 percent) or travel (7.7 percent).

When we compared some demographics between teleworkers (those who primarily work from home) and traditional workers (those who primarily work at an employer location) we detected some differences. For instance, the median age of respondents who were teleworkers was 45, slightly higher than the median age of respondents who were traditional workers (43). Additionally, teleworker respondents were more likely to be female (55.0 percent) than traditional workers whose gender distribution was even (50.0 percent males and 50.0 percent females). Regarding their education level, the percentage of teleworkers with a Bachelor's degree or higher (53.9 percent) was 14.3 percentage points higher than traditional workers (39.6 percent).

When looking at job satisfaction, 23.0 percent of teleworkers stated that they are "very likely or somewhat likely" to change their employment situation, if they found the right opportunity, compared to 32.4 percent of traditional workers who are interested in changing their employment situation. For both groups, the top reason to change jobs was for better wages (reported by 39.9 percent of teleworkers and 47.9 percent of traditional workers). However, the second highest reason for teleworkers (21.9 percent) was for a career change while the second highest reason (15.6 percent) was to change jobs among traditional workers was working conditions.

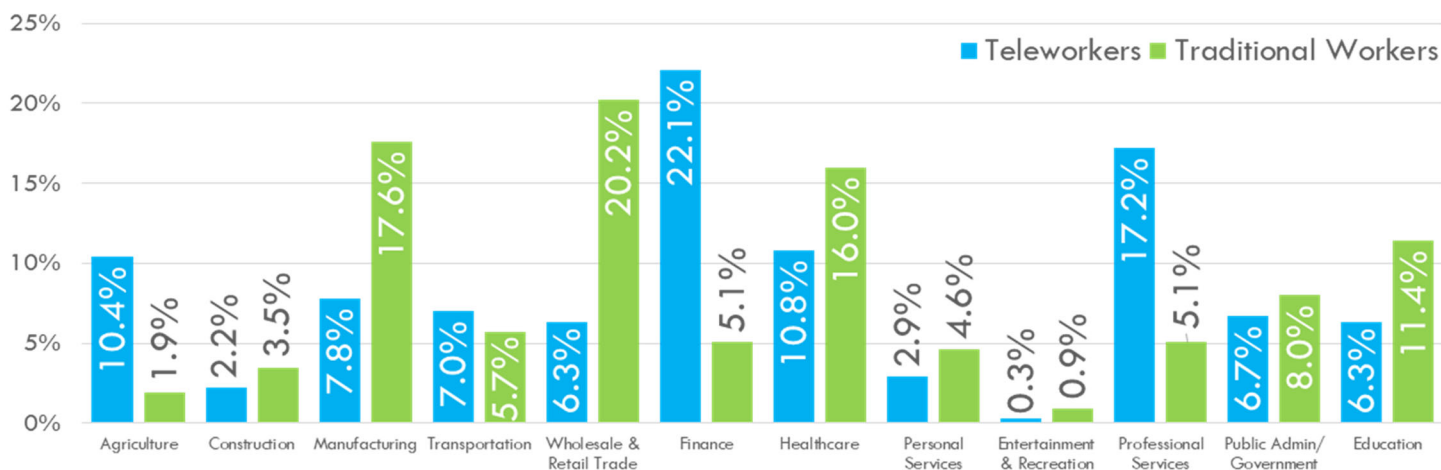
There was also a significant difference between the two groups when looking at wages. Teleworkers who were paid an hourly wage reported a median hourly wage of \$20.25. Traditional workers who were paid an hourly wage reported a median hourly wage of \$18.50. Among those who were paid an annual salary, teleworkers reported a median of \$72,000/year while traditional workers reported a median of \$65,000/year.

The type of employment among these two groups of respondents also varies. Within both groups the majority work full-time (88.8 percent of teleworkers and 88.0 percent of traditional workers). However, the average number of hours worked per week is slightly higher among teleworkers (45) versus traditional workers (43). Additionally, as may be expected, a much larger percentage of teleworkers are self-employed (34.5 percent) than traditional workers (8.6 percent). As illustrated in the charts below, most teleworkers can be found working in the finance (22.1 percent) and professional services (17.2 percent) industries while the majority of traditional workers are in the wholesale and retail trade (20.2 percent) and manufacturing (17.6 percent) industries. Likewise, the top three occupational categories among teleworkers are: professional/paraprofessional/technical (40.0 percent); clerical (17.3 percent); and managerial (17.2 percent). The top three occupational categories among traditional workers are: professional/paraprofessional/technical (31.2 percent); production/construction/material moving (22.4 percent); and managerial (15.5 percent). For both groups the professional/paraprofessional/technical occupational category was the top category. However, the top job titles within this category vary widely between the two. For teleworkers the top job titles within this occupational category include: management analysts, software developers, and accountants and auditors. For traditional workers in the same occupational category the top job titles reported include: teachers and instructors, registered nurses, and engineers.

Job search resources used by each group did not vary much. The top resources for each were: the internet, networking, local IowaWORKS Centers, private employment services, and newspapers. However, teleworkers were slightly more likely to use networking and private employment services in their job search than traditional workers; while traditional workers were slightly more likely to use local IowaWORKS Centers and newspapers in their job search when compared to teleworkers. The top websites used for both groups include: www.indeed.com, www.linkedin.com, and specific company/organization websites. The top newspapers used by both groups include: *The Des Moines Register* and *The Gazette – Cedar Rapids*. The percentage of individuals actively looking for different employment is approximately the same for each group at 25.0 percent.

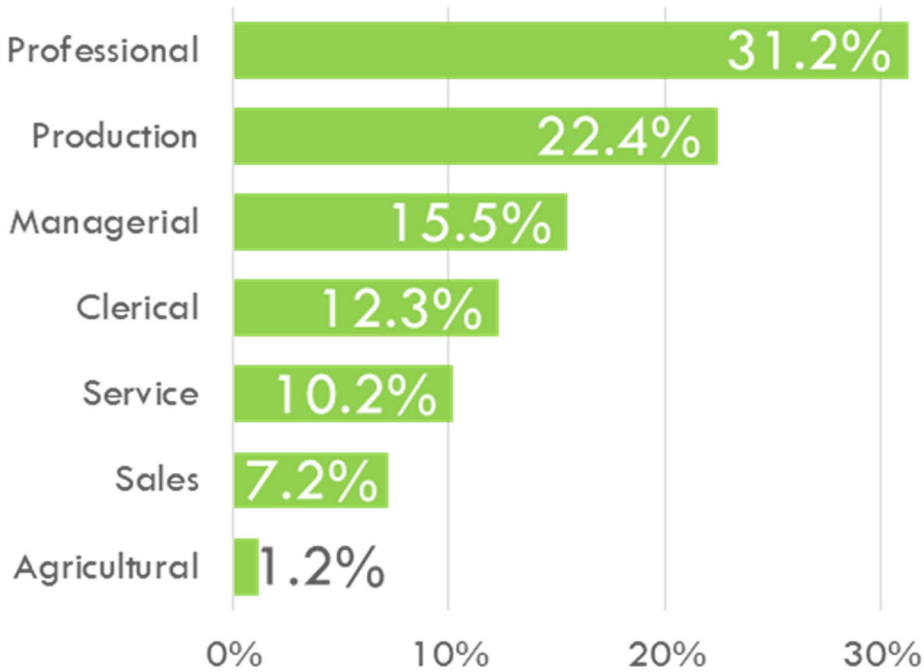
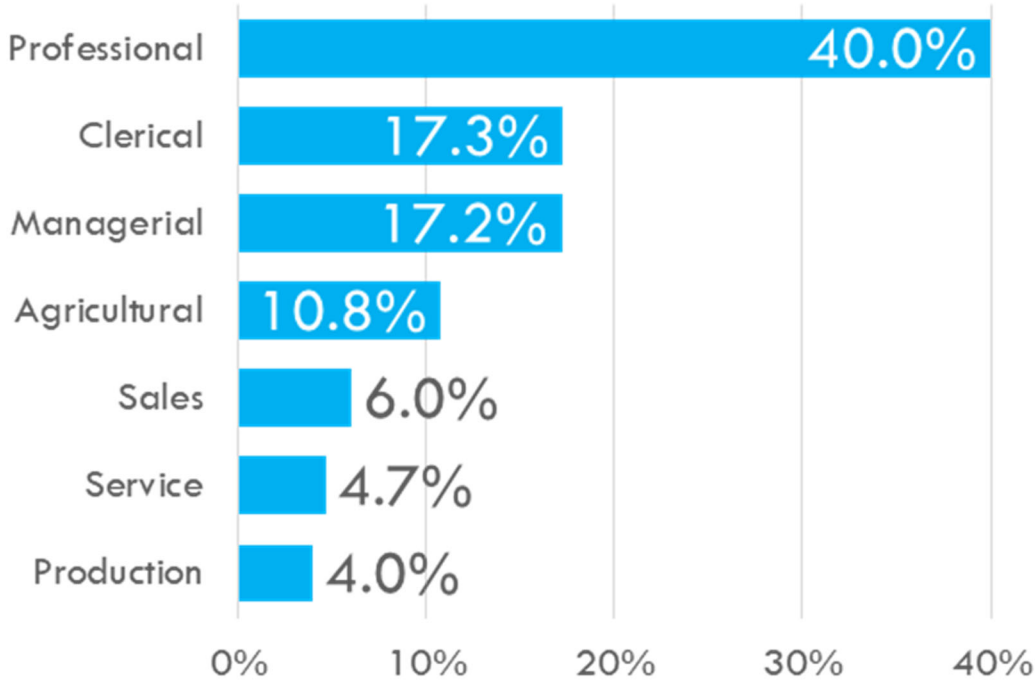
These work location questions are continuing to be asked during our 2022 survey collection and will remain for the foreseeable future. Down the road, we will be able to report on changes in the workplace environment and compare trends over the years.

Industry Chart:



Occupational Category Charts:

■ Teleworkers ■ Traditional Workers



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1. Laborshed, Labor Market Information Division, Iowa Workforce Development

Sector Spotlight: Health Care and Social Assistance

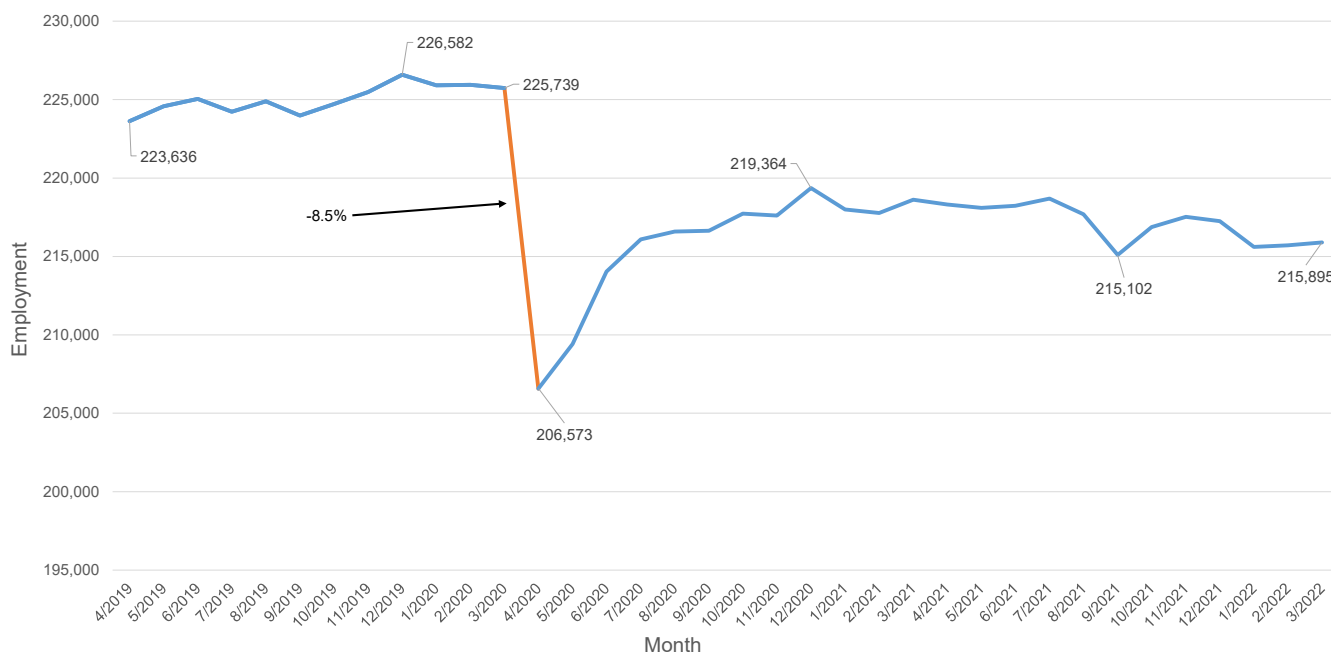
A Look at Iowa's Health Industry in a Post-Pandemic World

Written by Daniel Edwards

The **health care and social assistance** sector is perhaps the foundation of Iowa's economy, consistently providing job opportunities to those seeking employment in an aging society. Despite multiple recessions, the sector enjoyed two decades of nonstop employment growth leading up to 2020. From 2000 through 2019, average annual employment in the sector grew from 175,285 to 224,515, an increase of 28.1 percent¹. By comparison, Iowa's average annual covered employment expanded by 7.6 percent over the same period¹. This disparity is likely due to rising demand for health care services as the Baby Boomer generation matures into retirement.

However, the period of steady growth in the sector came to an abrupt halt in April 2020, as seen in Figure 1 below. Fear and panic stemming from the arrival of the Covid-19 pandemic crushed employment in virtually all corners of the economy, and Iowa's health care and social assistance sector was not exempt. Employment in the sector fell from 225,739 to 206,573 in a single month, a contraction of 8.5 percent¹. Sector employment rebounded quickly but has since stagnated to the present day. This article will examine the past and present of Iowa's health care and social assistance sector, as well as what implications may lie ahead for the sector due to lingering effects of the pandemic.

Figure 1. Employment in Health Care and Social Assistance, April 2019–March 2022

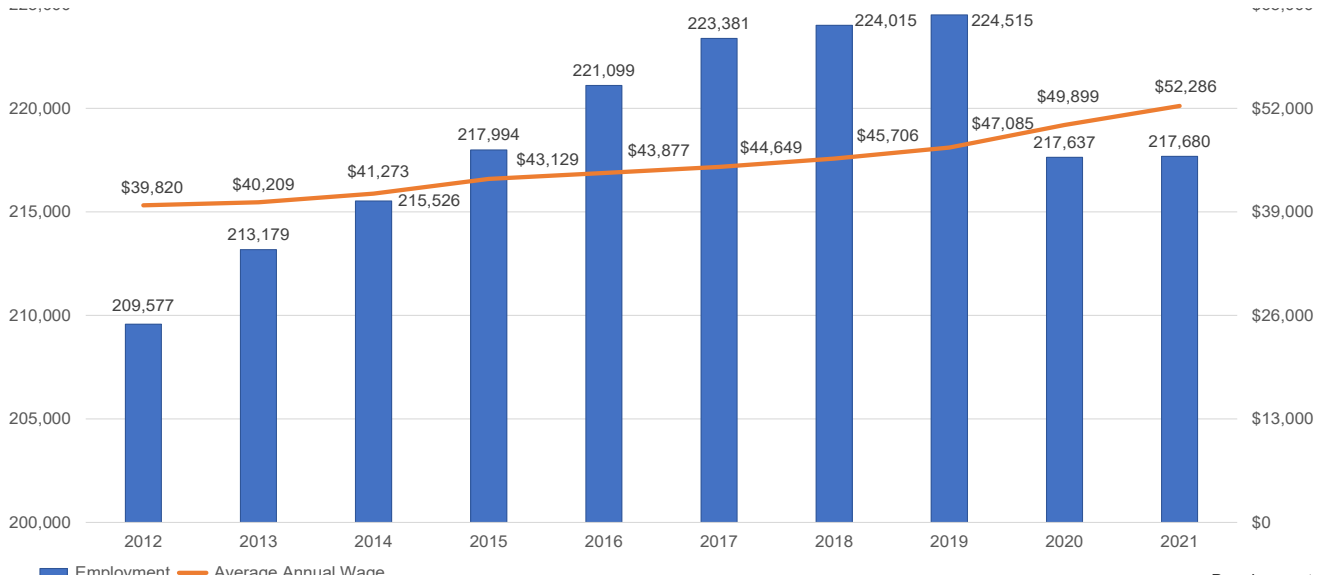


Source: Quarterly Census of Employment and Wages (QCEW), Labor Market Information Division, Iowa Workforce Development

On the following page, Figure 2 explores the sector's average annual employment over a longer timeframe, from 2012–21. As one can see, employment in the sector often grew by 1.0 percent or greater on an annual basis. This period of growth slowed from 2017–19, possibly due to a shortage of available workers. From April 2018 through May 2019, Iowa's unemployment rate sat at a historically low level of 2.5 percent or below², leaving many employers with unfilled positions. One can also see the decline in employment caused by the pandemic and the stagnation in employment that followed.

Figure 2 also illustrates the steady rise in the average annual wage among employees working in the health care and social assistance sector. This figure grew by 31.3 percent from 2012–21, which is lower than the increase for all covered employment in the same time (34.6 percent)¹. However, the sector's average wage has averaged an annual increase of 5.4 percent since 2019 (compared to 3.1 percent in the last decade)¹, perhaps reflecting greater competition among employers for qualified employees.

Figure 2. Average Annual Wage and Employment, Health Care and Social Assistance, 2012–21

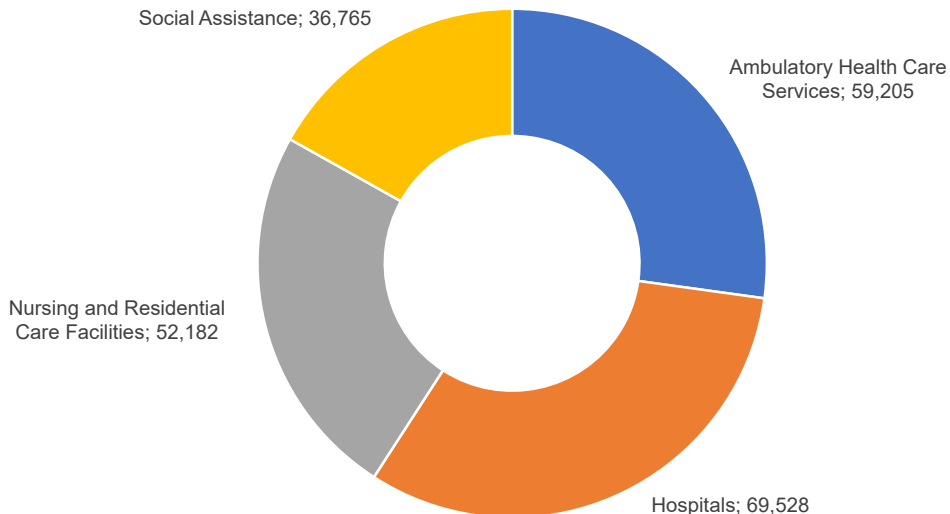


Source: Quarterly Census of Employment and Wages (QCEW), Labor Market Information Division, Iowa Workforce Development

The effects of the pandemic on healthcare workers have been noted in the media on numerous occasions. Many employees have chosen to leave their profession due to the stress and trauma inflicted by the pandemic. Others may have decided to exit traditional employment with a clinic or hospital to seek higher pay working for a travel nursing organization. These establishments are classified within the industry for **temporary help services**. Correspondingly, employment and wage data for these organizations do not contribute to the health care and social assistance sector. These factors may help to explain the stagnating employment and rising wages in Iowa’s health care industry.

The Bureau of Labor Statistics divides the health care and social assistance sector into four subsectors: **ambulatory health care services, hospitals, nursing and residential care facilities, and social assistance**. A breakdown of employment between these subsectors can be seen in Figure 3 below. Hospitals is the largest subsector by employment, with 69,528 employees¹. The smallest subsector by employment is social assistance, with 36,765 employees¹. Establishments in this subsector provide the widest range of services, such as youth self-help, companionship for the elderly, administering community food and housing programs, and vocational rehabilitation.

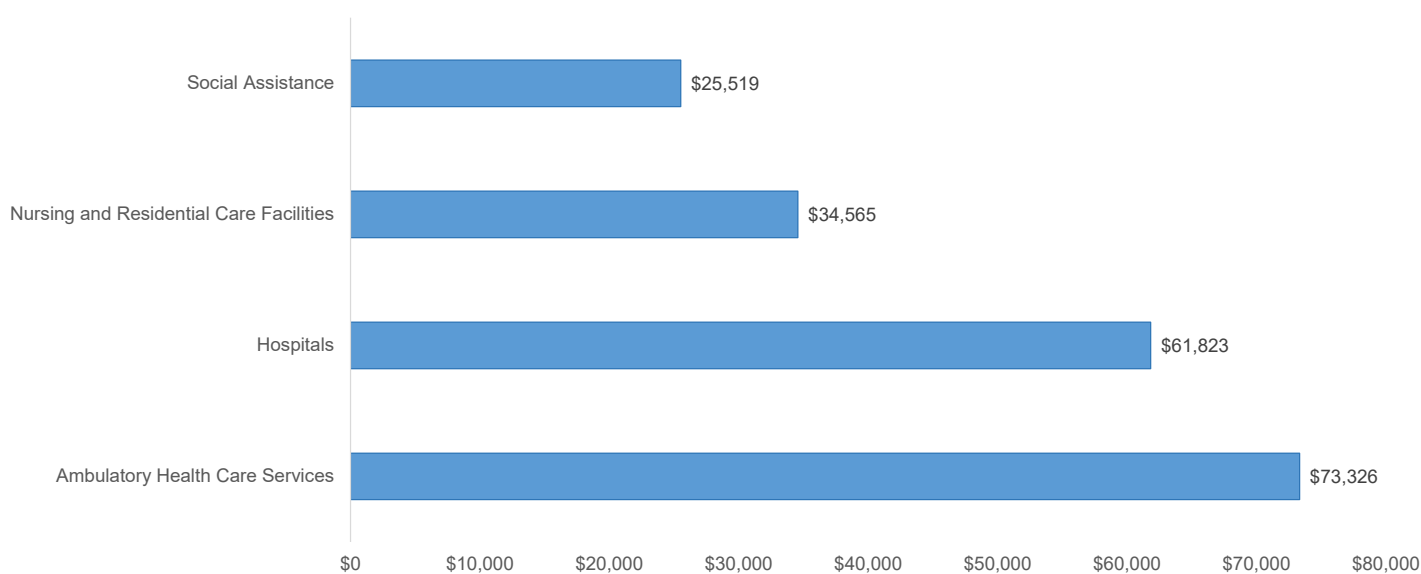
Figure 3. Employment in Health Care and Social Assistance by Subsector, 2021



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

In addition to being the smallest subsector by employment, social assistance has the lowest average annual wage, at \$25,519¹. This is likely due to the lower level of education and specialty required for most occupations in the subsector. By comparison, the ambulatory health care services and hospitals subsectors command significantly higher average annual wages, at \$73,326 and \$61,823, respectively¹. Doctors, surgeons, specialty physicians, and other health care professionals with high levels of education and specialties often work for organizations belonging to these subsectors.

Figure 4. Average Annual Wage in Health Care and Social Assistance by Subsector, 2021



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

As illustrated in Figure 5, the rate of average annual wage growth from 2012–21 was relatively consistent between subsectors. The nursing and residential care facilities subsector experienced the strongest rate of wage growth, with salaries rising by 41.2 percent in the past decade¹. However, employment in the subsector shrank by 9.5 percent over the same period¹, making it the only subsector within health care and social assistance to lose jobs. Employment growth was strongest in social assistance and ambulatory health care services, which expanded by 16.5 percent and 11.2 percent, respectively¹.

Figure 5. Growth Rate in Health Care and Social Assistance by Subsector, 2012-21

Subsector	Employment	Average annual wage
Ambulatory health care services	11.2%	27.3%
Hospitals	3.6%	28.2%
Nursing and residential care facilities	-9.5%	41.2%
Social assistance	16.5%	27.3%
Total, health care and social assistance sector	3.9%	31.3%

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

According to industry projections data produced by Iowa Workforce Development, all four subsectors in the health care and social assistance sector are expected to grow in employment in both the short- and long-term. Between the second quarter of 2021 and the second quarter of 2023, the social assistance subsector is expected to have the strongest growth rate, at 6.7 percent³. This would represent a continuation of the trend seen from 2012–21. In the long term, which runs from 2020 to 2030, the ambulatory health care services subsector is anticipated to have the largest rate of expansion, at 28.0 percent³. This data likely reflects a greater demand for highly educated and trained physicians as the Baby Boomer generation ages.

The short- and long-term projections for the subsectors within Iowa's health care and social assistance sector can be seen in their entirety in Figures 6 and 7.

Figure 6. Short-Term 2021Q2-2023Q2 Statewide Industry Projections

NAICS + Industry Description		Base Estimated Employment	Projected Estimated Employment	Employment Numeric Change	Employment Percent Change
624 Social Assistance		36,360	38,790	2,430	6.7%
621 Ambulatory Health Care Services		58,310	60,650	2,340	4.0%
622 Hospitals	II.	65,855	67,400	1,545	2.3%
623 Nursing and Residential Care Facilities		50,845	52,085	1,240	2.4%

Figure 7. Long-Term 2020-2030 Statewide Industry Projections

NAICS + Industry Description		Base Estimated Employment	Projected Estimated Employment	Employment Numeric Change	Employment Percent Change
621 Ambulatory Health Care Services		56,975	72,950	15,975	28.0%
623 Nursing and Residential Care Facilities		52,910	61,600	8,690	16.4%
624 Social Assistance	II.	35,700	42,810	7,110	19.9%
622 Hospitals		64,975	69,170	4,195	6.5%

Source: Industry Projections, Iowa's Long-Term and Short-Term Industry Projections (Forecasts), Labor Market Information Division, Iowa Workforce Development

It is important to note that the long-term projections use 2020 employment data as a base. Because employment in 2020 was severely depressed as a result of the pandemic, employment percentage growth for the long-term projections may be deceptively high. Further, the effects of economic factors such as inflation, rising interest rates, low unemployment, and a possible recession in the near-term make it difficult to accurately predict employment in the future. Uncertainly notwithstanding, higher demand for health care services is likely to invite additional growth in Iowa's health care sector.

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¹ Quarterly Census of Employment and Wages (QCEW), Labor Market Information Division, Iowa Workforce Development <https://www.iowaworkforcedevelopment.gov/quarterly-census-employment-and-wages>

² Local Area Unemployment Statistics (LAUS), Labor Market Information Division, Iowa Workforce Development <https://www.iowaworkforcedevelopment.gov/local-area-unemployment-statistics>

³ Industry Projections, Iowa's Long-Term and Short-Term Industry Projections (Forecasts), Labor Market Information Division, Iowa Workforce Development <https://www.iowaworkforcedevelopment.gov/industry-projections>

The Great Resignation: An analysis of the contributing factors to the historically high job quits in 2021

Written by Scott Thompson

Abstract

Throughout the COVID-19 pandemic Americans took notice of the sharp percentage of increase at which workers were voluntarily leaving their employment. This phenomenon, commonly referred to as the quits rate, is included in the data collected by the Bureau of Labor Statistics (BLS) and published in the Job Turnover and Labor Market Survey (JOLTS) website. Amid the public speculation attributed to why workers were quitting their jobs, workers were accused of being lazy or taking advantage of Economic Impact Payments. While some of that might exist, it is difficult to find evidence of it. In February 2022, Pew Research Center conducted a survey to learn more about the motivations behind these increases. Responses included but were not limited to low wages, minimal opportunities for advancement, feelings of disrespect in the workplace, and the lack of healthcare benefits. This brief is part of a larger project hoping to advance the discussion of the economic and social factors that contributed to historically high quits rates in 2021 through a multiple regression analysis of our fifty states and the District of Columbia. Preliminary results of the research show a worker's earnings, a person's happiness with their community and their lives, and educational attainment are strong and significant predictors for why workers quit their jobs and seek new opportunities.

The Issue

The COVID-19 pandemic presented unprecedented challenges to virtually all aspects of the American economy. Perhaps at the forefront of these challenges was historically high rate at which American workers voluntarily quit their jobs. The issue was the basis of much speculation and public discourse in 2021 when an average of 2.7 percent of the workforce quit their jobs each month. The quits rate peaked in August 2021 when it reached 3.8 percent. Many parts of the country, which were already facing a labor shortage, experienced a crisis as the economy began to reopen and rebuild. The question this work seeks to address is: What were the contributing factors to the historically high rates of workers quitting their jobs in 2021?

The Bureau of Labor Statistics began tracking the "quits level" (the number of workers who quit their jobs each month) and the "quits rate" (the percentage of workers in the non-institutional civilian work force who quit their jobs) in December 2000. It is not unusual for 2.0 percent of the employed workforce to quit their jobs in any given month. In the full twenty-one calendar years since the Bureau of Labor Statistics began tracking the Quits Rate (beginning in December 2000) eleven of the twenty-one years have experienced average monthly quits rates more than 2.0 percent.

Virtually every industrial sector in our economy was impacted by the increase in quits during 2021 (Gittleman, 2022). Preexisting labor shortages were exacerbated. As the economy began to reopen, many businesses were forced to reduce their hours of operation or occasionally close due to a lack of available labor. Employers also began to increase incentives to attract applicants, including increasing hourly wages, salaries, and benefits.

The collection of work addressing this question is thin but growing. Much of the work is focused on survey interviews seeking to uncover the contributing factors resulting in the high quits rate. An informative resource has been published by the Pew Research Center. Through a survey of their American Trends Panel, respondents indicated low pay, no opportunities for advancement, workplace disrespect, and childcare were the top four motivating factors influencing the decisions among workers who parted ways with their employers in 2021 (Parker and Horowitz, 2022).

¹<https://www.bls.gov/jlt/>

²<https://www.pewresearch.org/fact-tank/2022/03/09/majority-of-workers-who-quit-a-job-in-2021-cite-low-pay-no-opportunities-for-advancement-feeling-disrespected/>

³<https://data.bls.gov/PDQWeb/jt> (based on non-seasonally adjusted data)

⁴<https://data.bls.gov/PDQWeb/jt> (based on non-seasonally adjusted data)

⁵<https://www.bls.gov/bls/newsrels.htm>

⁶<https://www.bls.gov/bls/newsrels.htm>

⁷BLS data collection, estimation, and analysis began in December 2000. <https://www.bls.gov/opub/hom/jlt/history.htm>

Purpose of this Brief

This work is a regional brief including Iowa and its six border states as part of a fifty-state quantitative analysis. The intent of which is to expand upon the foundation established by Pew Research Center. A data based correlative model using multiple regression analysis is being used in the study. The state's 2021 average monthly quits rate acts as the dependent variable. Assuming there are usually multiple factors for which motivate an employee to quit a job, economic, social, and demographic independent variables have been selected. The final draft of the report is set for completion by October 1, 2022.

Hypothesis: The 2021 quits rates were driven by a combination of economic, social and economic factors, including a worker's earnings and level of overall happiness.

Methods

Multiple Regression and the Data Used for Analysis

The hypothesis was tested using a data set containing one dependent variable, seven independent variables, and one control variable. The data are continuous and are generally strongly correlated. Multiple regression analysis was selected to assess the strength of the relationships between the quits rate and the independent variables. Multiple regression is a statistical tool building on the strength of correlations to establish associations between variables. Through multiple regression the importance of each variable can be determined, while at the same time other variables can be statistically eliminated.

Data

The quits rate is the percentage of the non-institutional civilian work force who quit their jobs each month. The rate is determined by dividing the number of workers who voluntarily quit their jobs, by the number of people who are employed in the non-institutional civilian workforce. Quits rate data are collected monthly by the Bureau of Labor Statistics through voluntary participation of employers. The annual quits rate used in this study is mean of the aggregation of the annual data for each state.

Seven independent variables were chosen based on their theoretical fitness and significance in existing literature on the issue of quits rates. One variable, 2021 WalletHub State Happiness Score, was selected to be used as a control variable.

Data for variables obtained from the 5-year estimates of the 2020 American Community Survey include:

- Commute time is the mean travel time for workers sixteen years and over who did not work from home.
- Percent of individuals with no health insurance.
- Educational attainment (High School Diploma, College Degree).
- Median annual earnings workers 16 years and older (Females, Males).

Data for remaining independent variables include:

- 2021 Advanced Child Tax Credit (Proxy for childcare costs).

The control variable is the 2021 WalletHub State Happiness Score. This score is comprised of three dimensions: Emotional and physical well-being, work environment, and community environment (McCann, 2021). There is a theoretical justification for use of this variable. Thant and Chang (2021) argue that Herzberg's two-factor theory, whereby workers often make career decisions based on "internal organizational factors and external environmental factors" (p.159) played a key role in the decision-making processes of government workers in Myanmar when choosing to either remain in their jobs or quit and move on to another position.

A significant issue related to the selection of variables was the use of race as a demographic variable. The original demographic variables for race (black, white, and Hispanic/Latino) were weakly correlated and not statistically significant

with the quits rate. Therefore, they were not included in the regression analysis.

Results and Discussion

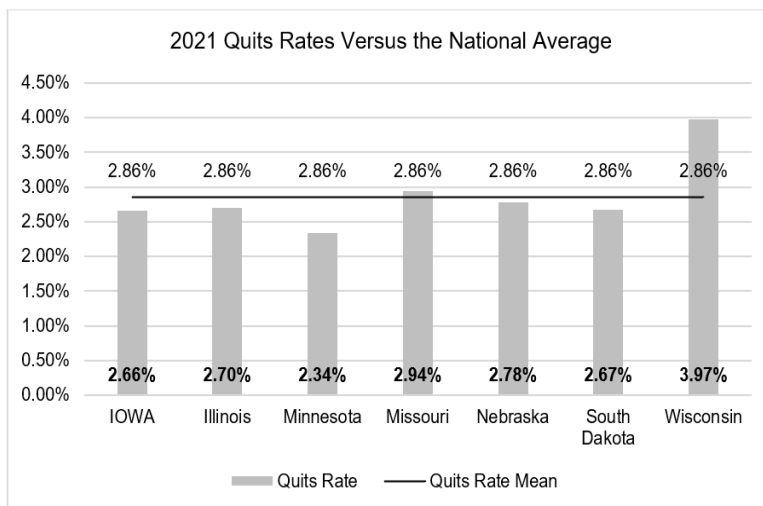
Quits Rates

As quits rates accelerated, the need for hiring increased. On a national basis, hiring peaked at an all-time high in May 2020 at 6.5% of employment and remained above 4.0% through October. In 2021 Hire rates broke the 4.0% level in April and remained above the mark through November. However, the rates never approached the 2020 marks.

Figure 1 Comparison between the observed state quits rates versus the national average in 2021.

As seen in Figure 1, Minnesota (2.34), South Dakota (2.67), Illinois (2.70), and Nebraska (2.78) each experienced monthly quit rates below the national average of 2.86%. Iowa's 2.66% quits rate was the 18th lowest rate in 2021.

Figure 1. Comparison between the observed state quit rates versus the 2021 national average



Comparing Iowa to Surrounding States in the Observation Group

Table 1 represents the observed values of each of the variables used in the multiple regression analysis. At first glance, Iowa appears to be a middle of the pack performer, with some strengths in commute time, the percent of persons with high school diplomas, and the percent of people with no health insurance.

Table 1

Observations by State

State	Quits Rate	Average Commute Time	Percent With No Health Insurance	Percent With High School Degree	Percent With College Degree	Advance Child Tax Credit	Median Female Earnings	Median Male Earnings	State Happiness Ranking
Iowa	2.66	19.5	5.90	92.50	29.30	471	41,420	52,902	59.21
Illinois	2.70	29.0	8.50	89.70	35.50	438	47,170	59,651	53.12
Minnesota	2.34	23.8	5.40	93.40	36.80	463	49,047	59,993	67.52
Missouri	2.94	23.9	11.20	90.60	29.90	460	40,276	51,118	51.46
Nebraska	2.78	18.9	9.50	91.60	32.50	479	40,947	52,311	59.54
South Dakota	2.67	17.3	10.90	92.20	29.30	494	38,663	49,603	63.08
Wisconsin	2.60	22.2	6.70	92.60	30.80	457	42,865	53,830	58.66

Commute times, health insurance, educational attainment data sourced from 2020 ACS 5-year estimates. Earnings data sourced from Current Population Survey, Bureau of Labor Statistics (2022).

⁸ <https://www.bls.gov/jlt/home.htm>

A Quits Rate Socioeconomic Index was created to represent how each state ranks within the region. The index is helpful in creating a competitive regional picture, however it cannot provide sufficient evidence to predict or even suggest which states would experience higher quit rates. That task has been performed in the multiple regression analysis.

The index was created by determining a quotient for each state's observed value of the independent variable versus the mean of the independent variable. The quotient may be a positive or negative number. The difference between the mean and the quotient is referred to as the variance (var). The variances for each state are aggregated, comprising the index (var Σ).

Table 2

2021 Regional Quits Rate Socioeconomic Index

	Average Commute Time	Percent with no Health Insurance	Percent with High School Diploma	Percent with College Degree	Advance Child Tax Credit	Median Female Earnings	Median Male Earnings	Index
	var	var	var	var	var	var	var	var Σ
Minnesota	-0.078	0.349	0.017	0.149	0.006	0.143	0.107	0.695
Iowa	0.117	0.289	0.008	-0.085	-0.011	-0.035	-0.024	0.260
Wisconsin	-0.005	0.193	0.009	-0.038	0.019	-0.001	-0.007	0.170
Illinois	-0.313	-0.024	-0.023	0.109	0.060	0.099	0.101	0.009
Nebraska	0.144	-0.145	-0.002	0.015	-0.028	-0.046	-0.035	-0.096
South Dakota	0.217	-0.313	0.004	-0.085	-0.060	-0.099	-0.085	-0.421
Missouri	-0.082	-0.349	0.009	-0.066	0.013	-0.061	-0.057	-0.594

Commute times, health insurance, educational attainment data sourced from 2020 ACS 5-year estimates. Earnings data sourced from Current Population Survey, Bureau of Labor Statistics (2022).

Minnesota's .695 index ranks first in the region. The state's strength lies in its low percentage of population who lack health insurance (5.4%), high percentage of population with at least a bachelor's degree (36.8), and median earnings for both women (\$49,047) and men (\$59,993). However, the state's average commute time of 23.8 minutes ranks 5th in the region and 18th in the nation.

Iowa's .260 index is powered by low commute times (19.5 minutes), a low percentage of population without health insurance (5.9%), and its impressive percentage of high school graduates (92.5%). Median earnings for women (\$41,420) and men (\$52,902) are both below the regional mean and both rank in the bottom 50% nationally. Iowans also collected a 2021 Advance Child Tax Credit amount exceeding the mean, which impacted the index.

Wisconsin ranks third in the region. The state performs well because of its low percentage of population without health insurance (6.7%), a 2021 Advance Child Tax Credit (\$457) that was \$9 below the mean, and a high school graduation rate of 92.6%. However, median earnings for women (\$42,865) and men (\$53,830) are below the regional mean with national rankings of 21st and 24th, respectively.

Illinois' fourth place ranking is primarily based on the percentage of population with a bachelor's degree (35.5%) and the median wages of both women (\$47,170) and men (\$59,651). As illustrated in the correlation coefficients table in the following section, there are strong positive correlations between holding bachelor's degrees and median earnings. The state ranks 45th nationally and last in the region for commuting. Illinois also ranks last in the region (89.7%) and 31st nationally in the percentage of the population with a high school diploma.

Nebraska's workers benefit from low commute times (18.9 minutes) and 32.5% of Nebraskans have bachelor's degrees, 0.49% above the mean for the region and matches both the mean and median for the nation. However, Nebraskans also collected higher than average 2021 Advance Child Tax Credits (\$479) and earned lower than average median annual earnings (women \$40,947 and men \$52,311) each of which negatively impacted their index.

South Dakota's strengths are concentrated in its low average commute time (17.3 minutes) and its higher-than-average percentage of persons with high school diplomas (92.2%). However, the low median earnings for both women (\$38,663) and men (\$49,603) place the state at the bottom of the regional list. The state's high average Advance Child Tax Credit amount of \$494 is also a negative factor in the state's -0.421 index.

Missouri ranks seventh in the region. The state's low average Advance Child Tax Credit is offset by the high percentage (11.2%) of the population without health insurance, low median earnings (women \$40,276 and men \$51,118), each of which are highly correlated.

Descriptive Statistics and Pearson Correlation Coefficients

The correlation table, seen below in Table 3, represents the relationships between the nine variables used in the research study. Each variable includes the descriptive statistics (mean and standard deviation) and the correlations between each variable. Correlations with two asterisks are statistically significant at the 0.01 level. Correlations with one asterisk are statistically significant at the 0.05 level. Correlations without asterisks are not statistically significant, however may represent theoretical arguments discussed in the study.

Correlations are expressed numerically as a coefficient from -1 to +1, as seen in the above table. The strength of correlations is somewhat subjective. In the social sciences, Cohen's (1988) table of coefficient strength is a useful reference.

0.001 to 0.299	Low Correlation
0.300 to 0.499	Moderate Correlation
0.500 >	Strong Correlation

Correlations only measure the positive or negative strength of a possible relationship between variables and does not imply any degree of causation. It is the responsibility of the researcher to make the argument of causation between the independent and dependent variables.

The correlations between quits rates and the independent variables in this table range from quite moderate to strong. While this brief only discusses the correlations between quits rates and the independent variables, the relationships between independent variables are important as well. There are extremely strong correlations between the percentage of population twenty-five years and older with college degrees and the median annual earnings for both women $r(49) = .91, p < .01$ and men $r(49) = .85, p < .01$.

Commuting is thought to be a universally dreaded workday ritual. The average time we spend traveling to and from work has been increasing annually and often we consider it to be lost time. In this study, correlating commute times with the remaining variables proved challenging. Originally, commuting time had a negative relationship with the quits rate. This implied that as commuting times increased, quits rates decreased. That is a highly unusual finding and not something which can easily be defended. To align the commuting time variable and the findings in existing literature, the commute times were ranked from the shortest to longest time, from 1 to 51. After each commute time was ranked, the rankings were reverse coded, thus ranking the longest commute time 1 and the shortest commute time 51. The correlation between commute times and quits rates is moderate, $r(49) = .52, p < .01$ and suggests as commute times increase quits rates may also increase.

The historic increase in the 2021 quits rate is most often associated with the labor shortages in the retail, hospitality, and food service industries. Occupations in these establishments often require lower work skills, pay workers less in wages, and sometimes include unpredictable or irregular work schedules. As is often the case, these occupations are often filled by workers who possess up to a high school diploma. The relationship between this sector of the workforce and the quits rate is moderate $r(49) = .41, p < .01$. Often, these same workers go without health insurance $r(49) = .64, p < .01$. As the percent of both populations increase, the quits rate should increase.

There is a strong negative relationship between people who hold college degrees and quit rates $r(49) = .68, p < .01$. This suggests that in states where there are higher percentages of college degree holders, the quits rates will be lower.

Table 3

Descriptive Statistics and Pearson Correlation Coefficients

A similar relationship exists with respect with the median earnings of women $r(49) = .71, p < .01$ and men $r(49) = .66, p < .01$. These relationships suggest that as earnings increase, the quits rate may decrease as a result.

The control variable in the analysis is the 2021 WalletHub State Happiness Score. There is a growing body of academic literature and anecdotal data suggesting that a worker's overall happiness impacts their approach to the workplace. In this study happiness has a strong correlation with quits rates $r(49) = .56, p < .01$ and moderate correlations with median earnings of women $r(49) = .44, p < .01$, and men $r(49) = .42, p < .01$.

	M	SD	1	2	3	4	5	6	7	8
1 Quits Rate	2.88614	0.496								
2 Commute Time	24.839	3.903	-.519**							
3 No Health Insurance	9.9843	3.657	.642**	-.217						
4 High School Diploma	27.7314	4.141	.406**	-.297*	.120**					
5 Bachelor's Degree	32.5451	6.492	-.676**	.486**	-.508**	-.740**				
6 Advance Child Tax Credit	449.49	24.936	.457**	-.760**	.338*	.115	-.455**			
7 Median Female Earnings	44240.3	7199.881	-.705**	.583**	-.548**	-.627**	.906**	-.539**		
8 Median Male Earnings	55490.3	7597.175	-.658**	.494**	-.539**	-.570**	.853**	-.429**	.951**	
9 State Happiness	53.2445	8.343	-.557**	.108	-.442**	-.585**	.555**	.086	.442**	.420**

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

In Summary

This analysis is focused on the socioeconomic conditions faced by workers prior to and during the COVID-19 pandemic. While there are certainly limitations to this work, it is difficult to escape a very clear conclusion. At the peak of the pandemic, a historic percentage of the American workforce made and are continuing to make occupational choices based on internal economic factors as well as internal and external social conditions.

Initial interpretations of the data strongly suggest workers are seeking higher earnings and improved workplace benefits, such as employer sponsored health insurance. These are compensation items workers have been seeking for time immemorial. However, the difference today is American consumers have become severely impacted by the rate at which workers are quitting their jobs. Our favorite restaurants aren't open at the hours we've grown accustomed and convenience stores have suddenly become inconveniently closed due to a shortage of workers.

Although retirements are not reflected in the quits rate, the increase in the percentage of workers leaving the workforce due to retirement during the pandemic has also impacted the labor shortage. Nationally, retirements increased 7.0% during the pandemic (Rodgers and Ricketts, 2022). Many who were considering retirement, but delaying the decision, made the choice to leave the workforce.

As we move forward into what is hopefully a post-pandemic recovery, there are measures to consider which may help to stabilize the workforce and reduce the quits rates to a manageable level.

States may consider evaluating their Registered Apprenticeship Programs to determine if they are meeting the current and future needs of their employers. Iowa has been in front of the curve in their approach to expanding and improving their Earn and Learn Registered Apprenticeship Program.

For many working Americans health insurance is unaffordable. And, for many small employers, the ability to provide health insurance to employees is impossible. Individual states and the Federal government may choose to consider a public option or an Improved Medicare for All health insurance approach. These programs certainly do come with considerable costs. However, in public programs those costs may be shared throughout the system, reducing costly spikes in premiums, and eliminating health care deficiencies for Americans.

Statistically and anecdotally, there is no mystery to why the quits rate reached historic highs in 2021. It was the level of which the rate increased which grabbed our attention. However, it did provide an opportunity for all of us to give pause for serious consideration of how we might improve the working lives of Americans and support employers, simultaneously. Considering full-time workers spend upwards of 30% of each year working and earning a living, these are investments we can ill afford to ignore.

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