



# Cedar Rapids Target Industry Analysis

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JANUARY 2023



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# INTRODUCTION

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Cedar Rapids is a community in every sense of the word. Its residents, business leaders, and elected officials all convey that pride in community. Cedar Rapids is resilient. Its people have faced a series of series of environmental catastrophes including the devastating flood in 2008 and the derecho in 2020. Despite these challenges, the community continues to grow. Each member of the community is committed to Cedar Rapids growing its economy and building upon its foundational community strength.

AngelouEconomics (AE) is proud to partner with Cedar Rapids to update its target industry strategies and workforce development, retention, and attraction studies. Having previously worked with the community in 2014, AE is honored to be trusted with such responsibility again. These efforts will help Cedar Rapids' leadership coordinate economic development and workforce growth. At the same time, these efforts serve as an opportunity to showcase the tremendous quality of community and quality of life that Cedar Rapids maintains.

A series of roundtable focus groups were held in July 2022 to gain an on-the-ground perspective of how Cedar Rapids has evolved over the last few years. Its recovery process from the 2008 flood and 2020 derecho are still ongoing, with significant progress being made on both fronts. Cedar Rapids of 2022 is vibrant, innovative, and full of people committed to its success.



# INTRODUCTION

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Cedar Rapids, like many other cities in Iowa, the Midwest, and the United States, is facing once-in-a-century challenges due to the COVID-19 pandemic. The leadership of Cedar Rapids utilized American Rescue Plan Act (ARPA) funds to support this project as part of its efforts to rebuild and strengthen the Cedar Rapids economy. Before COVID-19 pandemic related safety measures were put into action, Iowa's unemployment rate was at 2.6% (March 2020). Iowa's unemployment rate jumped to 10.5% in April 2020. For the next 24 months, Iowa's unemployment rate was at or above 3.0%. Beyond this initial shock, the longer term contraction of workers is roughly 5,700. There are currently 6,000 unfilled positions. Given the relative size of Iowa's workforce and concentration in urban areas, Cedar Rapids felt this sting acutely.

The shock and disruption inflicted upon the Cedar Rapids economy still reverberates today. Many businesses that have reopened have changed fundamentally and many residents who formerly participated in the Cedar Rapids workforce have made the decision to not participate moving forward. This study is a response to the businesses and workforce of Cedar Rapids negatively impacted by the COVID-19 pandemic.

## ARPA Funds

- *The funding provided under ARPA provides a unique opportunity for state and local governments to make strategic investments in long-lived assets, rebuild reserves to enhance financial stability, and cover temporary operating shortfalls until economic conditions and operations normalize.*





# CEDAR RAPIDS VISION ALIGNMENT

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## Cedar Rapids Strategic Focus

Vision:

To ensure future economic prosperity and continue to build upon exemplary quality of life for Cedar Rapids' residents and businesses

Objectives:

- Increase Communication
- Increase Workforce Participation
- Digital Marketing Strategies

Each of these objectives are expanded upon in the workforce development strategy and represent the culmination of research efforts to guide the City of Cedar Rapids as it responds to its immediate, short-term, and long-term economic development challenges.

# REGIONAL ASSETS



High Level of  
ED Support



Evolving  
Cultural Destinations



Strong Entrepreneurial  
Center



Highly Engaged  
Business  
Community



Growing Medical Core:  
MedQuarter



Industry  
Diversification



Exceptionally Strong  
Quality of Life



World-Class Higher  
Education Institutes



Developable Sites



Competitive  
Wage  
Earnings



University Partnerships  
& Opportunities



New City  
Infrastructure

# WHAT WE HAVE LEARNED

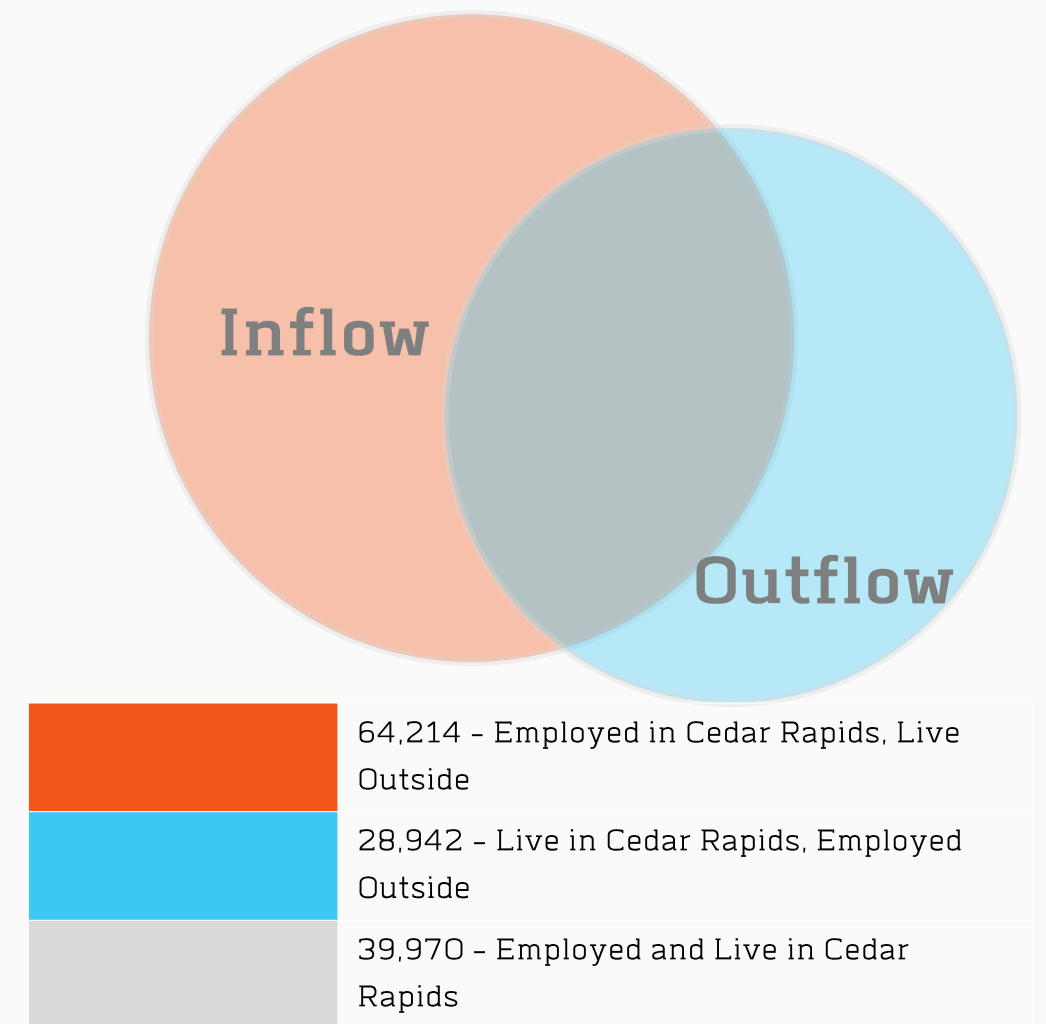
## WORKFORCE MOBILITY: ROUGHLY TWO OUT OF THREE CEDAR RAPIDS RESIDENTS IS EMPLOYED IN CEDAR RAPIDS

While most residents (58%) stay in Cedar Rapids for work, 42% leave the city, the majority of whom commute to nearby towns including, Marion, Hiawatha, and Iowa City. Cedar Rapids draws significantly more workers from outside the city (over 35,000) than the number of workers leaving the city.

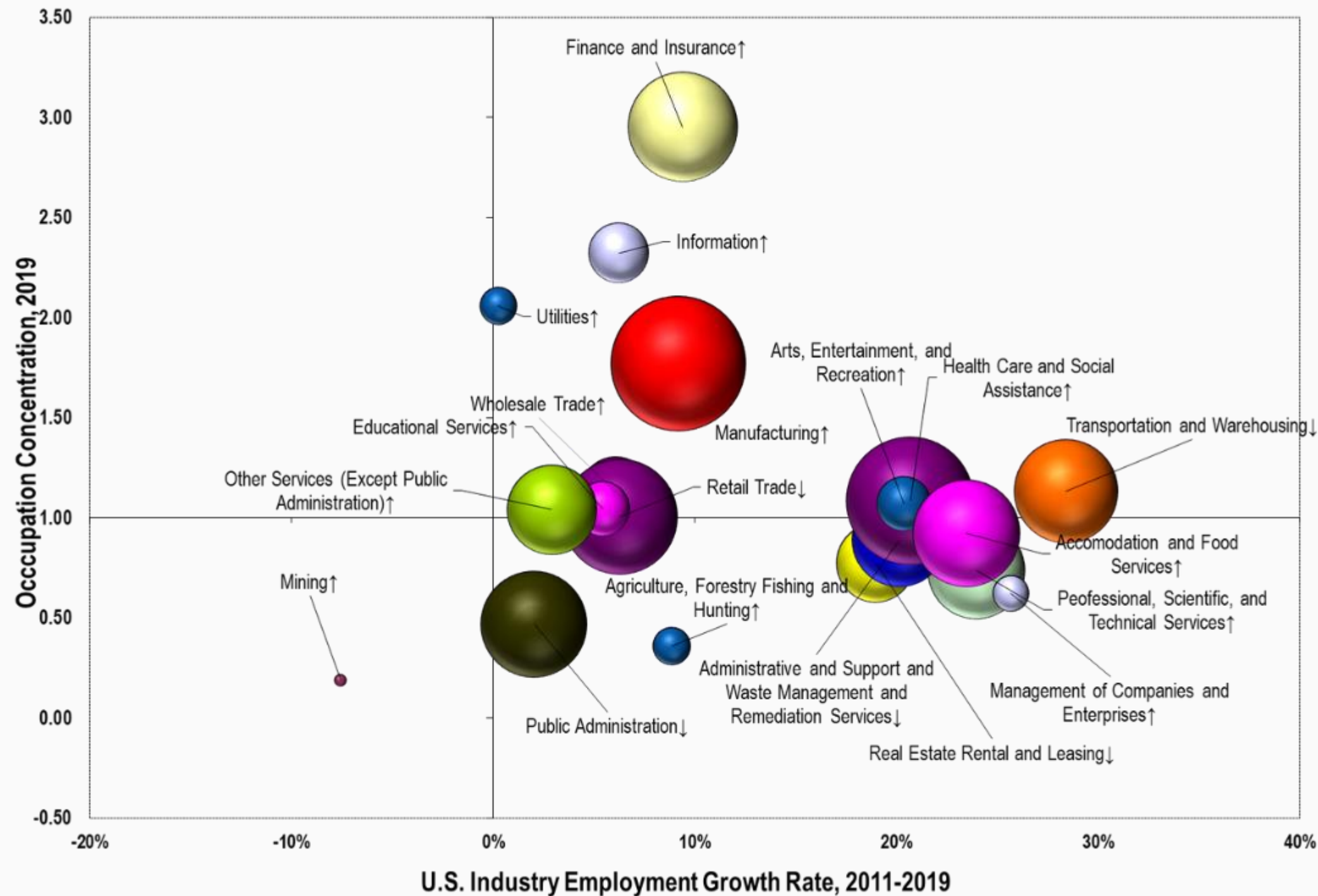
Cedar Rapids' labor force clearly can move fluidly between opportunities in the city and neighboring communities. Moving across the city's boundaries is no impediment to workers who are looking for employment in the city, nor is it a problem for residents looking for lower taxes or better schools.

Where Cedar Rapids Residents Work		
Location	Count	Percent
Cedar Rapids, IA	39,970	58.0%
Marion, IA	3,409	4.9%
Hiawatha, IA	3,354	4.9%
Iowa City, IA	3,130	4.5%
Coralville, IA	1,640	2.4%
Des Moines, IA	1,172	1.7%
Davenport, IA	882	1.3%
Waterloo, IA	755	1.1%
North Liberty, IA	725	1.1%
West Des Moines, IA	697	1.0%
All Other Locations	13,178	19.1%

Where Cedar Rapids Workers Live		
Location	Count	Percent
Cedar Rapids, IA	39,970	38.4%
Marion, IA	10,629	10.2%
Iowa City, IA	2,260	2.2%
Hiawatha, IA	2,061	2.0%
North Liberty, IA	1,462	1.4%
Dubuque, IA	1,213	1.2%
Robins, IA	1,163	1.1%
Coralville, IA	1,130	1.1%
Des Moines, IA	1,007	1.0%
Waterloo, IA	890	0.9%
All Other Locations	42,399	40.7%



# LINN COUNTY LOCATION QUOTIENTS



## Location Quotients (LQs):

Location quotients are a mathematical means of measuring the available workforce in a given region compared to a larger region. LQ values greater than 1 indicates a strength for the local economy compared to the comparison region. Conversely, those LQs below 1.0 indicate sectors of the economy with workforces below the national average. An LQ value of 1.2 raises that threshold. So, any LQ above 1.2 is seen as an area of strength in the local economy.



# SELECTION PROCESS

Cluster  
Concentration

Industry  
Trends

Local  
Assets

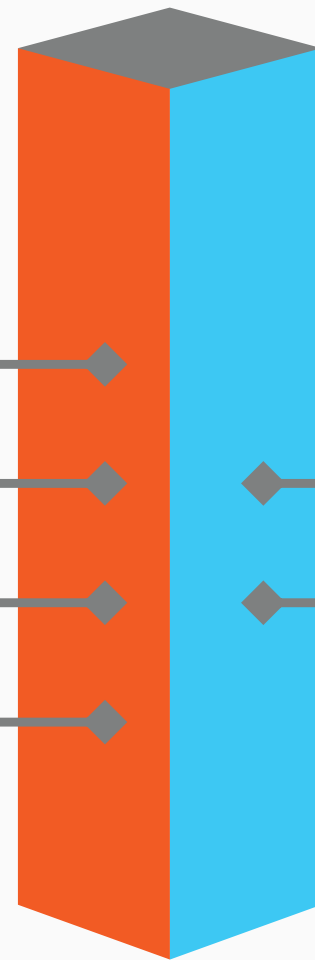
Vision  
Alignment



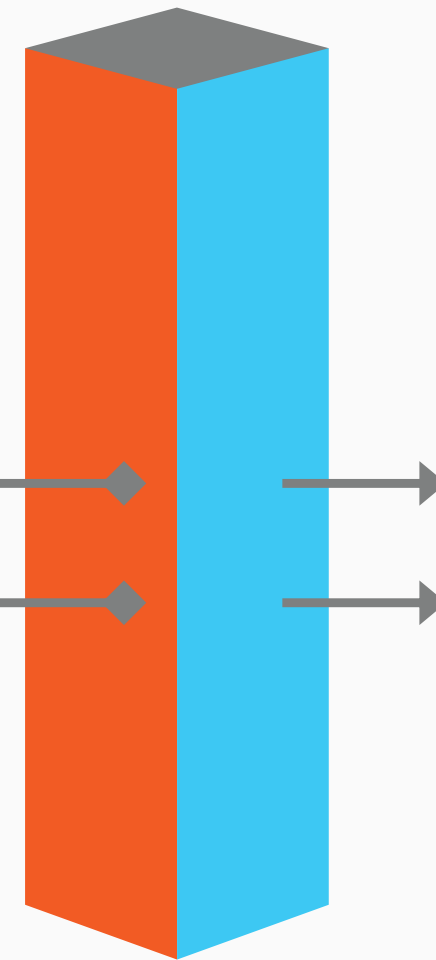
Which industries  
are strong and  
concentrated?



Do local clusters  
reflect national  
growth trends?



Are there local  
assets that give  
industries and  
niche sectors a  
competitive edge?



Do these clusters  
meet the goals for  
the county or  
city?





# ▶ CEDAR RAPIDS TARGET INDUSTRIES

1

Life Sciences

2

Logistics &  
Distribution

3

Food Sciences &  
Processing

4

Office Users  
(Entrepreneurialism,  
Finance, Insurance,  
Real Estate)

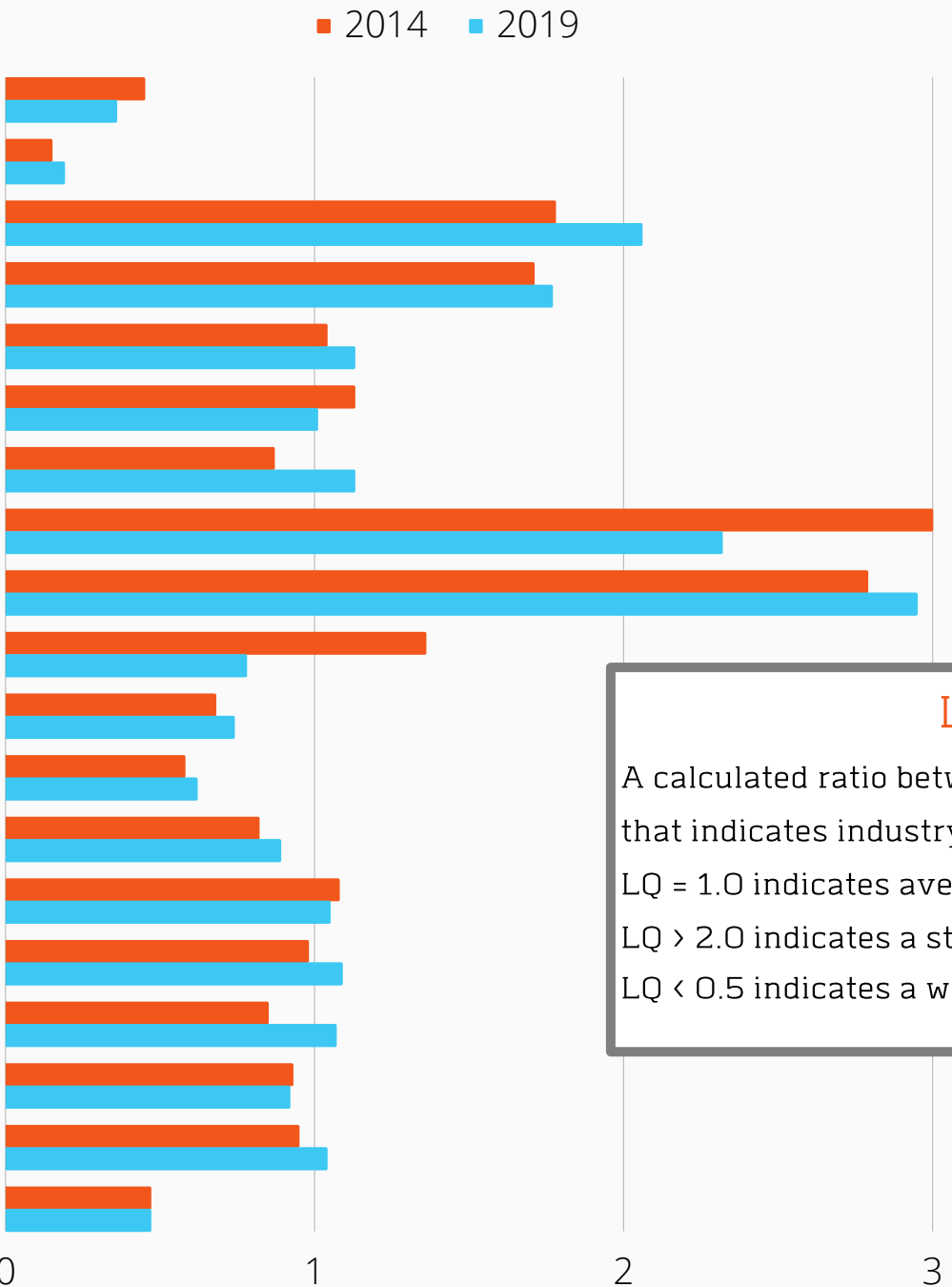
5

Manufacturing  
(Aerospace, Renewables,  
Hydrogen)



# 2014 CLUSTER CONCENTRATION

Industry Cluster Concentration		
Sector	Linn County (2014)	Linn County (2019)
Agriculture, Forestry Fishing and Hunting	0.45	0.36
Mining	0.15	0.19
Utilities	1.78	2.06
Manufacturing	1.71	1.77
Wholesale Trade	1.04	1.13
Retail Trade	1.13	1.01
Transportation and Warehousing	0.87	1.13
Information	3.00	2.32
Finance and Insurance	2.79	2.95
Real Estate Rental and Leasing	1.36	0.78
Professional, Scientific, and Technical Services	0.68	0.74
Management of Companies and Enterprises	0.58	0.62
Administrative and Support and Waste Management and Remediation Services	0.82	0.89
Educational Services	1.08	1.05
Health Care and Social Assistance	0.98	1.09
Arts, Entertainment, and Recreation	0.85	1.07
Accommodation and Food Services	0.93	0.92
Other Services (Except Public Administration)	0.95	1.04
Public Administration	0.47	0.47



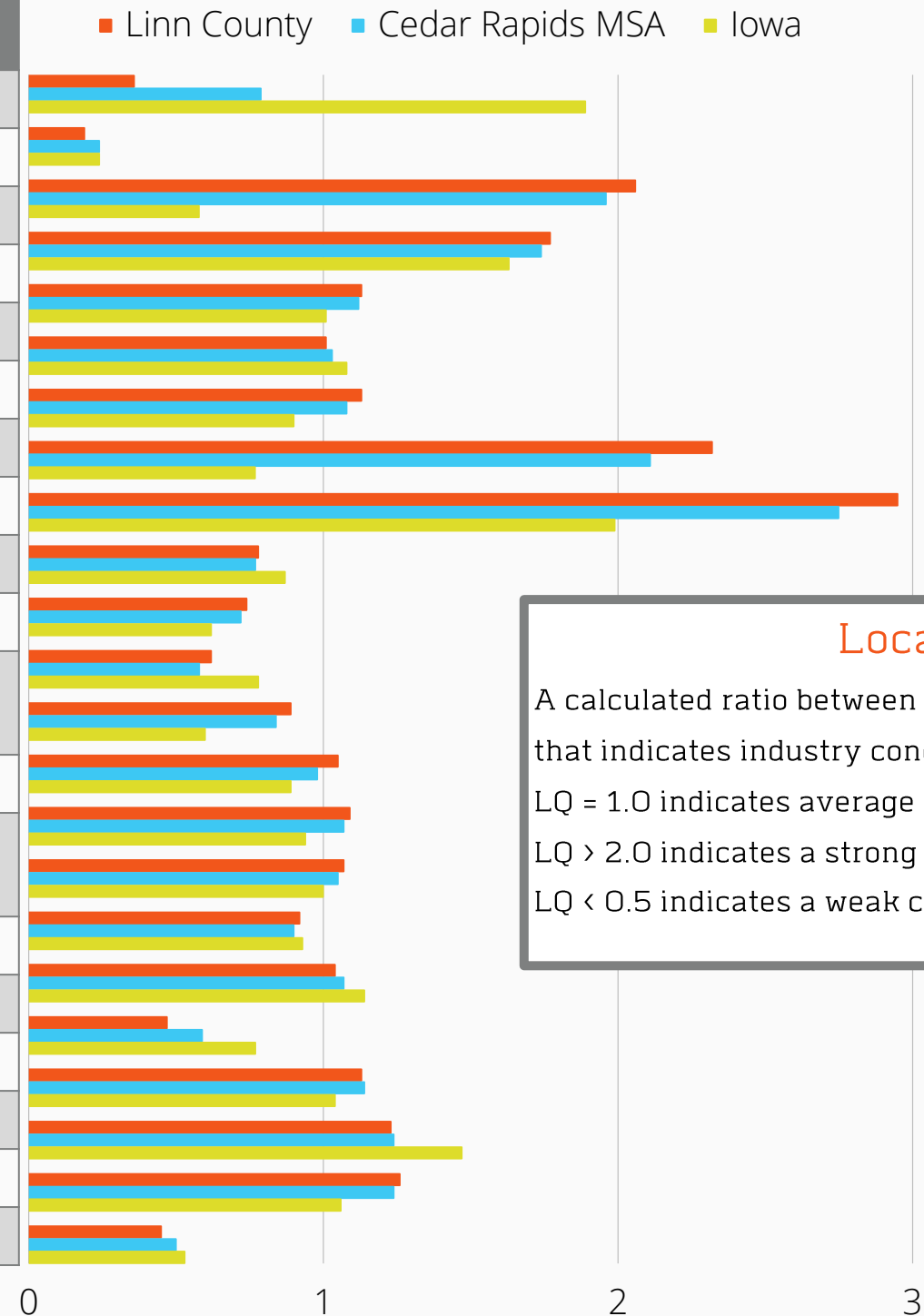
**Location Quotient (LQ)**

A calculated ratio between the local economy and the national economy that indicates industry concentration.

LQ = 1.0 indicates average concentration  
 LQ > 2.0 indicates a strong cluster  
 LQ < 0.5 indicates a weak cluster

# CURRENT CLUSTER CONCENTRATION

Industry Cluster Concentration			
Sector	Linn County	Cedar Rapids	Iowa
Agriculture, Forestry Fishing and Hunting	0.36	0.79	1.89
Mining	0.19	0.24	0.24
Utilities	2.06	1.96	0.58
Manufacturing	1.77	1.74	1.63
Wholesale Trade	1.13	1.12	1.01
Retail Trade	1.01	1.03	1.08
Transportation and Warehousing	1.13	1.08	0.90
Information	2.32	2.11	0.77
Finance and Insurance	2.95	2.75	1.99
Real Estate Rental and Leasing	0.78	0.77	0.87
Professional, Scientific, and Technical Services	0.74	0.72	0.62
Management of Companies and Enterprises	0.62	0.58	0.78
Administrative and Support and Waste Management and Remediation Services	0.89	0.84	0.60
Educational Services	1.05	0.98	0.89
Health Care and Social Assistance	1.09	1.07	0.94
Arts, Entertainment, and Recreation	1.07	1.05	1.00
Accomodation and Food Services	0.92	0.90	0.93
Other Services (Except Public Administration)	1.04	1.07	1.14
Public Administration	0.47	0.59	0.77



**Location Quotient (LQ)**

A calculated ratio between the local economy and the national economy that indicates industry concentration.

LQ = 1.0 indicates average concentration

LQ > 2.0 indicates a strong cluster

LQ < 0.5 indicates a weak cluster





# TARGET INDUSTRIES

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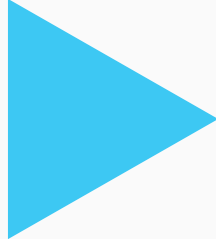
The current targeted industries for Cedar Rapids echo previous target industry analyses for the region. As with previous iterations, the industry location quotients recommend continued commitment to:

- 1) Life Sciences
- 2) Logistics & Distribution
- 3) Food Sciences & Processing
- 4) Office Users (including Entrepreneurialism, Finance, Insurance, Real Estate)
- 5) Manufacturing (including Aerospace, Renewables, Electric Vehicle Batteries, Green and Blue Hydrogen)

The last target industry represents a commitment to retaining cornerstones of the Cedar Rapids economy and innovating within them. Within aerospace there are significant opportunities to pursue downstream technologies and niche sectors to support aerospace companies such as Collins Aerospace. Clustering the aerospace supply chain can leverage additional engineering jobs and serve as an opportunity to recruit more young professionals to Cedar Rapids. Likewise, there are opportunities to crosspollinate target industries, between Life Sciences, Food Sciences, and Manufacturing. Some of the aerospace initiatives outlined by Collins would also help occupy office space.

# LIFE SCIENCES





# LIFE SCIENCES

## INDUSTRY OVERVIEW

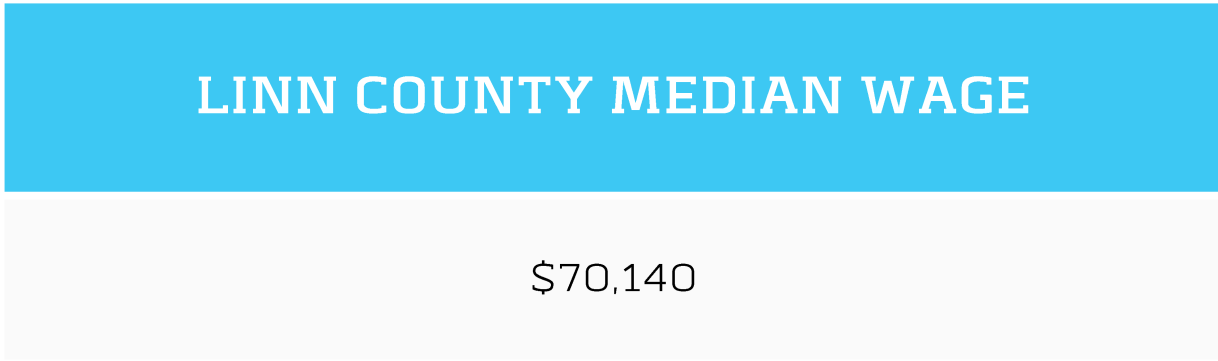
This sector encompasses services that provide care and support the wellbeing of the body and mind. It also consists of those businesses that support but do not directly participate in Health Care. These include research into new technologies and innovations, manufacturing of medical devices, and the development of "Health IT" software which consolidates and streamlines access to medical records and other important information.

The Life Sciences industry is currently one of the largest in the U.S. economy and is projected to experience growth in line with the US economy over the next decade. This industry is fueled by high levels of scientific and technology research and, as such, draws heavily from research institutions such as universities. Moreover, funding requirements within the industry are substantial, placing companies and entrepreneurs that work within the industry in particular need of readily accessible venture capital, government funding, and other sources of capital.

In Cedar Rapids, this industry also meets many of the theme elements:

- Many Life Sciences jobs pay competitively and are attractive to young professionals, especially in a community such as Cedar Rapids with a lower cost of living
- Life Sciences is innovative in that new technologies, processes, and knowledge are constantly emerging, which also presents an opportunity for entrepreneurs
- Cedar Rapids, as a major population center, already has a strong health care cluster
- Many Life Sciences establishments, such as specialty clinics or Health IT software developers, can be integrated into a revitalized downtown

- Recruit Young Professionals
- Innovate Within Industries
- Sustain Business Retention
- Increase Entrepreneurship
- Revitalize Downtown



# LIFE SCIENCES

## A BROADER PERSPECTIVE ON LIFE SCIENCES

Given the global developments since March 2020, international investment in the life sciences has seen a dramatic increase. As governments and private industry continue to respond to COVID-19

International players in Life Sciences have seen their stock rise through some combination of government investment, talent-attraction policies, linkages with related industries, and a desire to respond to COVID.

Across the board, countries and companies are looking to expand Life Sciences' activities. To do so, they are improving patient experiences, workforce experiences, shoring up supply chains, and increasing dynamism to respond to unforeseen global challenges in a nimbler manner.

At the fore of this global transition will be commitments to competitive drug pricing, responsiveness to environmental, social, and governance (ESG) issues, and more patient-centric policies. Similarly, improved workplace conditions will become a focal point for employees within Life Sciences.

The global response to COVID saw unrivaled partnerships between countries at the top of the Life Sciences industry, including the United States, Brazil, China, the European Union, India, Japan, Switzerland, and the United Kingdom.

Life Sciences companies are becoming increasingly interested in accessing diverse populations for clinical trials. Clinical trial participation is often based on availability of patients who can afford to participate. As such, increased compensation for clinical trial participation is one factor in improving a lack of diversity.

Leading Life Science companies are working with regional and national policymakers to update regulations related to drug pricing, drug clinical trials, and drug authorizations.

The future of Life Sciences will be determined, in part, by the availability of data scientists to process increasingly large datasets and make them actionable in even shorter amounts of time.

## US INDUSTRY CONCENTRATION

Boston-Cambridge, MA
San Francisco Bay Area, CA
San Diego, CA

## EMERGING US INDUSTRY CONCENTRATION

Pittsburgh, PA
Houston, TX
St. Louis, MO



# LIFE SCIENCES

## LIFE SCIENCES CHARACTERISTICS

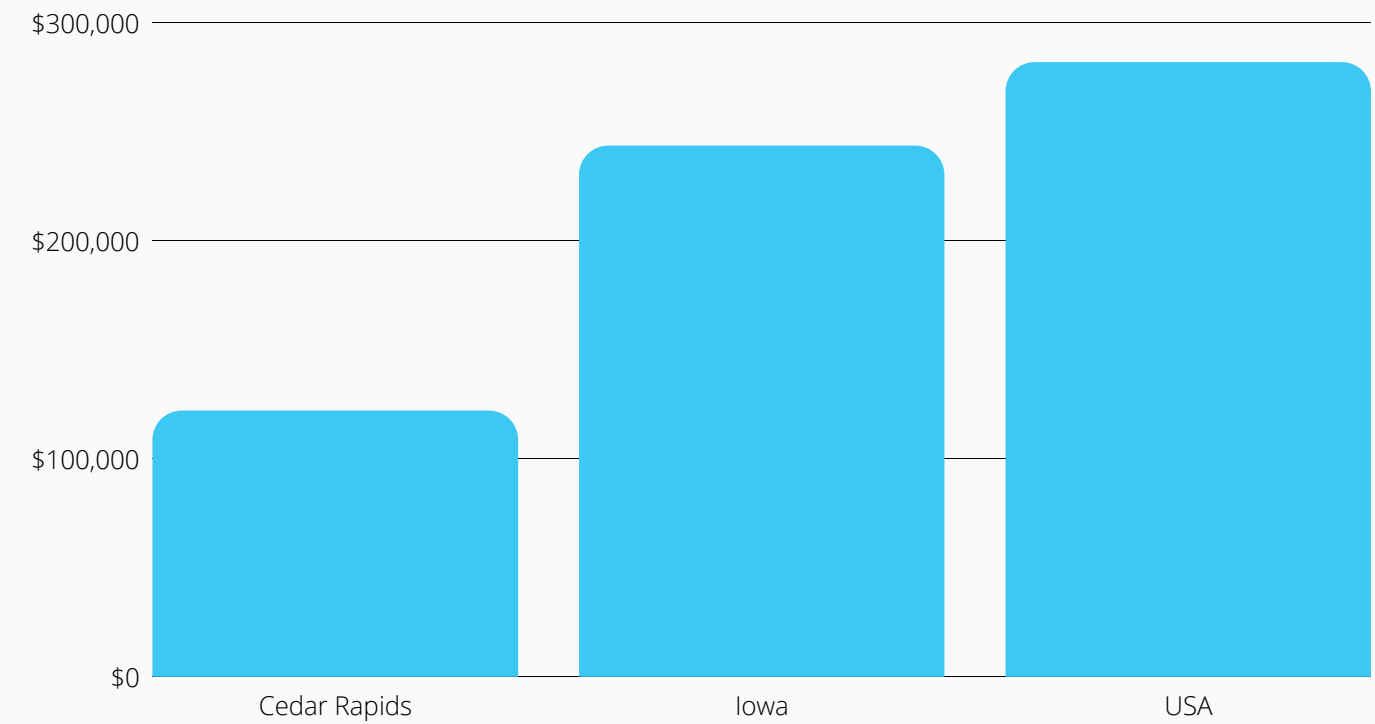
As the second largest population center in Iowa and the major regional economic hub, Cedar Rapids is well positioned to capitalize on the continued boom within the Health Care industry. This is evidenced by the presence of an already healthy industry cluster. Its proximity to the University of Iowa and its associated medical school and research institutions is a huge asset for remaining modern and relevant within the industry. Likewise, its proximity to Iowa State University and its veterinary research capacity can serve as another asset within industry diversity.

As of 2019, Linn County employed over 20,000 people in the Life Sciences Industry. The average salary for these workers are below the Iowa and US averages. However, it is important to note that these averages consider all employment within Life Sciences, including leadership positions, which skew the figures slightly. Additionally, accounting for cost-of-living expenditures such as housing, food, health, utilities, and transportation, Cedar Rapids is a much more affordable community than the United States and slightly more affordable than Iowa. As such, residents of Cedar Rapids who are employed in the Life Sciences have a higher purchasing power and a greater quality of life.

While Life Sciences has already proven to be a successful industry for Cedar Rapids, there is also much untapped potential. As with many of Cedar Rapids' industries, attracting and retaining skilled Young Professionals remains a focal point. Additionally, the close proximity to the University of Iowa and Iowa State University remain underleveraged assets: existing partnerships and commercialization endeavors can be increased.

\* A note regarding average wages – average wages are used due to an absence of most recently available median income data at all geographic scales. It is acknowledged that average wages are a relative measure and are skewed across all industries due to executive positions, respectively.

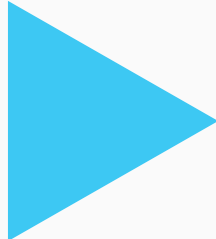
AVERAGE WAGES\* IN LIFE SCIENCES, 2019 ADJUSTED TO 2021



## INDUSTRY CRITERIA

- Appropriate Regional Demographics
- Workforce Retention
- Access to appropriate market
- Existing Medical Presence
- Proximity to major institution for academic medicine
- Existing professional and industry organizations
- Potential venture capital and commercialization opportunities
- Proximity to institutional research and development
- Existing partnerships with research institutions or commercialization entities
- Availability of affordable lab space

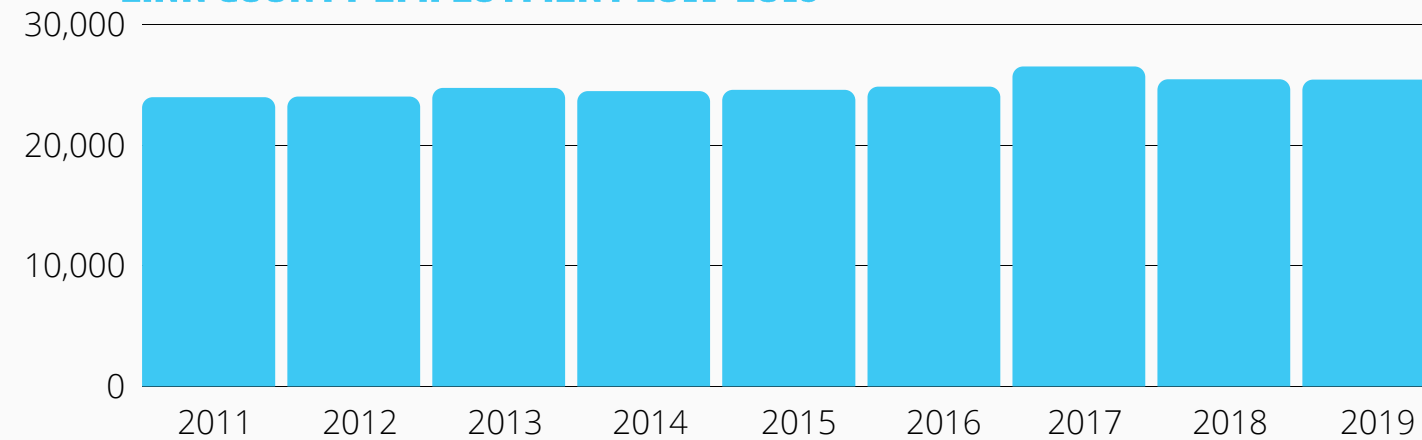
Sources: AE, BLS, CBRE



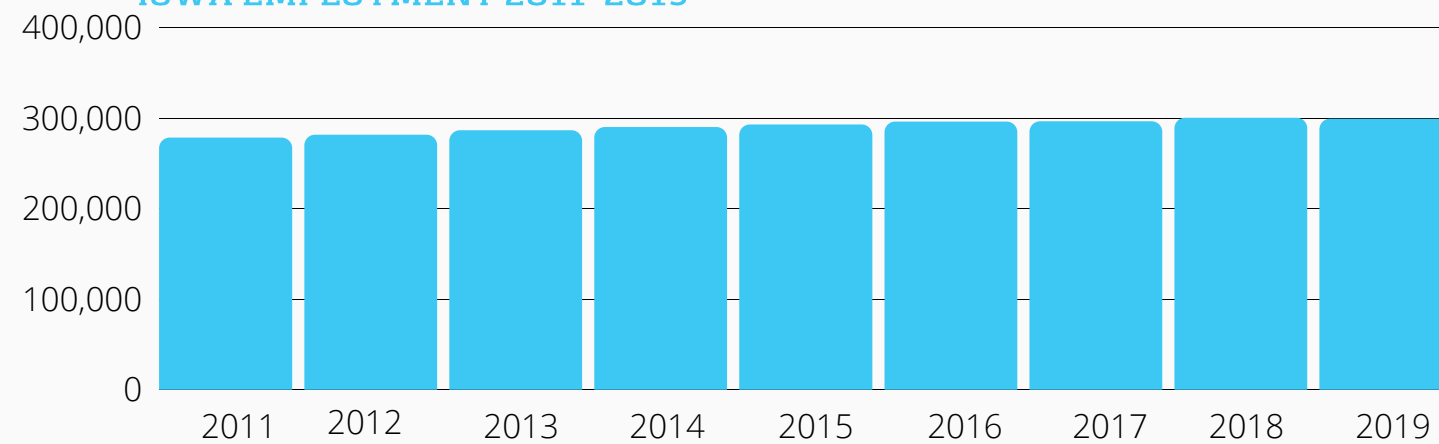
# LIFE SCIENCES

## LIFE SCIENCES EMPLOYMENT

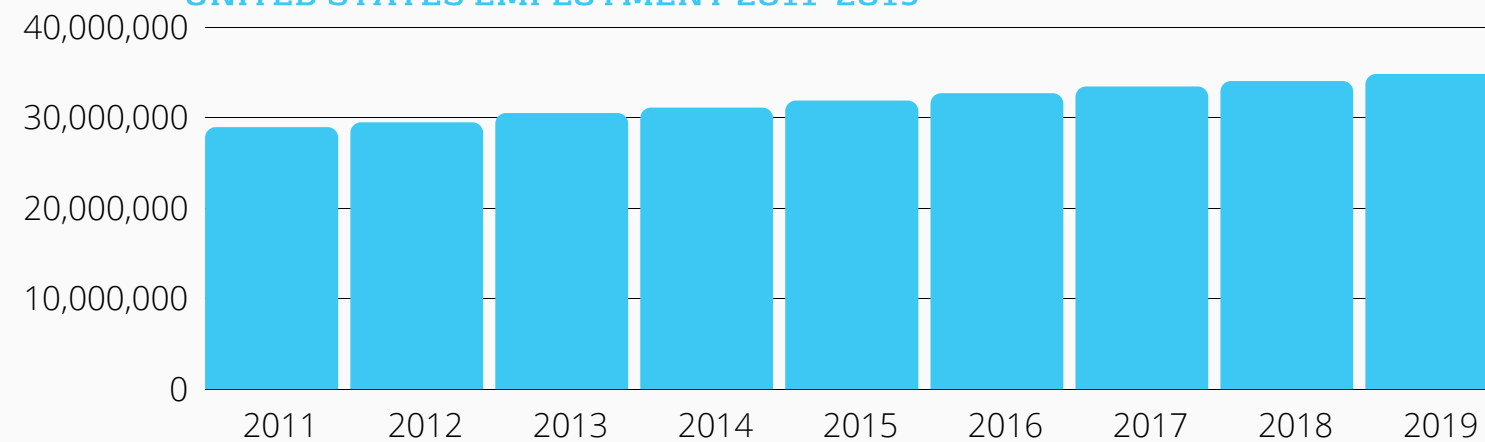
LINN COUNTY EMPLOYMENT 2011-2019



IOWA EMPLOYMENT 2011-2019



UNITED STATES EMPLOYMENT 2011-2019

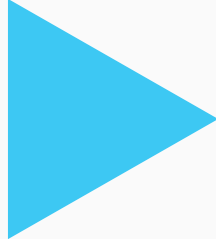


### LOCAL EMPLOYMENT TRENDS

Linn County has seen modest growth in the Life Sciences over the past decade, adding over 2,000 such jobs. It has done well to maintain its Life Sciences workforce over that timeframe. Linn County and Cedar Rapids' Life Sciences employment is viewed as stable and is well positioned to take full advantage of this industry's continued success. The pandemic may have slowed some growth, but the overall trajectory is stable and positive.

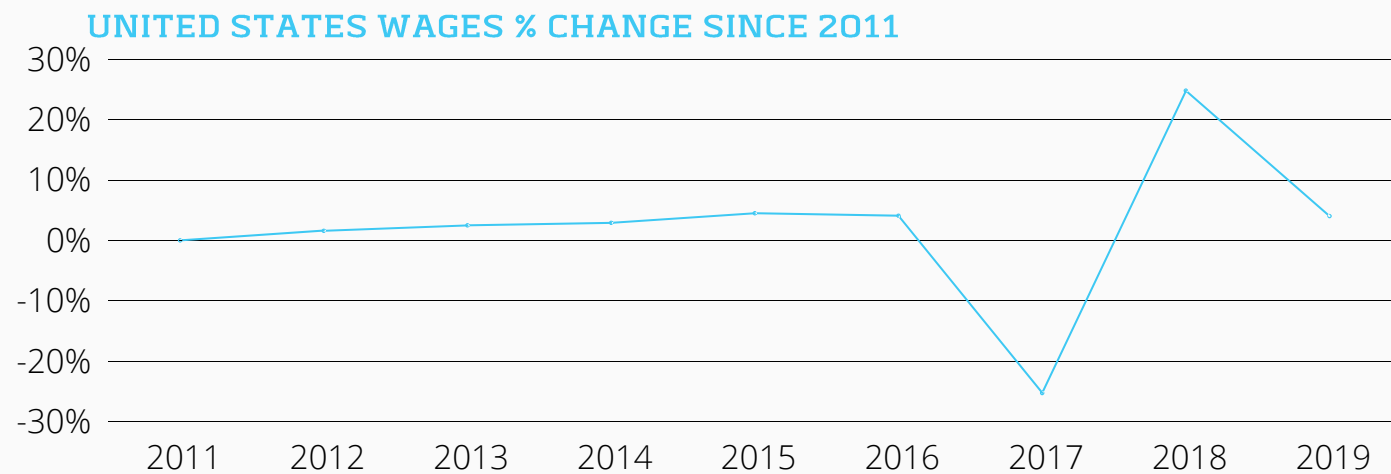
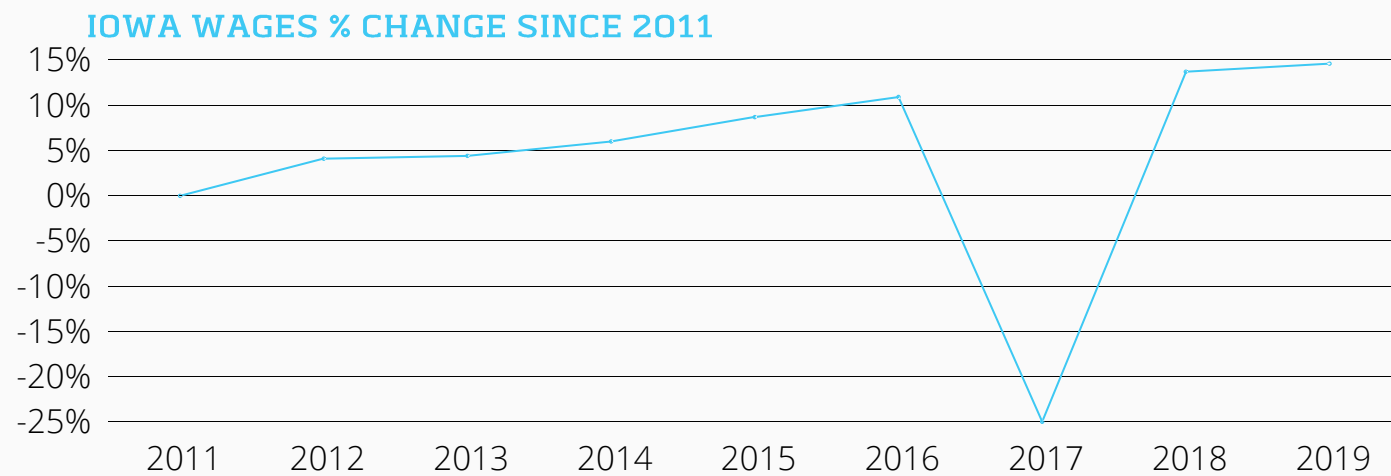
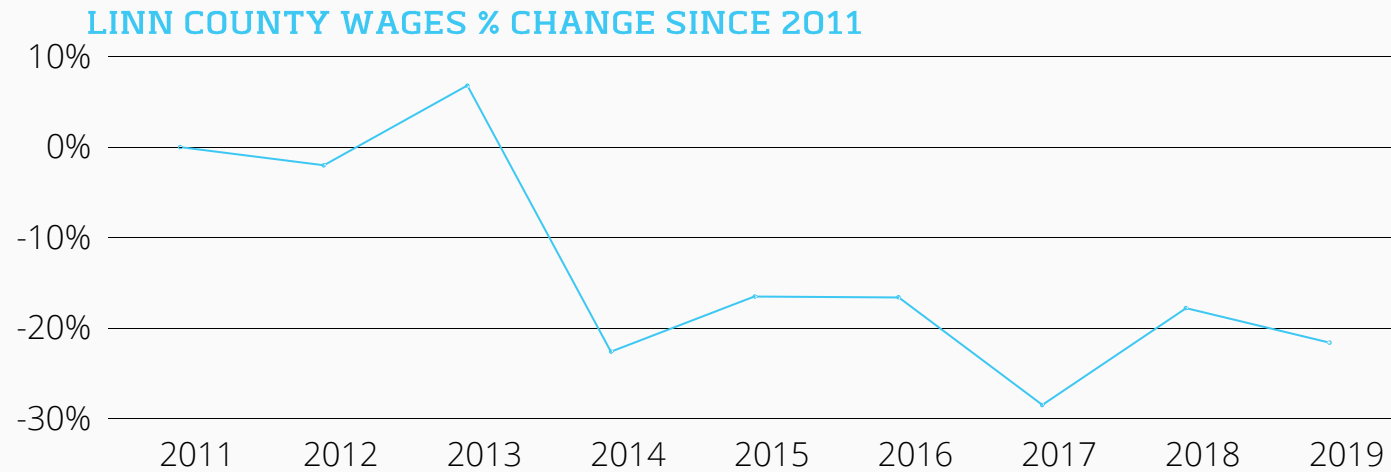
### REGIONAL AND NATIONAL EMPLOYMENT TRENDS

Iowa's Life Sciences employment grew in a similar fashion to that of Linn County's. While slower than the overall growth of the United States, Linn County and Iowa proximity to recent graduates from regional colleges and universities provides an opportunity to infuse younger talent into this workforce. The leadup to COVID saw steady gains in Life Sciences employment. While there was a bit of dip during COVID due to the unprecedented challenges facing many frontline healthcare workers, this industry will continue to grow for the foreseeable future.



# LIFE SCIENCES

## LIFE SCIENCES WAGES ADJUSTED TO 2021 DOLLARS



\*There is not one singular event that can be attributed for the drop in 2017

### LOCAL WAGE TRENDS

Wages in Life Sciences in Linn County have decreased 21.6% from 2011 to 2019. However, these wages are still strong for the community given the relatively low cost of living.

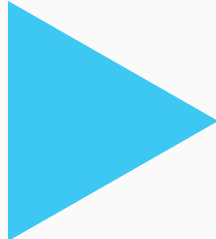
### REGIONAL AND NATIONAL WAGE TRENDS

Regional and National growth rates for average wages are higher than Linn County, with Iowa's Life Sciences wages growing 14.6%. The national wage, growing at 4%, has growth rates higher than Linn county though lower than Iowa.

It is important to note that the wage discrepancies may be due in part to the concentration of corporate or executive positions located outside Linn County.

## LINN COUNTY MEDIAN WAGE

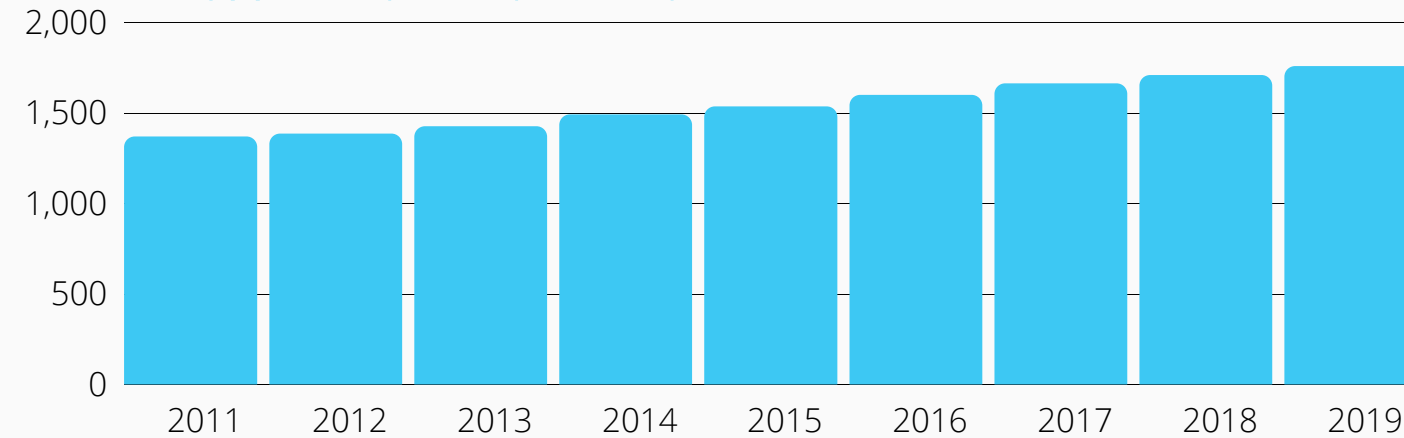
\$70,140



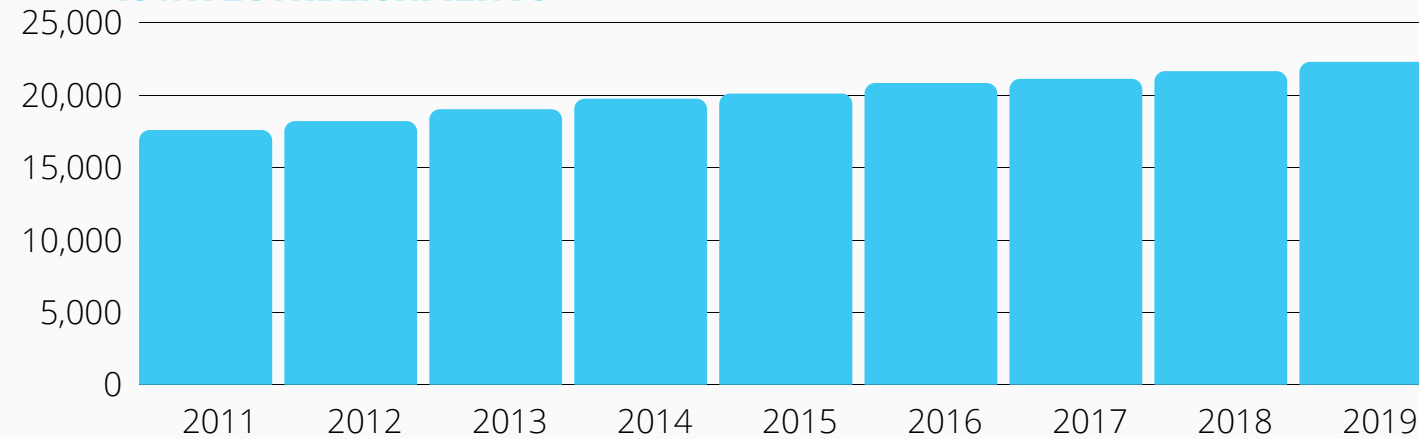
# LIFE SCIENCES

## LIFE SCIENCES ESTABLISHMENTS

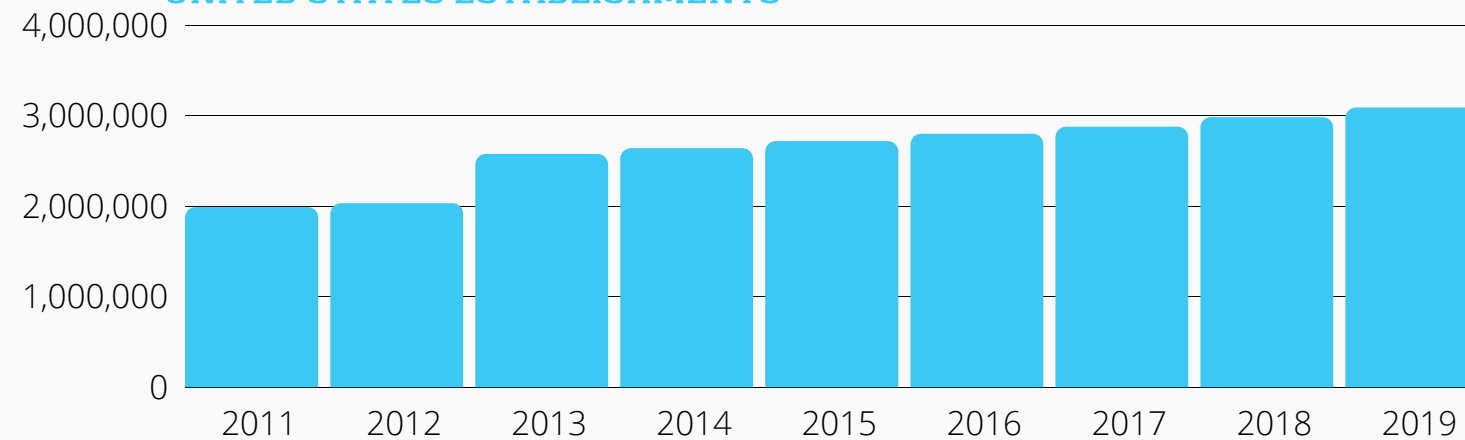
### LINN COUNTY ESTABLISHMENTS



### IOWA ESTABLISHMENTS



### UNITED STATES ESTABLISHMENTS



### LOCAL ESTABLISHMENT TRENDS

While Linn County's Life Sciences' employment increased modestly, its number of Life Sciences establishments grew by over 28% during that same time. The distribution of life science employment has changed, featuring more firms with fewer employees. The smaller size of such firms reflects the outlook for Life Sciences in general. Those firms that are able to respond with agility will be at the forefront of innovation within Life Sciences.

### REGIONAL AND NATIONAL ESTABLISHMENT TRENDS

Linn County's increase in Life Sciences establishments is mirrored by similar efforts across Iowa and the United States. Iowa's establishments grew by nearly 27%. Nationally, the number of establishments has gone from just over two million to just over three million in less than a decade, a 55% increase.

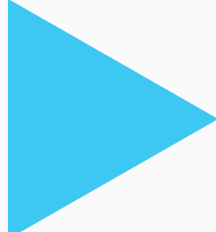




# TOP LIFE SCIENCE OCCUPATIONS IN LINN COUNTY

Occupation	Employees	Salary	Education Needed
Home Health and Personal Care Aides	2,250	\$27,869	High School Diploma or Equivalent
Registered Nurses	1,560	\$96,263	Associates Degree
Nursing Assistants	998	\$33,430	High School Diploma
Software Developers and Software Quality Assurance Analysts and Testers	826	\$126,238	Bachelors Degree
Office Clerks, General	524	\$37,541	High School Diploma
Medical Assistants	495	\$53,813	Post Secondary Certificate
Receptionists and Information Clerks	481	\$41,284	High School Diploma
Licensed Practical and Licensed Vocational Nurses	453	\$58,485	Post Secondary Certificate
Customer Service Representatives	447	\$52,420	High School Diploma or Equivalent
Medical Secretaries and Administrative Assistants	400	\$53,326	Some College

Sources: AE, BLS, CBRE



# RANKING OF CEDAR RAPIDS LIFE SCIENCES

RANKING OF CEDAR RAPIDS LIFE SCIENCES					
Assessment Rationale	Life Sciences Variable	Leading	Strong	Average	Weak
<ul style="list-style-type: none"> <li>• Same growth rate as regional and national employment</li> <li>• Appropriate regional characteristics for continued growth</li> </ul>	Employment Trends			●	
<ul style="list-style-type: none"> <li>• Wages remain below the national average, and the state average</li> <li>• Wages have been declining slightly</li> </ul>	Wage Trends				●
<ul style="list-style-type: none"> <li>• Business establishments have experienced healthy growth</li> <li>• Business establishment trends are in line with state, but below national trends</li> </ul>	Business Establishments		●		
<ul style="list-style-type: none"> <li>• Cedar Rapids region has excellent educational institutions to train work force</li> <li>• Current conditions present some problems for workforce retention</li> </ul>	Employee Skill Set			●	
	Overall Life Sciences Industry			●	

Sources: AE, BLS, CBRE

# TARGET CLUSTERS IN LIFE SCIENCES

## CONTRACT RESEARCH & TESTING

A contract research organization (CRO) specializes in performing clinical and laboratory research services, as well as product development for client companies that have ownership of the process, product, or patent. The services performed by these organizations span the entire range of possible research areas. A clinical testing organization, similar to a CRO, provides outsourced support to other biopharmaceutical companies, typically drug developers. The clinical testing organization can handle all or just certain stages in the clinical trial process that is mandated by the FDA for drug approval. This requires identifying and screening test subjects, performing testing in accordance with FDA procedures, and certification of results.

## CLINICAL TESTING LABS

These laboratories are testing focused with a light research component. They typically operate near medical universities and large health care systems. The industry is growing and expanding to new markets. Testing laboratories are generally low environmental impact operations but can use moderate amounts of water and wastewater relative to their size. Parking requirements can result in significant impervious cover. The medical testing industry will continue to expand with the overall health care market.

## BIO-MANUFACTURING

Bio-manufacturing captures many different subindustries. Biopharmaceutical manufacturing is one such example. These types of organizations provide outsourced manufacturing services to drug makers to scale up the production of drugs or biopharmaceuticals. Many drug discovery bioscience companies are small and do not have the financial means to support capital-intensive manufacturing equipment. For these companies, the ability to outsource production is critical. As such, the industry is increasingly concerned about operating costs and liability issues. Facility location trends indicate movement outside major metropolitan areas but still maintaining access. Operations are also subject to intense federal scrutiny and federal inspections. While generic manufacturing has moved offshore, the risks are considered too high for many advanced drug therapies.

## BIO-AGRICULTURE

Bio-Agriculture uses biotechnology to modify agricultural feedstocks to be more productive. This could be an enhancement of crop productivity, resistance to disease, or a genetic modification for added human health benefits. Nutraceuticals is the use of food or agricultural inputs to provide health and medical benefits, including the prevention and treatment of disease. The agricultural and industrial bioscience markets comprise nearly 20% of total biotechnology employment. This niche has potential applications for counties that still are highly dependent on agriculture. The application of bio-agriculture technologies could make the development of these crops more economically viable.

# TARGET CLUSTERS IN LIFE SCIENCES

## WORKFORCE GROWTH CATALYSTS

Attracting and retaining a quality workforce is more important in high tech fields such as life sciences. Workers tend to be highly mobile; they are willing to venture into a community, but they are also easily swayed away. In an industry with high turnover, people tend to seek communities with numerous employment options. The typical bioscience firm has less than 50 employees, and most are very well educated. Life sciences firms employ many PhDs and will require an area research university with graduate life-sciences programs. The most concentrated occupational groups in the Life Sciences industry are those pertaining to life and physical science. Nearly all of these occupations require at least a bachelor's degree, and many require at least a PhD.

## CURRENT WORKFORCE

Given the existing life science industry in Cedar Rapids, the workforce is well positioned for an easy transition to the target industry sectors. Most jobs in life sciences have easily transferable skills and do not require entirely new training.

## KEY CLUSTER OCCUPATIONS

- Chemists
- Physicals
- Chemical Technicians
- Medical & Clinical Lab Technicians
- Medical & Clinical Lab Technologists
- Healthcare Support Workers
- Diagnostic Medical Sonographers
- Radiological Technologists
- Computer Scientists
- Couriers & Messengers
- General Engineers
- Electronic Engineers
- Industrial Engineers
- Mechanical Engineers
- Electrical Engineers

# LOGISTICS AND DISTRIBUTION





# LOGISTICS AND DISTRIBUTION

## INDUSTRY OVERVIEW

Logistics and distribution is the process of moving a good from producer to consumer including all the planning, storage, and transportation that process requires.

While traditionally manufacturers managed the storage and distribution of their own goods, increasingly efficient yet complicated logistics processes and technologies have led to the rise of third-party distributors. These businesses specialize in supply chain management and have greatly streamlined global transportation and logistics networks.

However, COVID and subsequent global events such as the Suez Canal accident have created significant backlogs and supply chain disruptions across the globe and domestically. Despite these short-term setbacks, the entire industry is well-positioned to increase its importance within the US economy.

Supported by federal directives, there is greater demand to shore up supply chains from product creation to product delivery in the US, especially with connections to the defense industry. Logistics and distribution will see continued growth. Through 2031, this industry should see nearly 8% growth. More specifically, logisticians are expected to see a 28% increase in jobs over the next decade.

Logistics & Distribution in Cedar Rapids also meet many of the theme elements:

- Supply chain management is a growing field of study in both undergraduate and graduate level studies. The high wages associated with these fields will be attractive to Young Professionals. In 2013, the national average wages for logisticians and supply chain managers were \$77,000 and \$98,000 respectively.
- Cedar Rapids' has a strong and quickly growing foundation of logistics establishments which is developing into a strong cluster to provide both stable employment and promote future industry growth. Coupled with a commitment to improve the transportation infrastructure, Cedar Rapids is positioned well in terms of its logistics and distribution assets and its relative location near larger markets in the United States.
- The highly competitive and constantly evolving environment of the logistics industry mean creative and innovative thinking are essential for success.

- Young Professionals
- Creative
- Business Retention
- Entrepreneur Friendly
- Downtown Redevelopment

## LINN COUNTY MEDIAN WAGE

\$43,820



# LOGISTICS AND DISTRIBUTION

## A BROADER PERSPECTIVE ON LOGISTICS AND DISTRIBUTION

In the World Bank's latest ranking of logistic hubs, all Organization for Economic Cooperation and Development (OECD) countries landed in the top third – communicating the inevitable “logistics gap” between low- and high-income countries. The gap typically results from discrepancies in infrastructure, technology, stability, and good governance. Still, there is significant variance in the quality of logistics among OECD countries.

Globally, those countries at the forefront of logistics and distribution activity and innovation are committed to:

- Trade infrastructure investments
- Regional trade facilitation
- Establishing trade corridors
- Multimodal transportation
- Port efficiency
- Customs & border efficiency

Countries with the greatest commitment to logistics and distribution growth:

- Support innovation & productivity through public-private partnerships
- Prepare next generation logisticians through government supported investments in and partnerships with higher education institutions

Germany landed the top spot on the Bank's list through well-planned infrastructure, hassle-free customs, responsive tracking, and fast delivery of goods.

Additional European countries such as Sweden, Belgium, Austria, and the Netherlands score high on the World Bank's Logistics Performance Index because of their high rankings in timeliness, tracking, logistical competency, and infrastructure. Each scores very high for international shipments and customs efficiency.

Hong Kong's cargo-friendly airport, its massive container seaport and its free port status have ensured its reputation as leading Logistics hub. Singapore continues to distinguish itself through efficiency, innovation, and competitive costs.

## US INDUSTRY CLUSTERS

Chicago, IL

Los Angeles, CA

Houston, TX

Memphis, TN

## GLOBAL INDUSTRY CLUSTERS

Germany

Singapore

Hong Kong

Shanghai, China



# LOGISTICS AND DISTRIBUTION

## L & D CHARACTERISTICS

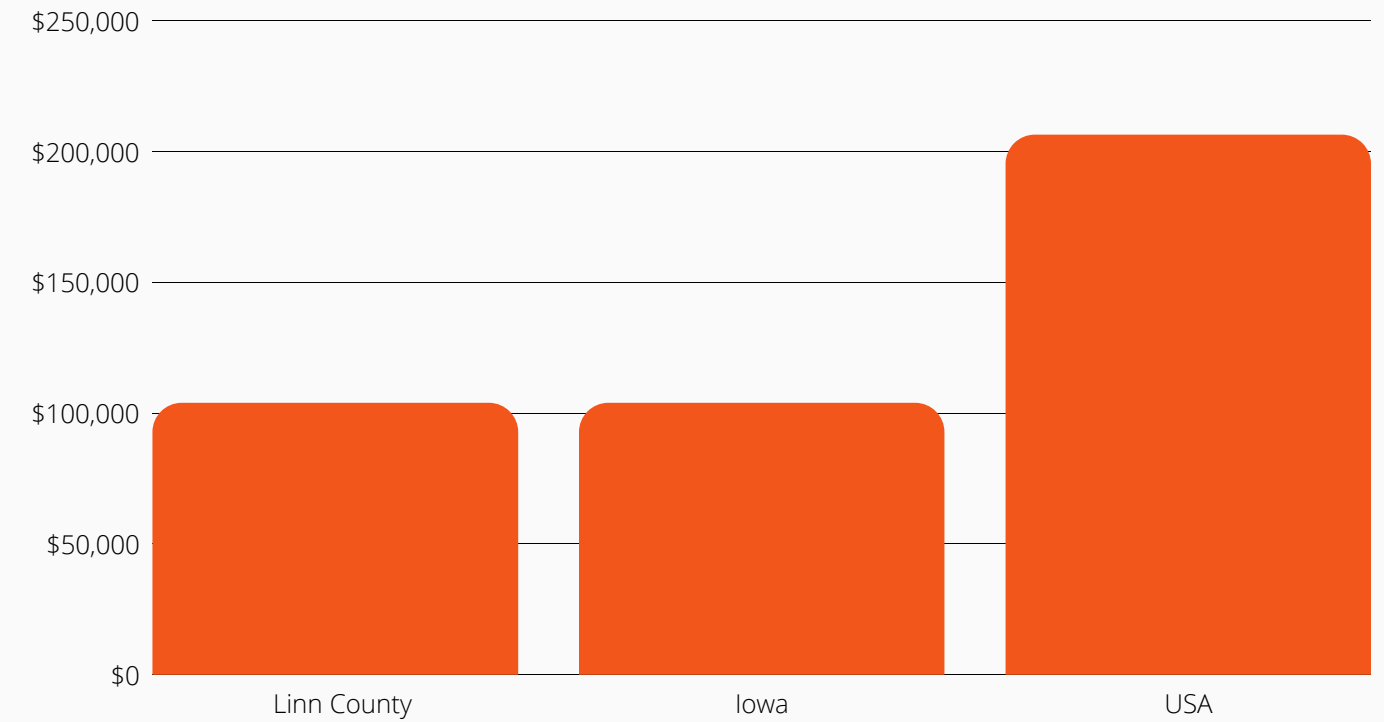
Cedar Rapids is positioned strategically to serve as a major logistics hub for the Midwest. It's presence on the I-380 corridor and proximity to I-80 provide access to major markets in all directions. Cedar Rapids also serves as a major rail hub which can quickly serve several major cities including Chicago and St. Louis.

Linn County logistics establishments currently employ over 15,000 people. The average wage for a logistics employee in Linn County is well below both the state and national averages. The lower labor costs will be attractive to employers who are looking to relocate or expand their operations.

Cedar Rapids' may be a regional player within the logistics industry, but much can be done to broaden its appeal as a national logistics center. The lack of a hub airport greatly limits potential for expedited shipping and similar endeavors. Likewise, the lack of a major intermodal transport facility restricts the city's shipping capacity and broader market appeal.

\* A note regarding average wages – average wages are used due to an absence of most recently available median income data at all geographic scales. It is acknowledged that average wages are a relative measure and are skewed across all industries due to executive positions, respectively.

AVERAGE WAGES\* IN L&D, 2019 ADJUSTED TO 2021



## INDUSTRY CRITERIA

- Access/Proximity to Interstate
- Rail Access to Major Markets
- Hub Airport Access
- Intermodal Transport Infrastructure
- Proximity to Major Markets
- Availability of Inexpensive Land
- Low Utility and Labor Cost
- Public Policy Support
- Appropriate Regional Demographics
- Skilled Professional Workforce

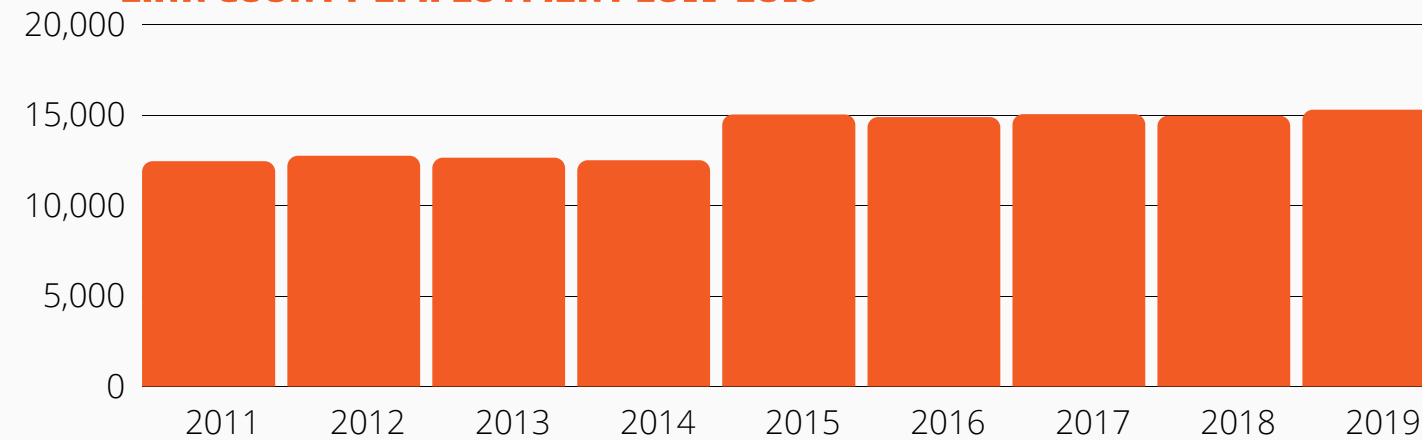
Sources: AE, BLS, CBRE



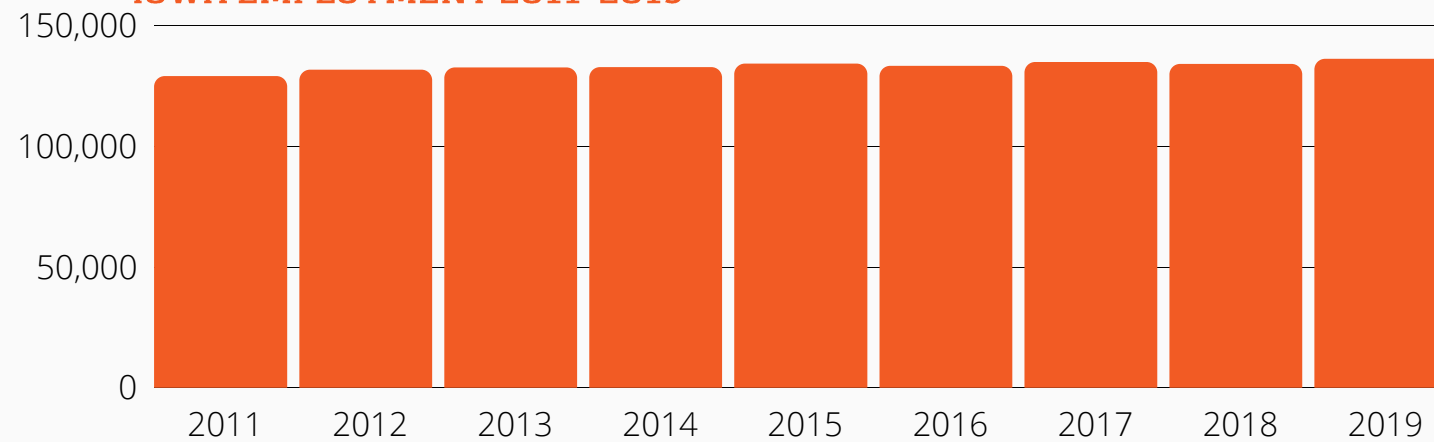
# LOGISTICS AND DISTRIBUTION

## LOGISTICS AND DISTRIBUTION EMPLOYMENT

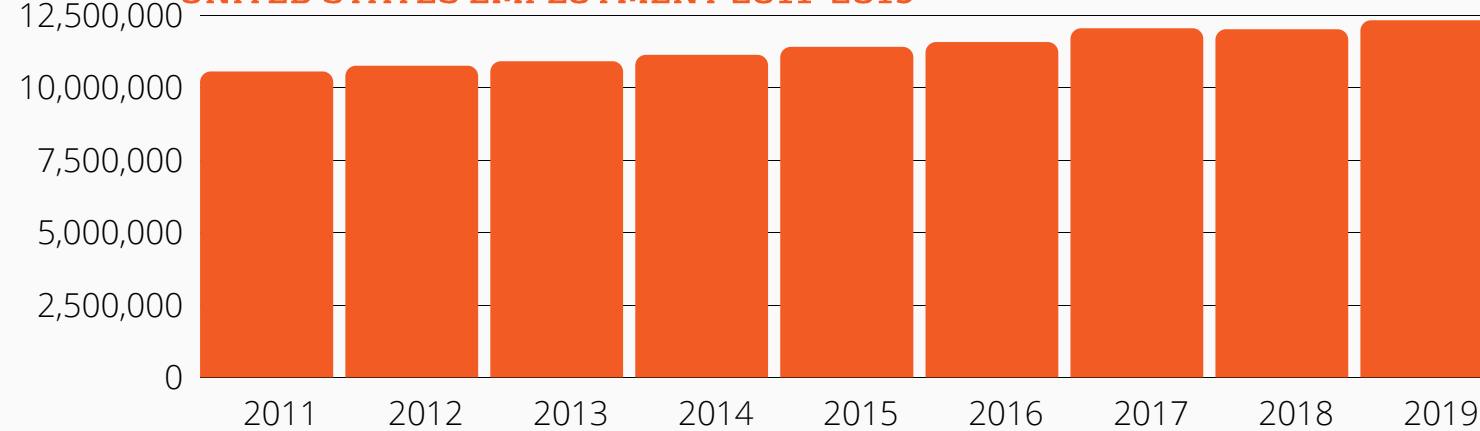
LINN COUNTY EMPLOYMENT 2011-2019



IOWA EMPLOYMENT 2011-2019



UNITED STATES EMPLOYMENT 2011-2019



### LOCAL EMPLOYMENT TRENDS

Employment within Linn County's logistics industry has remained steady across the last ten years with a large increase from 2014 to 2015. Overall, there has been a net growth of from year to year but has shown a healthy net growth of over 2,800 jobs (a 23% increase). This shows a successful logistics and distribution industry in Cedar Rapids, especially when contrasted with state and national trends.

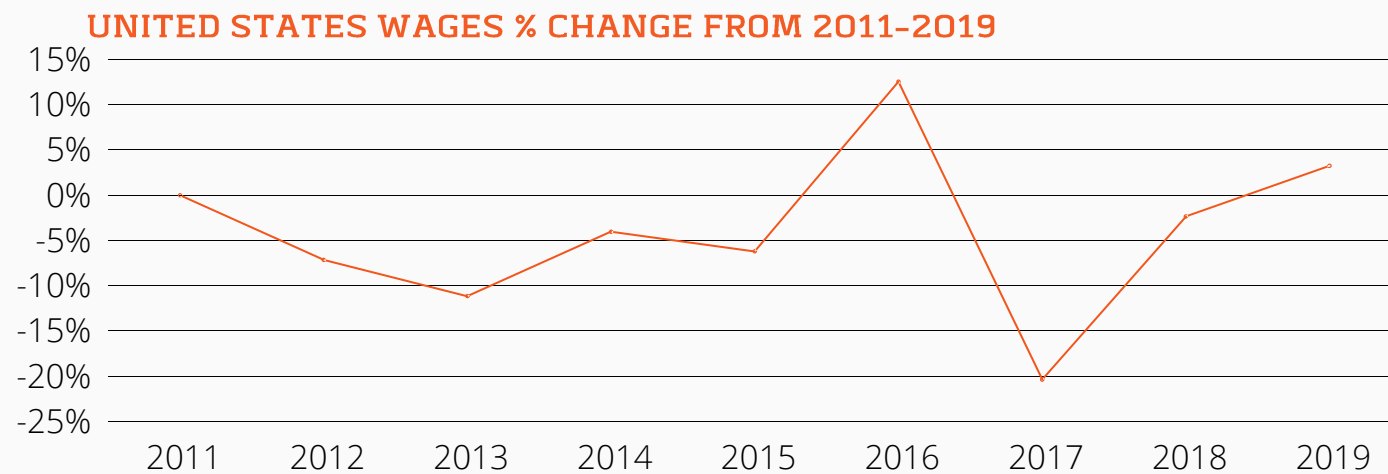
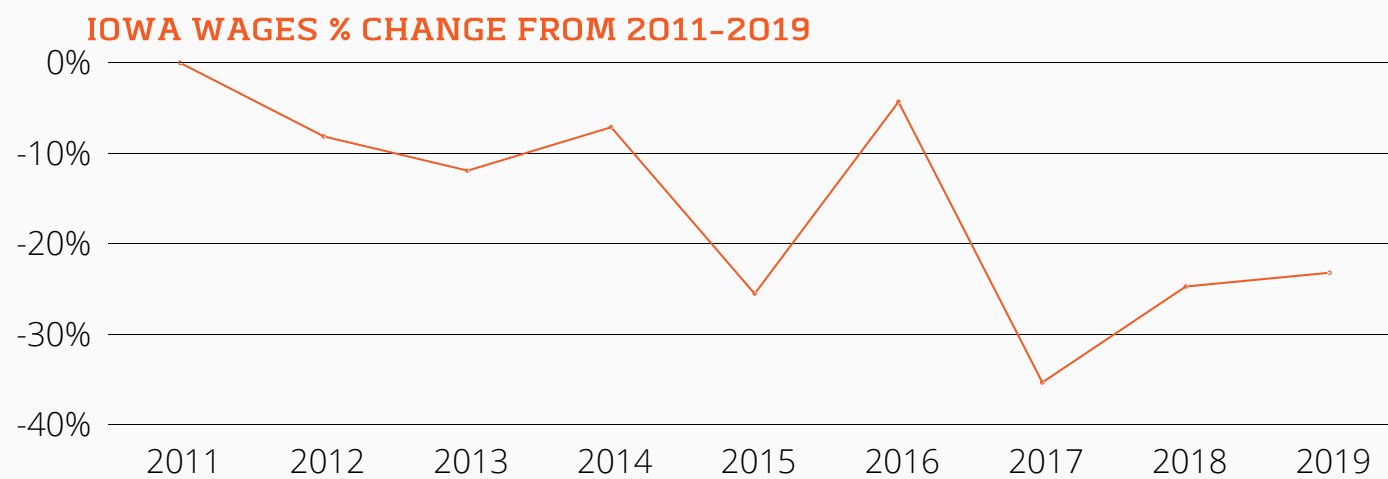
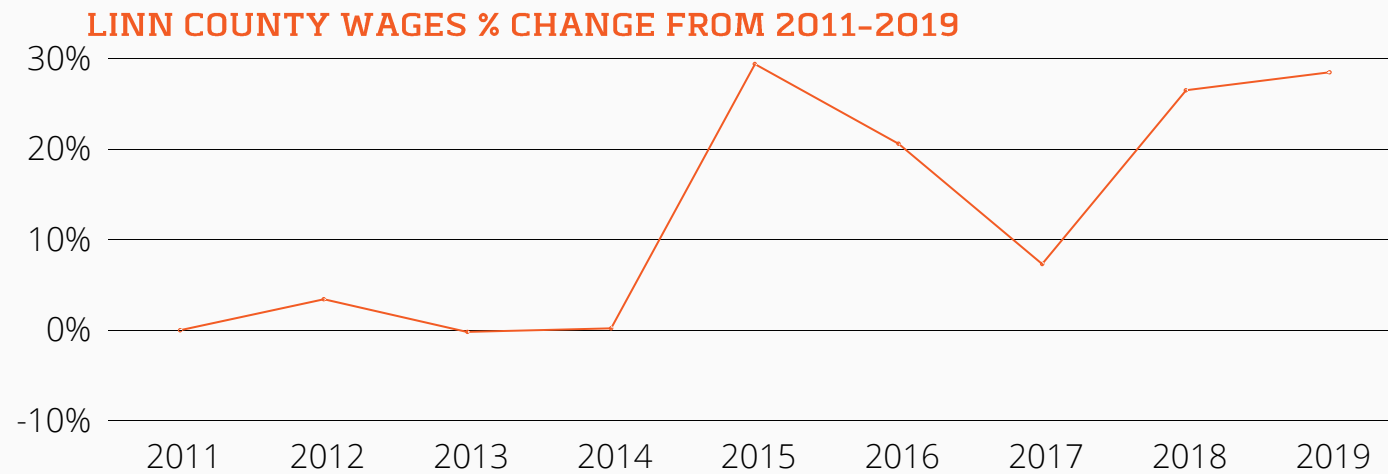
### REGIONAL AND NATIONAL EMPLOYMENT TRENDS

Logistics employment in Iowa and the nation grew, but not at the same rate as Linn County. While both levels exhibited positive 10-year growth, it was at a much lower rate than Linn County. Iowa employment has grown 5% over the last decade and US employment in Logistics and Distribution has grown 16%. The positive growth across all three geographies suggests this industry will continue to be an integral part of each economy.



# LOGISTICS AND DISTRIBUTION

## LOGISTICS AND DISTRIBUTION WAGES AND PAY



\*There is not one singular event that can be attributed for the drop in 2017

### LOCAL WAGE TRENDS

Logistics employment trends in Linn County have been generally positive and wage trends have grown similarly at nearly 29%. The wage percent change is ahead of the Iowa and national averages.

### REGIONAL AND NATIONAL WAGE TRENDS

Linn County's wages are now on par with those across Iowa. While Linn County's wages are growing, Iowa's have been in recovery mode since a overall drop from 2014-2017. The overall change in wages from 2011-2019 is down 27%, however, from 2017 to 2019, wages grew by 17%. Nationally, the wage drop and recovery has followed a similar pattern to that of Iowa. an overall drop of 12% drop from 2011 to 2019, with a 22% increase from 2017 to 2019.

## LINN COUNTY MEDIAN WAGE

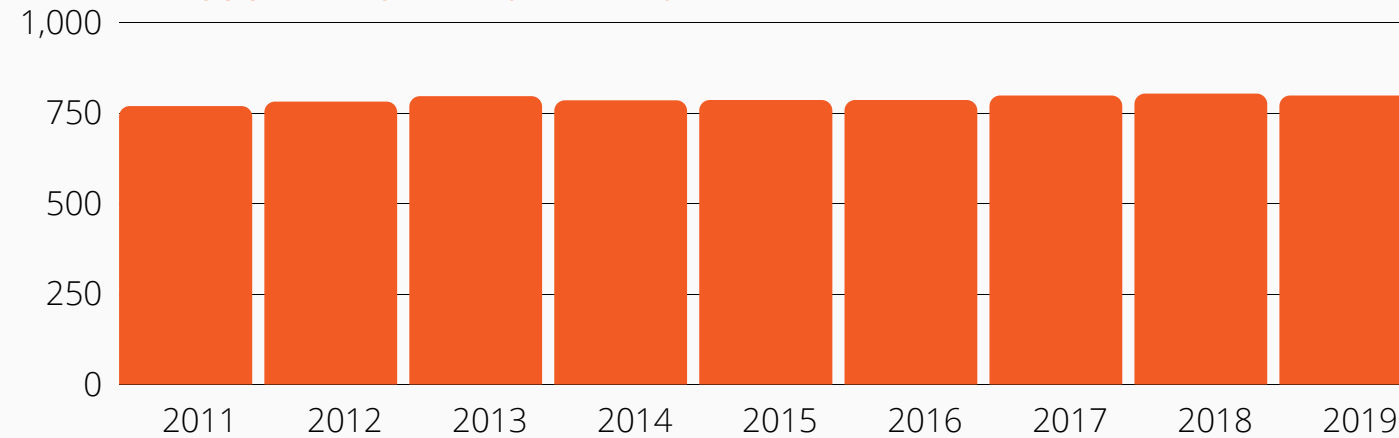
\$43,820



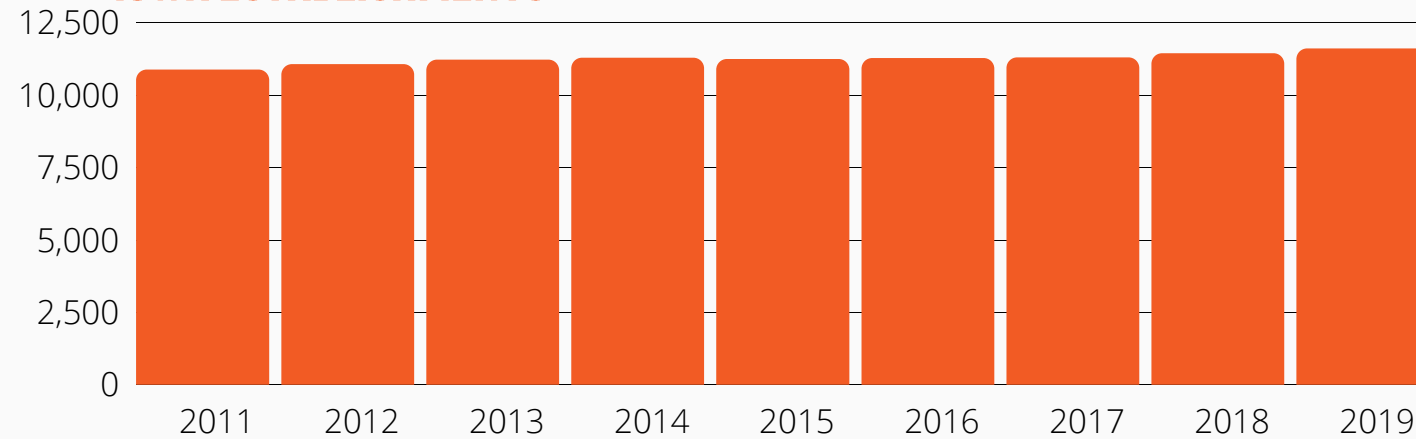
# LOGISTICS AND DISTRIBUTION

## LOGISTICS AND DISTRIBUTION ESTABLISHMENTS

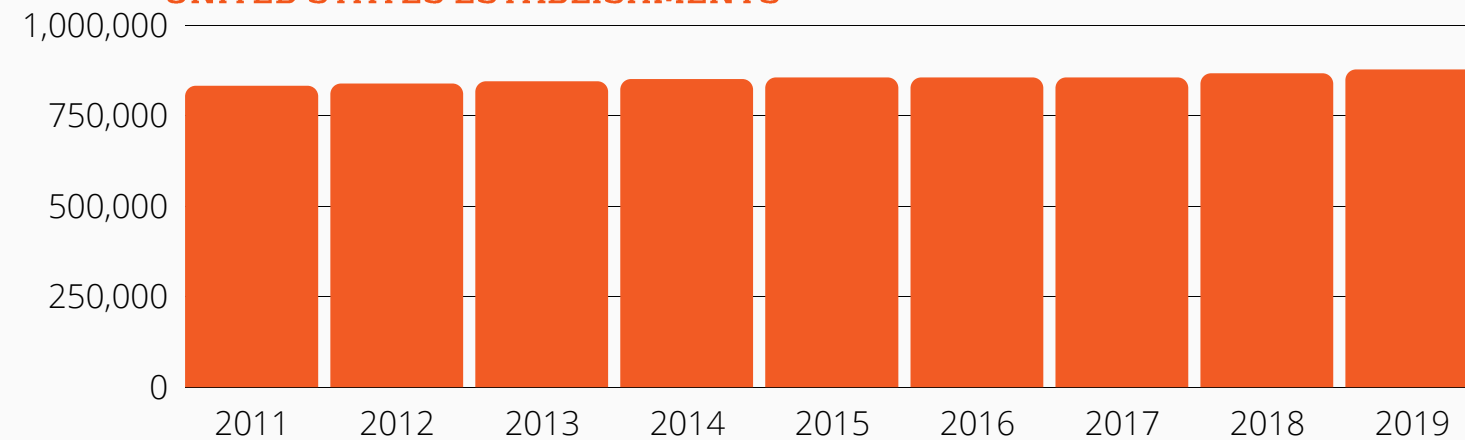
### LINN COUNTY ESTABLISHMENTS



### IOWA ESTABLISHMENTS



### UNITED STATES ESTABLISHMENTS



### LOCAL ESTABLISHMENT TRENDS

Logistics and Distribution is another steady industry in Linn County. The number of establishments has grown 4% since 2011. While there was a loss of five establishments from 2018 to 2019, the net gain of establishments from 2011 to 2019 is 29. The increase in employment while establishments grew modestly suggests that organizations within this industry continue to hire in larger numbers.

### REGIONAL AND NATIONAL ESTABLISHMENT TRENDS

State and national establishment trends generally mirror Linn County. Slow, but steady increases are seen in Iowa (6%) and the United States (5%). These positive growth indicators reflect an increased demand for regional distribution centers to satisfy online purchases.

# TOP L & D OCCUPATIONS IN LINN COUNTY

Occupation	Employees	Salary	Education Needed
Heavy and Tractor-Trailer Truck Drivers	3,529	\$55,738	High School Diploma or Equivalent
Laborers and Freight, Stock, and Material Movers, Hand	1,926	\$42,046	High School Diploma or Equivalent
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	780	\$105,200	Bachelors Degree
Industrial Truck and Tractor Operators	642	\$48,781	High School Diploma or Equivalent
Stockers and Order Fillers	631	\$39,700	High School Diploma or Equivalent
Light Truck Drivers	602	\$54,284	High School Diploma or Equivalent
Office Clerks, General	377	\$45,112	High School Diploma or Equivalent
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	376	\$75,898	High School Diploma or Equivalent
General and Operations Managers	331	\$180,069	Bachelors Degree
Customer Service Representatives	314	\$57,600	High School Diploma or Equivalent

Sources: AE, BLS, CBRE



# RANKING OF CEDAR RAPIDS LOGISTICS AND DISTRIBUTION

RANKING OF CEDAR RAPIDS LOGISTICS AND DISTRIBUTION INDUSTRY					
Assessment Rationale	Logistics and Distribution Variable	Leading	Strong	Average	Weak
<ul style="list-style-type: none"> <li>Strong employment growth relative to Iowa and the United States</li> <li>Significant jump 2015-2019</li> </ul>	Employment Trends		●		
<ul style="list-style-type: none"> <li>Linn county wages are on par with Iowa, but lag behind The United States</li> <li>Wage stability is a strength, but lagging national wages may cause problems</li> </ul>	Wage Trends			●	
<ul style="list-style-type: none"> <li>Number of establishments ha increased slightly and is consistent with state and national trends</li> <li>Number of establishments has continued to grow</li> </ul>	Business Establishments			●	
<ul style="list-style-type: none"> <li>Cedar Rapids' currently faces a shortage of skilled technical workers</li> <li>Strong presence of educational institutions for workforce training</li> </ul>	Employee Skill Set				●
	Overall Logistics and Distribution Industry		●		

# TARGET CLUSTERS IN LOGISTICS AND DISTRIBUTION

## LOGISTICS SYSTEMS DESIGN

The logistics software niche is a growing market that is aimed at optimizing the performance of people, places, and processes. Logistics software focuses on increasing efficiencies in shipping, warehousing, and cargo transportation. One of the key areas of interest is in supply chain management. Customized software solutions that focuses on logistics systems design can be developed to better manage warehouses, global transportation of cargo, workforce productivity, and to fully implement the latest market-specific technologies such as radio frequency identification (RFID) of parcels. One of the benefits of having reliable logistics systems is the ability to track cargo and packages in real-time from anywhere in the world with a high degree of accuracy facilitated by GPS.

## FULFILLMENT CENTERS

Fulfillment Centers specialize in assisting small and medium size companies process orders, which are typically web based. The fulfillment center stores a company's inventory and ultimately ships the product to the end customer once an order is received. Companies generally choose their fulfillment center based on its proximity to the business's customer base. These facilities are found near the middle of the country, in order to serve both coasts, or next to large metropolitan areas. Fulfillment warehouses can range from a few employees to a few thousand.

## ASSEMBLY / DISTRIBUTION OF HIGH-END MEDICAL EQUIPMENT AND SUPPLIES

Included in this niche is the assembly and distribution of consumer goods, medical devices and laboratory equipment (defined as Professional Equipment), and drug therapies. The distribution of these products commands some of the highest wages in the industry, far exceeding the national average wage. As the Baby Boomers continue to age and require more medical attention, the assembly and distribution of these supplies will experience remarkable growth. Sales of consumer goods will continue to be strong as products are imported, assembled within the U.S., and then distributed to large consumer markets.

## FOOD / AGRICULTURE DISTRIBUTION

Speed and efficiency play a large role in the storage and distribution of food and agriculture. Food distributors handle a wide array of products, from supplying local restaurants to shipping commodities nationwide. Agriculture distribution firms are typically clustered around substantial agricultural communities in order to acquire and deliver the goods while still fresh. These firms also benefit from having food processing companies nearby, as distributors can handle both the ingredients and the end product.

# TARGET CLUSTERS IN LOGISTICS AND DISTRIBUTION

## WORKFORCE GROWTH CATALYSTS

Occupations in advanced logistics use varied skill sets. Entry-level positions are available as laborers and materials handlers. Truck drivers are also vital to the industry. For logistics management firms, IT professionals are needed to support supply chain companies as well. The industry has high turnover, so areas need to have a sizable available workforce. Many distribution facilities employ college students part-time, making a young population a key concern.

## CURRENT WORKFORCE

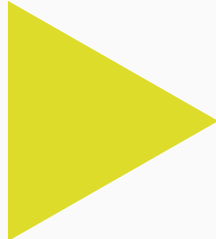
Given the existing logistics and distribution industry in Cedar Rapids, the workforce is well positioned for an easy transition to the target industry sectors. Most jobs in this industry have easily transferable skills and do not require entirely new training. With a significant number of people employed in this sector in the area combined with the concentration of college graduates, advancing the current logistics and distribution industry should be relatively seamless.

## KEY CLUSTER OCCUPATIONS

- Truck Drivers
- Dispatchers
- Transportation & Distribution Managers
- Mechanical & Diesel Technicians
- Industrial Truck Operators
- Freight & Material Laborers
- Shipping, Receiving, and Traffic Clerks
- Production Planning Clerks
- Packers and Packagers
- First-line Managers of Mechanics
- Sales Representatives

# FOOD SCIENCES AND PROCESSING





# FOOD SCIENCES AND PROCESSING

## INDUSTRY OVERVIEW

Food Sciences and Processing (FSP): Food Processing is the transformation of livestock and agricultural products into products for intermediate or final consumption. The food processing industry is the link between the agricultural and retail sectors.

Food Sciences encompasses the research and development efforts to increase industry efficiency as well as the regulatory and quality control practices used to ensure product safety. Bio-agriculture is the niche of this industry that complements agricultural projects but is not directly related to food production. This can include ethanol production facilities or pesticide manufacturers.

As the global population continues to increase, it places greater demands on the available food supply. In response, innovators in the industry continue to develop ways to not only increase the quantity of food produced, but also the quality.

Food processing firms in Cedar Rapids possess traits that align with several themes:

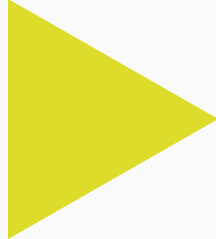
- Growing demand and changing preferences require food producers to be creative in producing healthy, environmentally sustainable food at reasonable prices.
- Historically, food processing has been a major industry for the Cedar Rapids area and existing firms will continue to be essential for future economic development.

- Young Professionals
- Creative
- Business Retention
- Entrepreneur Friendly
- Downtown Redevelopment

### LINN COUNTY MEDIAN WAGE

\$47,190





# FOOD SCIENCES AND PROCESSING

## A BROADER PERSPECTIVE ON FOOD SCIENCES AND PROCESSING

Global population growth is increasing demand for food products. The United Nations' population projects show the global population could approach 10 billion by 2050. Growth at this level will ensure food sciences and processing will be an integral part of the global economy for decades to come.

Technological developments continue to play an important role in food sciences. Traceability systems provide efficient ways to produce, assemble, warehouse, and distribute products. New plants are more automated, transforming a traditionally labor intensive industry into a more automated one. Jobs will be lost but will be offset by an increase in higher skilled, higher wage jobs.

Given the population projections, increased food production becomes paramount. For countries with developed infrastructures, maximizing output is achieved largely through new technologies, such as genetically modified crops.

Less industrialized nations are focusing on infrastructure improvements to increase output. Irrigation systems can free producers from dependence on weather cycles while better roads decrease time and cost of shipping goods to market.

Populous underdeveloped nations like India and China still manage to produce and process food on a massive scale. However, total exports are limited due to enormous domestic demand, and, in the case of China, safety concerns surrounding its food processing facilities.

Globalization and improvements in transportation have led to unprecedented levels of food export and trade. Simultaneously, GMO endeavors by both corporations seeking to maximize crop yields and non-profits looking to improve nutritional options in developing countries are revolutionizing the industry. Although many industry trends are controversial, especially in increasingly health conscious industrialized nations, the food industry must continue to adapt to growing demand and shifting tastes moving into the future.

## US INDUSTRY CONCENTRATION

Chicago, IL

New York, NY

Los Angeles, CA

Dallas-Fort Worth, TX

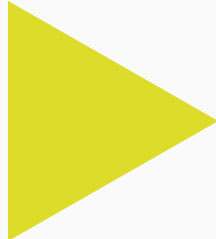
## GLOBAL INDUSTRY CLUSTERS

US

China

India

Brazil



# FOOD SCIENCES AND PROCESSING

## FOOD SCIENCES AND PROCESSING CHARACTERISTICS

It is not by accident that Cedar Rapids is one of the largest food processing centers within the United States. It's centralized location within the "Corn Belt", as well as its developed logistics infrastructure make it ideal for consolidating raw grain and distributing the processed products.

Its close proximity to major academic institutions provides a ready labor force to develop the technology and processes that will define the next generation of American food production.

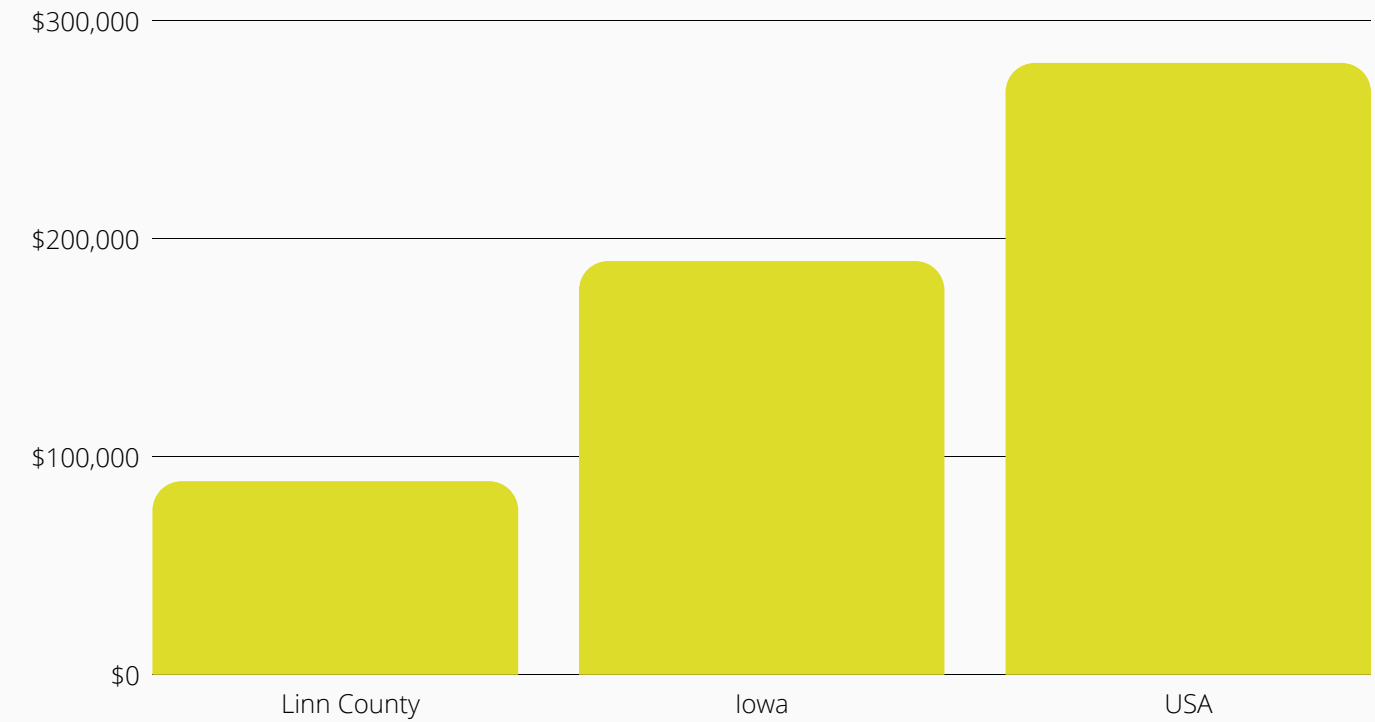
Currently this industry employs 5,400 Linn County Residents at an average annual wage of approximately \$88,000 dollars. This is much lower than the Iowa state and national averages, but again, considers all occupations within food sciences and processing.

Many cross-establishment synergies are already found within Cedar Rapids' corn and soy processing sectors. However, the industry could seek to diversify more, both in exploiting alternative, innovative uses for corn and soy products and in attracting additional types of food and ingredient manufacturers.

Likewise, while many of the existing industries have their own private research and development branches, there are opportunities for broader spectrum, entrepreneur-driven research and development, existing partnerships and collaborations.

\* A note regarding average wages – average wages are used due to an absence of most recently available median income data at all geographic scales. It is acknowledged that average wages are a relative measure and are skewed across all industries due to executive positions, respectively.

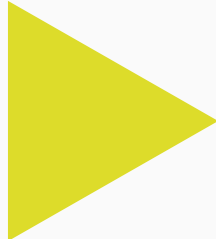
AVERAGE WAGES\* IN FS&P, 2019 ADJUSTED TO 2021



## INDUSTRY CRITERIA

- Skilled Professional Workforce
- Access to Higher Education
- Appropriate Regional Demographics
- Public Policy Support
- Low Utility and Wage Costs
- Industry Diversity
- Existing Industry Cluster
- Appropriate Logistics Infrastructure
- Existing Industry Research Presence
- Access to Agriculture

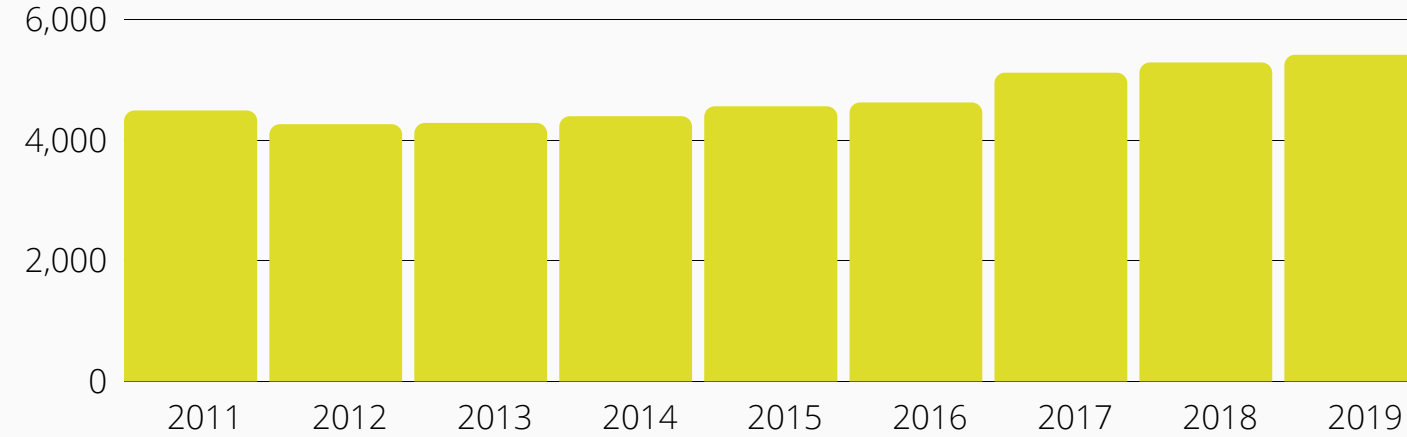
Sources: AE, BLS, CBRE



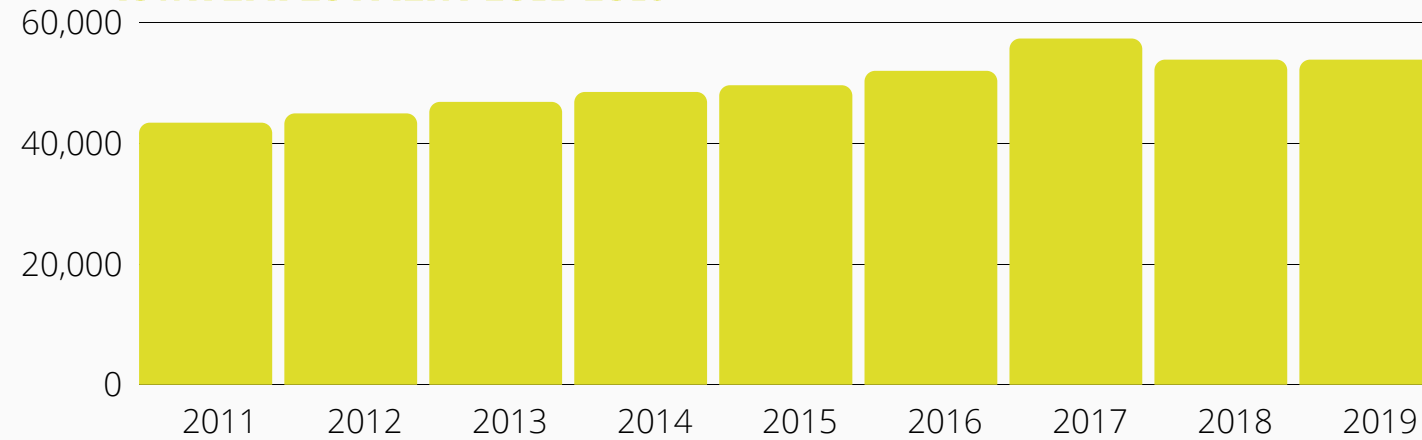
# FOOD SCIENCES AND PROCESSING

## FOOD SCIENCES AND PROCESSING EMPLOYMENT

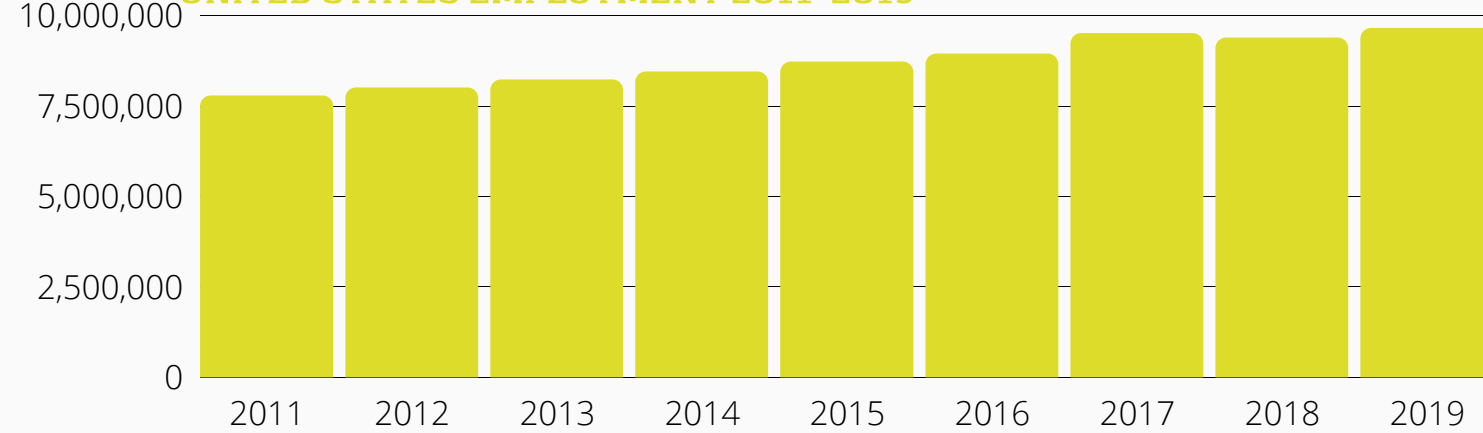
LINN COUNTY EMPLOYMENT 2011-2019



IOWA EMPLOYMENT 2011-2019



UNITED STATES EMPLOYMENT 2011-2019

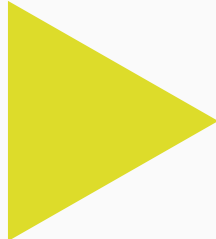


### LOCAL EMPLOYMENT TRENDS

FSP employment in Linn County has grown tremendously at nearly 21%. This industry's decade average employment is at 4,715 and its lowest level of employment was in 2012, with consistent growth since then.

### REGIONAL AND NATIONAL EMPLOYMENT TRENDS

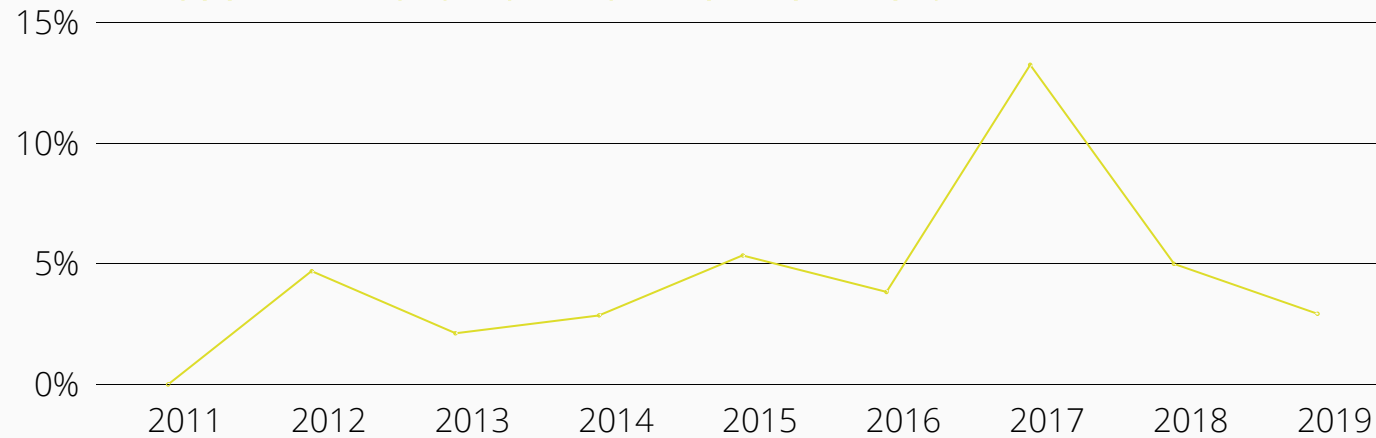
Regionally, FSP growth in Iowa has been positive since 2011, with a 24% increase, the same as growth in the United States. Cedar Rapids' already strong starting position within FSP suggests that it continues to be a strong sector for the economy. This indicates strong industry growth potential that Cedar Rapids' can utilize as part of its economic revitalization plan.



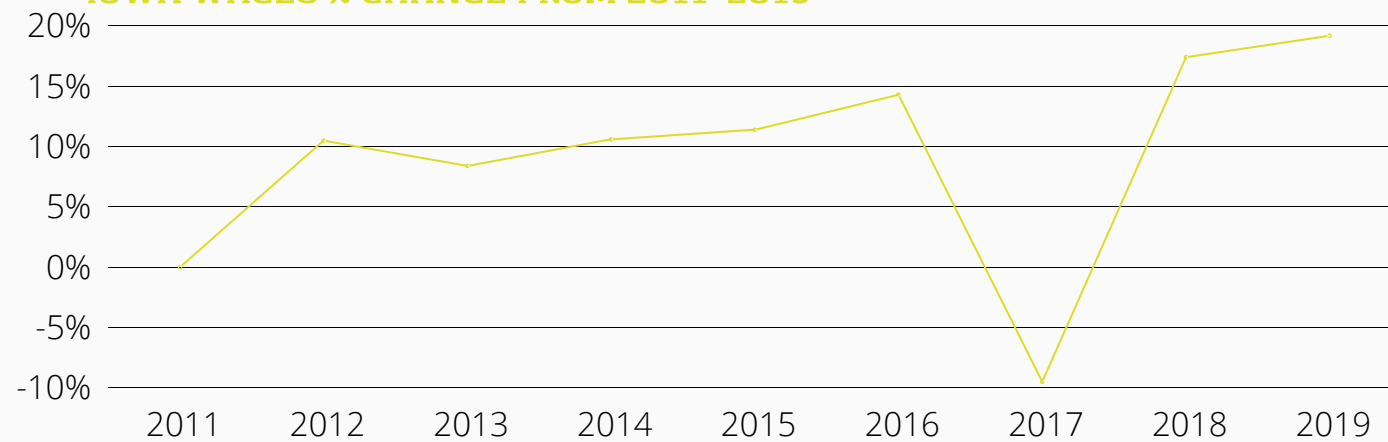
# FOOD SCIENCES AND PROCESSING

## FOOD SCIENCES AND PROCESSING WAGES AND PAY

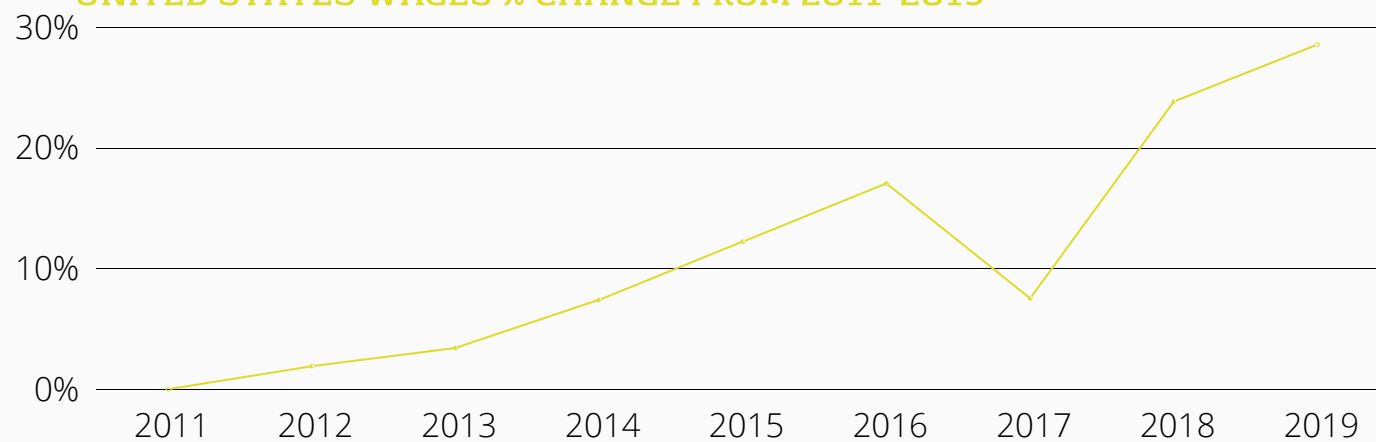
LINN COUNTY WAGES % CHANGE FROM 2011-2019



IOWA WAGES % CHANGE FROM 2011-2019



UNITED STATES WAGES % CHANGE FROM 2011-2019



\*There is not one singular event that can be attributed for the drop in 2017

### LOCAL WAGE TRENDS

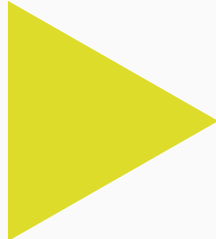
In Linn County, wages have increased 3% since 2011. Comparatively, Linn County's wages are lower than those of Iowa and the United States. The concentration of workers in Linn County appears to focus on those below the executive or corporate levels, which increase wages in Iowa and nationally.

### REGIONAL AND NATIONAL WAGE TRENDS

Wages in Food Sciences and Processing have increased nearly 20% from 2011 to 2019 for Iowans. Across the United States, wages have increased nearly 30%. Both Iowa and the United States experienced a drop in wages in 2017, but have recovered since. Linn County did not experience such a drop in 2017, suggesting a certain degree of wage resiliency in Linn County.

### LINN COUNTY MEDIAN WAGE

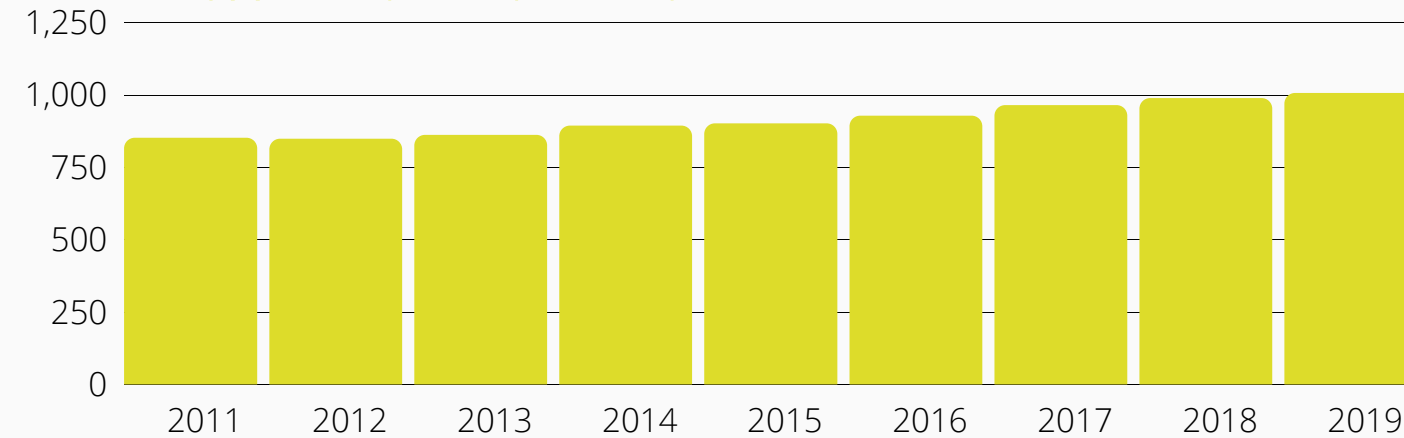
\$47,190



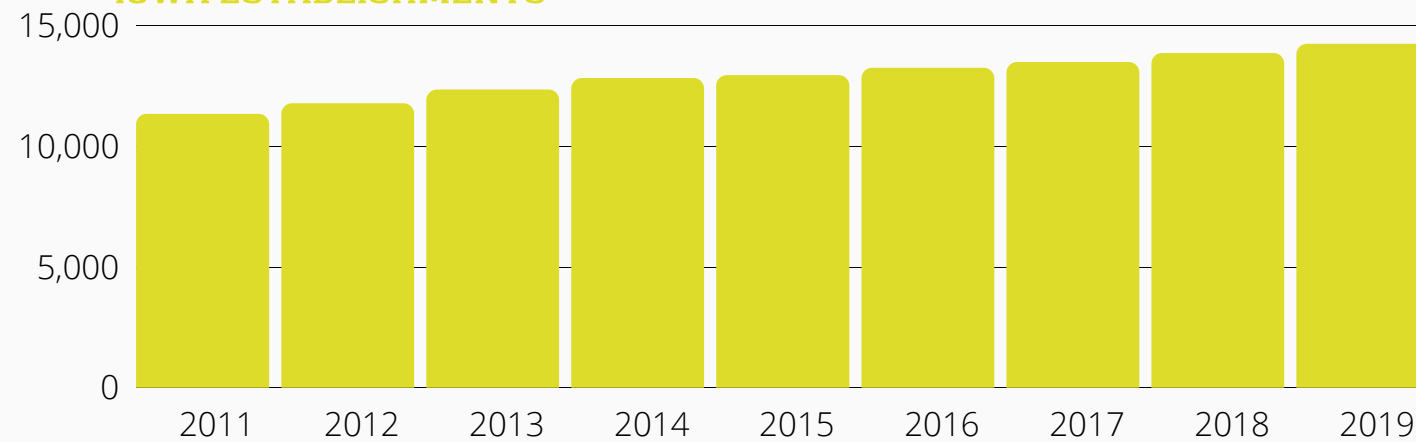
# FOOD SCIENCES AND PROCESSING

## FOOD SCIENCES AND PROCESSING ESTABLISHMENTS

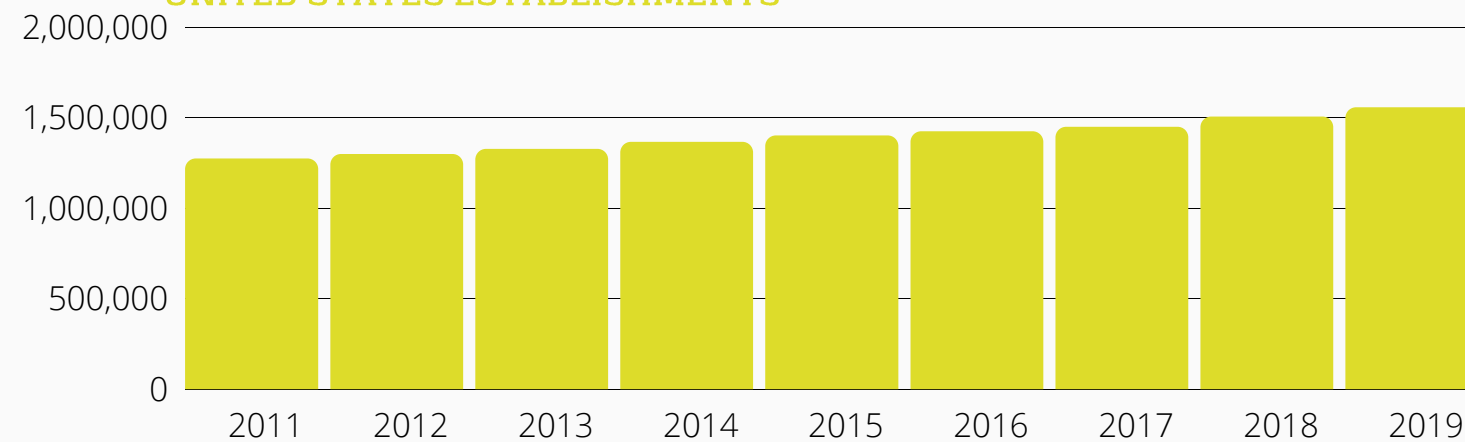
LINN COUNTY ESTABLISHMENTS



IOWA ESTABLISHMENTS



UNITED STATES ESTABLISHMENTS



### LOCAL ESTABLISHMENT TRENDS

From 2011 to 2019, Linn County saw an 18% increase in the number of Food Science and Processing establishments. Collectively, the number of jobs, the wages, and the number of establishments in FSP have increased in Linn County. The county has and continues to be a reliable and growing sector, in an industry that is expected to grow nationally and internationally as food demands and innovations within food sciences increase.

### REGIONAL AND NATIONAL ESTABLISHMENT TRENDS

The number of FSP establishments increased 22% in Iowa, while the number of FSP establishments increased 25% nationally. This growth reflects increasing national and international demand for FSP products.



# TOP FSP OCCUPATIONS IN LINN COUNTY

Occupation	Employees	Salary	Education Needed
Packaging and Filling Machine Operators and Tenders	503	\$89,469	High School Diploma or Equivalent
Food Batchmakers	287	\$84,212	High School Diploma or Equivalent
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	196	\$98,219	High School Diploma or Equivalent
First-Line Supervisors of Production and Operating Workers	181	\$144,459	High School Diploma or Equivalent
Laborers and Freight, Stock, and Material Movers, Hand	162	\$83,906	High School Diploma or Equivalent
Industrial Machinery Mechanics	145	\$133,076	High School Diploma or Equivalent
Industrial Truck and Tractor Operators	115	\$95,602	High School Diploma or Equivalent
Mixing and Blending Machine Setters, Operators, and Tenders	105	\$96,979	High School Diploma or Equivalent
Inspectors, Testers, Sorters, Samplers, and Weighers	101	\$98,056	High School Diploma or Equivalent
Maintenance and Repair Workers, General	97	\$108,779	High School Diploma or Equivalent

# RANKING OF CEDAR RAPIDS FOOD SCIENCES AND PROCESSING

RANKING OF CEDAR RAPIDS FOOD PROCESSING SCIENCES AND SAFETY INDUSTRY					
Assessment Rationale	FPS Variable	Leading	Strong	Average	Weak
<ul style="list-style-type: none"> <li>Employment has grown since 2012, in line with regional and national trends over the last decade</li> </ul>	Employment Trends			●	
<ul style="list-style-type: none"> <li>Wages have increased, but remain below state and national levels</li> <li>Wage growth has been slow relative to Iowa and the U.S.</li> </ul>	Wage Trends				●
<ul style="list-style-type: none"> <li>In keeping with state and national trends, establishment numbers have increased significantly since 2011</li> </ul>	Business Establishments		●		
<ul style="list-style-type: none"> <li>Appropriate educational and job training establishments present to provide a skilled industry workforce</li> </ul>	Employee Skill Set			●	
	Overall FSP Industry		●		

# TARGET CLUSTERS IN FOOD SCIENCES AND PROCESSING

## PERISHABLE FOOD PRODUCTS

This niche consists of companies involved in the manufacturing of various perishable, prepared food products, such as salads, sandwiches, prepared meals, fresh pizza, pasta, and peeled or cut vegetables. This segment of food processing is high growth but has fairly low overall wages. Operations typically have minimal environmental impact. Perishables are the highest growing segment of food processing and growth rates are forecast to slow only minimally.

## PACKAGED FOOD PRODUCTS

Packaged food products are products that are sold through retail establishments in a consumption ready fashion. A wide array of snack foods is included in this industry. Similar to other segments of food processing we recommend targeting, packaged food products, as growth trends and wage rates are good. The industry is transitioning away from high cost operating areas and locating in the South and West in large numbers.

## FOOD PROCESSING (ORGANIC)

Food production is instrumental to our very existence. In recent years, there has been increased attention placed on organic food processing. This specific food processing is based on a system of farming that maintains and replenishes soil fertility without the use of toxic and persistent pesticides and fertilizers. Organic foods are typically processed without artificial ingredients, preservatives, or irradiation to maintain the integrity of the food. Organic food products maintain the highest operating margins in the food processing industry. Companies are very concerned with image and operate accordingly.

## AGBIOPRODUCTS

Food Production now uses biotechnology to modify agricultural feedstocks to be more productive. This could be an enhancement of crop productivity, resistance to disease, or a genetic modification for added human health benefits. Nutraceuticals is the use of food or agricultural inputs to provide health and medical benefits, including the prevention and treatment of disease. The agricultural and industrial bioscience markets comprise nearly 20% of total biotechnology employment.

# TARGET CLUSTERS IN FOOD SCIENCES AND PROCESSING

## WORKFORCE GROWTH CATALYSTS

Labor is a large component of the cost of production, and food producers generally seek locations with a low cost workforce. Food processors require a well-trained blue-collar workforce with small amounts of degreed engineers and food scientists.

## CURRENT WORKFORCE

Given the existing food processing and life science industry in Cedar Rapids, the workforce is well positioned for an easy transition to the target food science industry sectors. Food sciences and processing have the capability to work hand in hand with life sciences and would not require entirely new training. With a significant number of people employed in this sector in the area combined with the concentration of college graduates, advancing the food processing and food sciences industry should be relatively seamless.

## KEY CLUSTER OCCUPATIONS

- Slaughters and Meat Packers
- Cooling and Freezing Equipment Operators
- Food Batch Makers
- Meat, Poultry, and Fish Cutters and Trimmers
- Food Scientists and Technologists
- Agricultural and Food Scientists
- Agricultural Engineers
- Purchasing Agents
- Packers and Packagers
- Industrial Machinery Mechanics
- Agricultural Inspectors

**OFFICE USERS  
(ENTREPRENEURIALISM,  
FINANCE, INSURANCE,  
REAL ESTATE)**





# OFFICE USERS

## INDUSTRY OVERVIEW

Office Users encompasses entrepreneurialism, finance, insurance, and real estate.

Entrepreneurialism includes those business and professional services that are, in the broadest sense, occupations geared toward providing services in the business world, including, but not limited to, management, administration, legal, accounting, and architecture services.

The entrepreneurialism ecosystem is vital for a dynamic and growing economy. Not only does it create new business, but it also contributes to the success of existing businesses, small and large, across the local economy.

- These businesses offer entry-level positions to young professionals just entering the workforce.
- Cedar Rapids is already home to a diverse and growing cluster of such establishments and there is community support for continued growth.
- Such businesses can help to change the image from an older, more established community, to one that is supportive of young people taking chances.

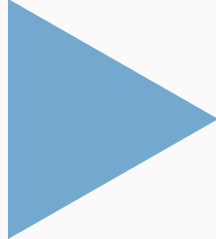
The other large part of the Office Users group includes Finance, Insurance, and Real Estate (FIRE). This industry includes money and investments, banking, credit, and securities investments, underwriting, issuance, and fulfillment of insurance policies, and the buying and selling of commercial and residential buildings or land.

- As with entrepreneurialism, FIRE continues to be appealing to young professionals as such careers provide opportunities for advancement.
- Cedar Rapids already supports a large number of FIRE establishments, employing thousands, and it represents an important part of the current and future Cedar Rapids' economies.
- Historically, such firms concentrate in downtowns and provide opportunities for downtown revitalization.

- Young Professionals
- Creative
- Business Retention
- Entrepreneur Friendly
- Downtown Redevelopment

## LINN COUNTY MEDIAN WAGE

\$73,060



# OFFICE USERS

## A BROADER PERSPECTIVE ON OFFICE USERS

Professional and Business Services is dominant part of the U.S. economy. This industry includes careers from engineering to telemarketing, and so many more. This industry also helps to determine a business' global competitiveness. The most successful businesses in this realm are those that are able to adapt to quickly changing technologies. As such, these businesses require high-skill jobs and attract high-skill talent.

As the US continues to transition its economy with greater emphasis on professional services, more opportunities will emerge. As manufacturing endeavors in the US increase their technological capacities, there will be increased opportunities for cross-pollination between the two industries.

Internationally, countries transitioning from underdeveloped to developed status are investing heavily in these industries. Likewise, FIRE industries have proliferated throughout the world due to increasing access to the Internet. Fintech may allow new players to enter the FIRE market. Digital currencies in their current state, without regulation, have not come to dominant the landscape. There is potential if states back digital currencies and can be regulated.

Regardless of digital currencies, the financial world will continue to be a vital component for domestic and international development. This is especially true for economies transitioning from resource extraction to more sophisticated production and manufacturing.

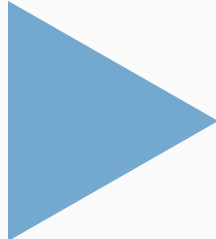
## US INDUSTRY CONCENTRATION

New York, NY
Los Angeles, CA
San Francisco, CA
Salt Lake City, UT

## GLOBAL INDUSTRY CLUSTERS

US
China
India
United Kingdom

Sources: AE, BLS, CBRE



# OFFICE USERS

## OFFICE USERS CHARACTERISTICS

While it is unlikely that Cedar Rapids will attract major professional and business firms, it can champion an entrepreneur-friendly business environment that makes it possible for start-ups and smaller firms to quickly establish themselves as major local and regional players within the industry. Cedar Rapids is quite fortunate to have government and economic development organization support. Its relative proximity to major universities, and a stockpile of available office space presents the opportunity to increase entrepreneurialism and FIRE attraction.

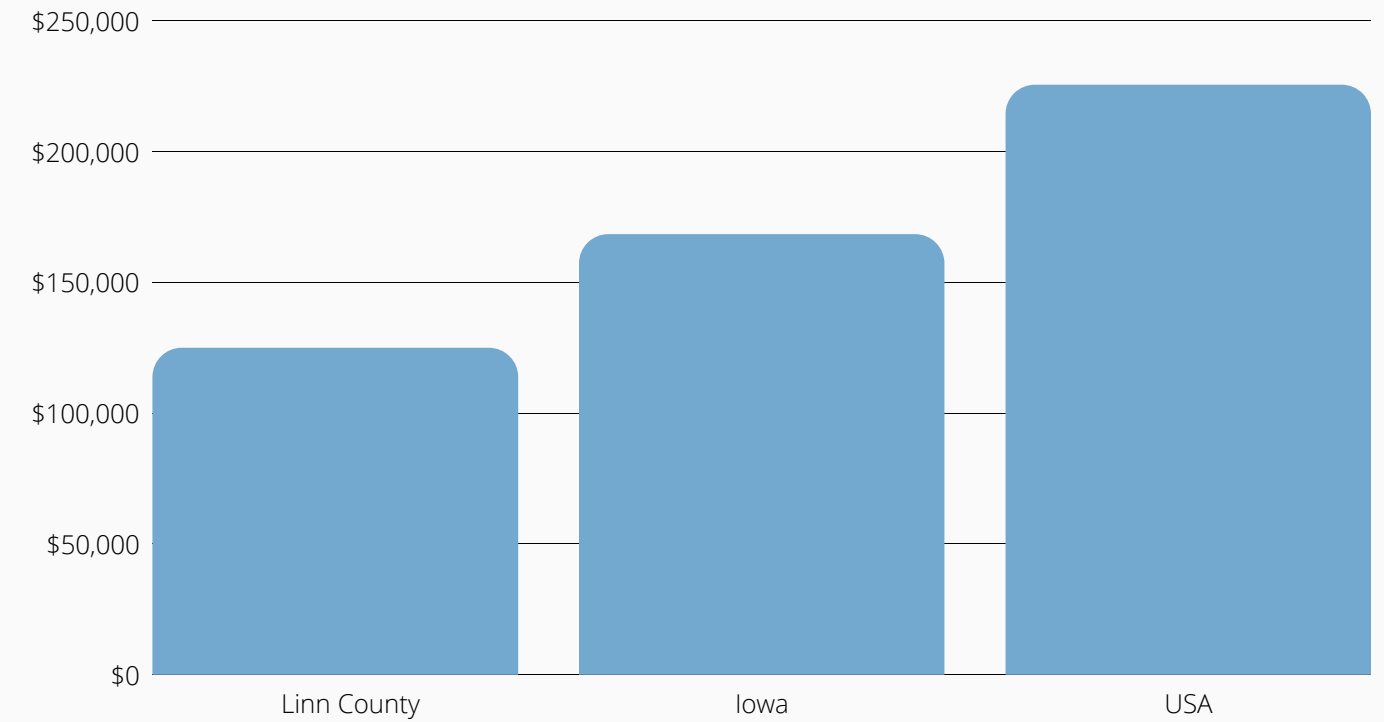
Work from home (WFH) trends are slowing and many businesses are continuing to look for cost reducing and production efficiency maneuvers. One such maneuver is expanding or relocating out of big cities where costs of operations are exceedingly high.

Cedar Rapids' lower labor and utility costs, coupled with its available real estate and close proximity to larger markets, make it an appealing location for expansion or relocation for cost-conscious businesses. Wages in Linn County have grown by 2.5% since 2011 but are still considerably lower than in Iowa and the United States.

Cedar Rapids possesses cost advantages that will be appealing to office users broadly speaking. However, business attraction in this area may face obstacles around the lack of readily available skilled young professionals. On the corporate side, the relatively small size of the airport will limit interest.

\* A note regarding average wages – average wages are used due to an absence of most recently available median income data at all geographic scales. It is acknowledged that average wages are a relative measure and are skewed across all industries due to executive positions, respectively.

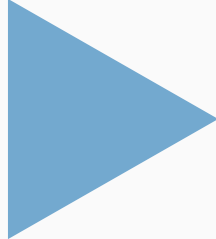
AVERAGE WAGES\* IN OFFICE USERS, 2019 ADJUSTED TO 2021



## INDUSTRY CRITERIA

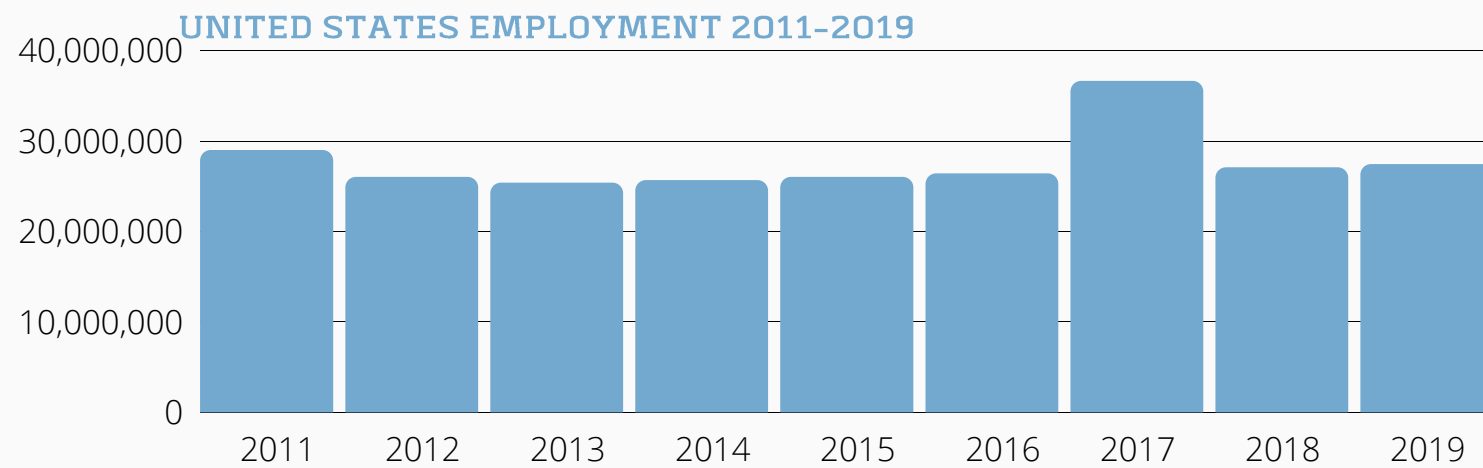
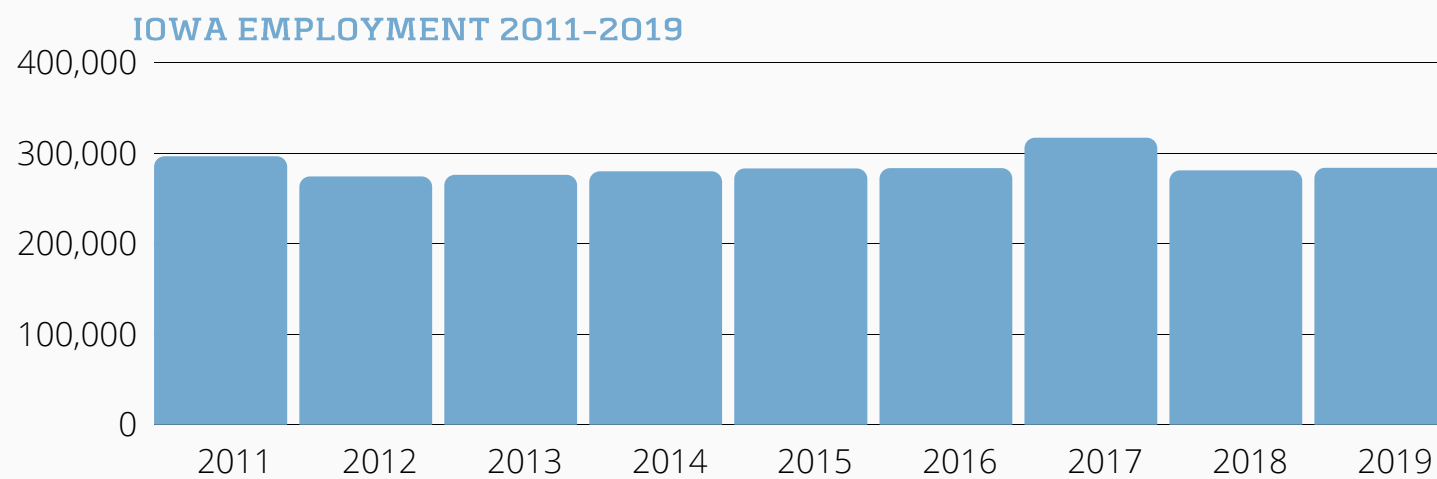
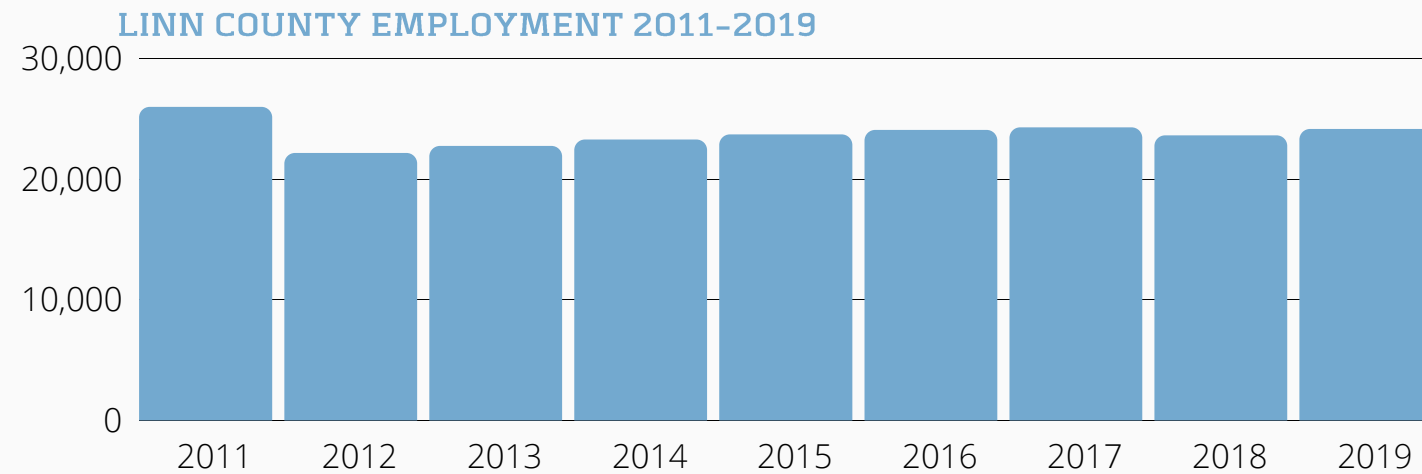
- Skilled Professional Work Force
- Access to Broader Markets
- Hub Airport Access
- Low Risk of Business Interruption
- Site Availability
- Availability of Inexpensive Land
- Low Utility and Labor Cost
- Communications and Technology Infrastructure
- Appropriate Regional Demographics
- Quality and Scope of Available Infrastructure

Sources: AE, BLS, CBRE



# OFFICE USERS

## OFFICE USERS EMPLOYMENT

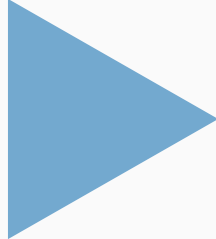


### LOCAL EMPLOYMENT TRENDS

From 2011 to 2019, Linn County has decreased 7% in its office users employment. However, beyond the dip from 2011 to 2012, there has been a steady increase in jobs added back to this industry (9% increase since 2012).

### REGIONAL AND NATIONAL EMPLOYMENT TRENDS

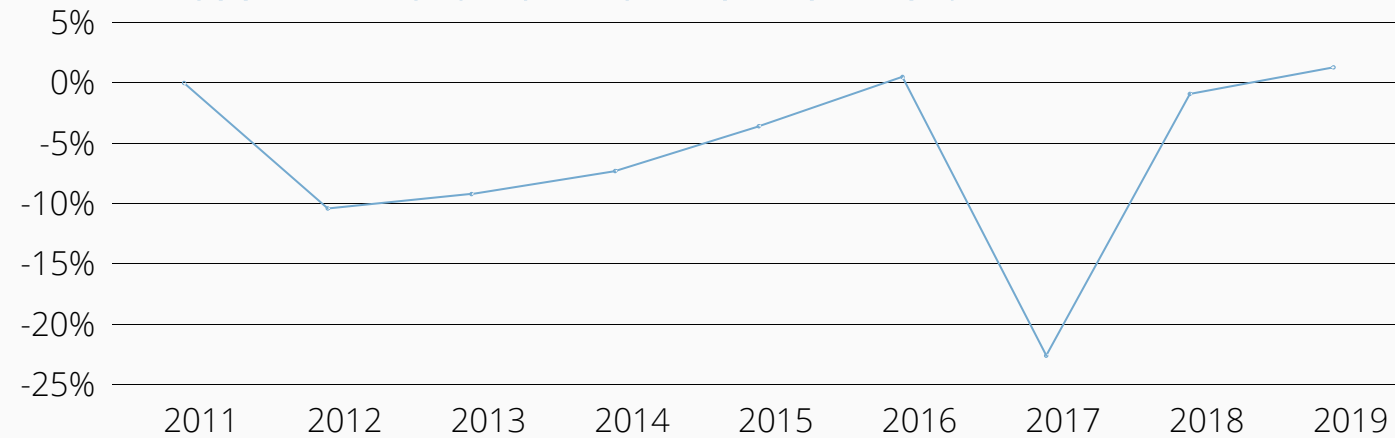
From 2011 to 2019, Linn County saw a similar employment trend as Linn County. Overall, it has decreased 4%, but since 2012 it has increased by 3.5%, recovering many of those jobs. The United States has grown its office users by nearly 7% since 2011, but also drops from 2011 to 2012 and from 2017 to 2018. Obviously, COVID restrictions forced office users to re-strategize and re-envision spaces to ensure that business did not come to a complete standstill. Working from home continues to be a part of American and global business culture, although there are growing calls to return to the traditional office structure.



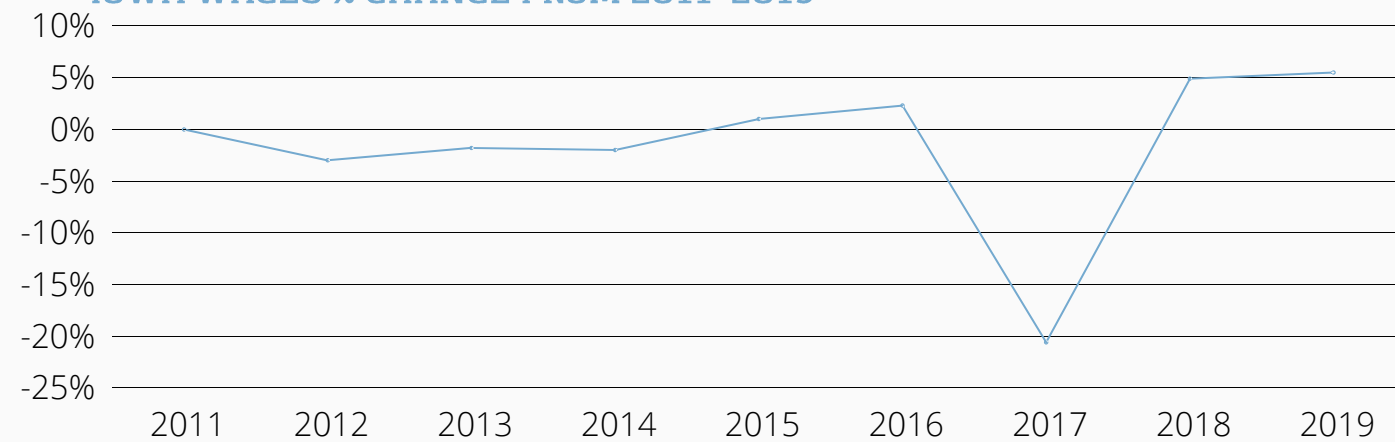
# OFFICE USERS

## OFFICE USERS WAGES AND PAY

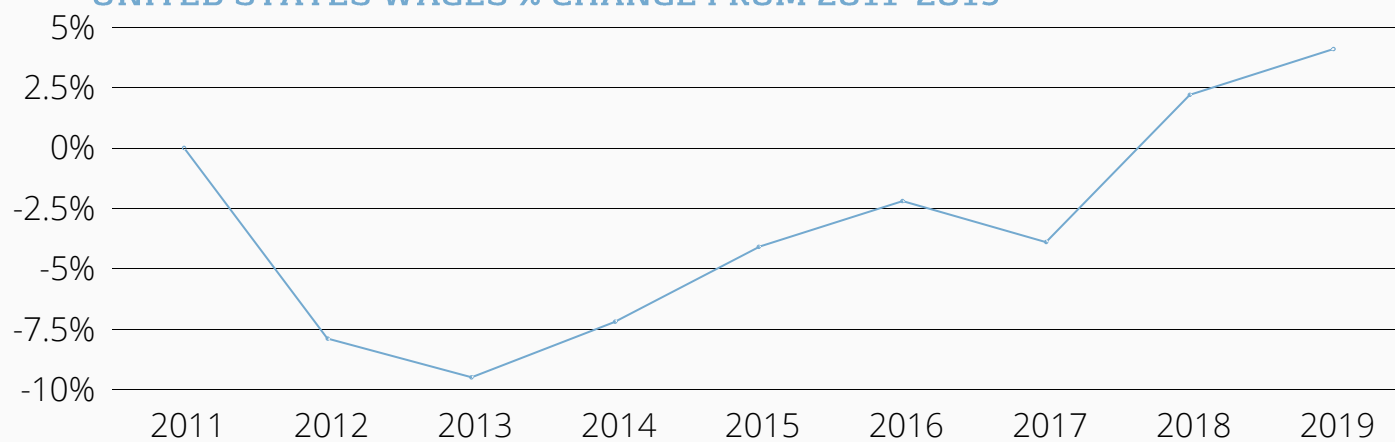
LINN COUNTY WAGES % CHANGE FROM 2011-2019



IOWA WAGES % CHANGE FROM 2011-2019



UNITED STATES WAGES % CHANGE FROM 2011-2019



\*There is not one singular event that can be attributed for the drop in 2017

### LOCAL WAGE TRENDS

Wages have increased by 1.3% since 2011 and have recovered since the dip in 2017. While lower than Iowa and the US averages, these are competitive wages given the relatively low cost of living in Linn County.

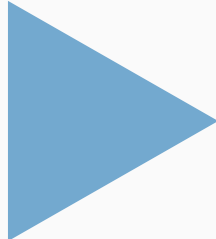
### REGIONAL AND NATIONAL WAGE TRENDS

Wages in Iowa and the United States have both increased approximately 5% since 2011. Both geographies have recovered wage drops since the dip in 2017.

## LINN COUNTY MEDIAN WAGE

\$73,060

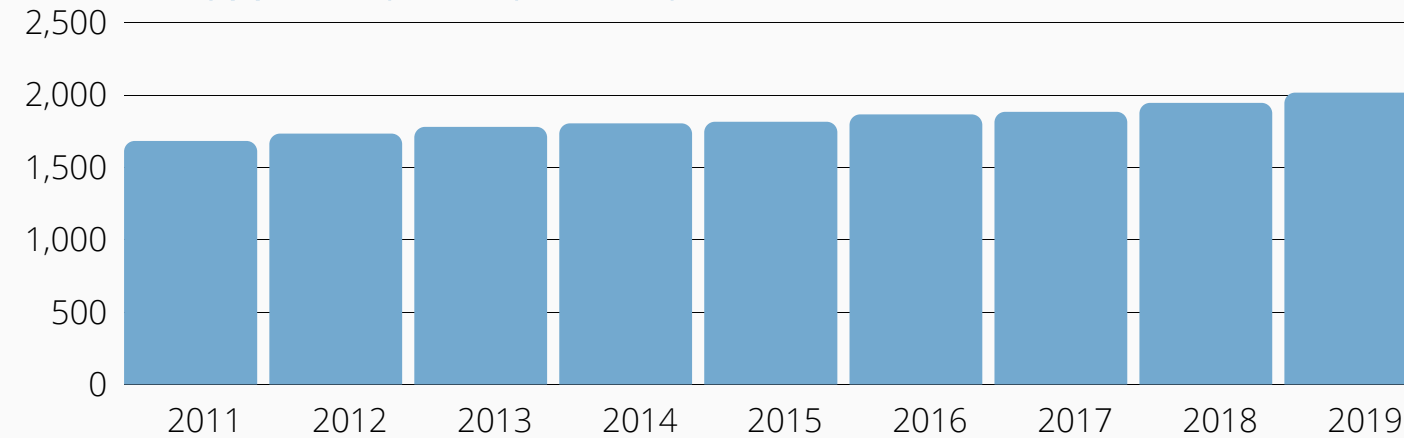




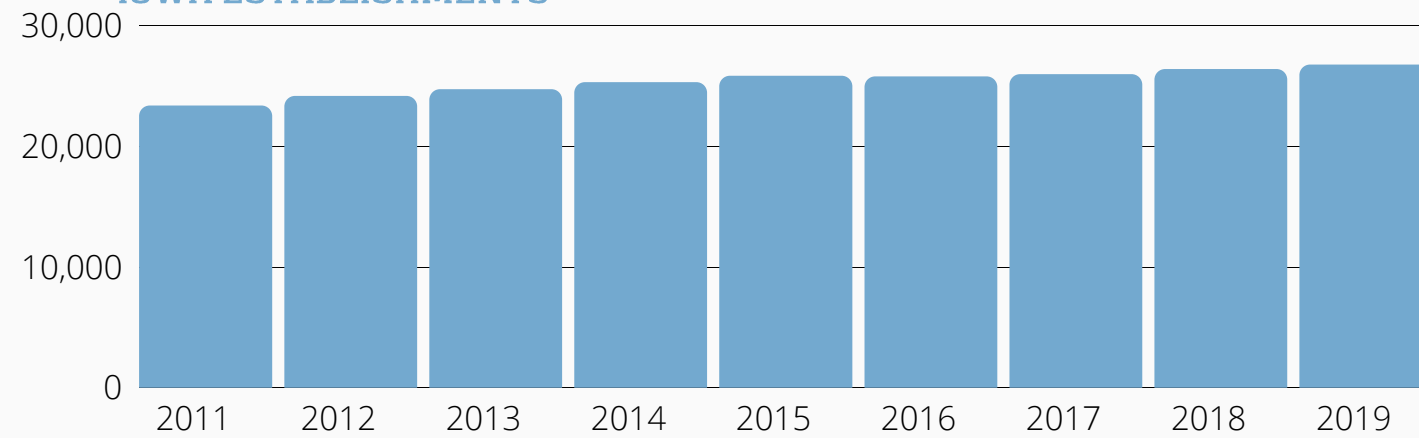
# OFFICE USERS

## OFFICE USERS ESTABLISHMENTS

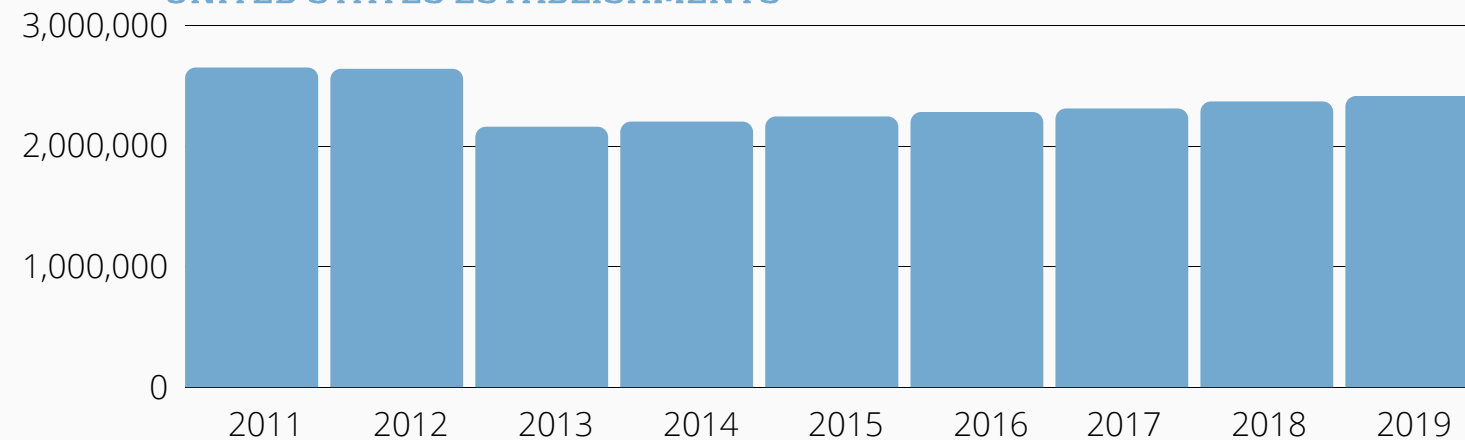
### LINN COUNTY ESTABLISHMENTS



### IOWA ESTABLISHMENTS



### UNITED STATES ESTABLISHMENTS

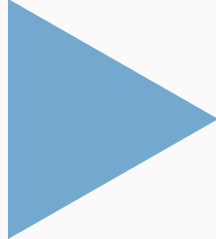


### LOCAL ESTABLISHMENT TRENDS

The number of establishments in Linn County has increased steadily since 2011 (at a rate of 19%), outpacing growth in Iowa and the United States. COVID has slowed this growth, but as with the rest of Iowa and the United States, the hybrid models of work will lead to an increase in establishments.

### REGIONAL AND NATIONAL ESTABLISHMENT TRENDS

The number of office user establishments in Iowa increased by 14.5% since 2011. Obviously, there are dips tied to COVID since 2020, but the overall non-pandemic trend was a positive increase in establishments. The United States experiences a drop from 2012 to 2013, but has been gaining back establishments since, at a rate of 11%. Overall, the number of establishments dropped nearly 9%, but was trending positively through 2019. The COVID years have stalled this growth, but with work from home models giving way to my more hybrid models, office use should continue to increase.



# TOP OFFICE USER OCCUPATIONS IN LINN COUNTY

Occupation	Employees	Salary	Education Needed
Customer Service Representatives	1,762	\$49,126	High School Diploma or Equivalent
Insurance Sales Agents	934	\$74,462	Bachelors Degree
Office Clerks, General	779	\$40,483	High School Diploma or Equivalent
General and Operations Managers	630	\$166,073	Bachelors Degree
Tellers	587	\$44,145	High School Diploma or Equivalent
Insurance Claims and Policy Processing Clerks	535	\$54,435	High School Diploma or Equivalent
Claims Adjusters, Examiners, and Investigators	522	\$93,340	Bachelors Degree
Bookkeeping, Accounting, and Auditing Clerks	424	\$57,917	High School Diploma or Equivalent
Securities, Commodities, and Financial Services Sales Agents	422	\$95,414	Bachelors Degree
Loan Officers	376	\$105,760	Bachelors Degree

Sources: AE, BLS, CBRE

# RANKING OF CEDAR RAPIDS OFFICE USERS

RANKING OF CEDAR RAPIDS OFFICE USERS' INDUSTRY					
Assessment Rationale	EBS Variable	Leading	Strong	Average	Weak
<ul style="list-style-type: none"> <li>Significant job growth since 2012, compared to steady growth for Iowa and U.S.</li> <li>Linn County is more resilient than Iowa and The United States</li> </ul>	Employment Trends				
<ul style="list-style-type: none"> <li>Wages fall below state and national averages</li> <li>Lower wages offset by lower cost of living and make region attractive to employers</li> </ul>	Wage Trends				
<ul style="list-style-type: none"> <li>Establishment numbers continue to match larger trends of growth in Iowa.</li> <li>Linn County is outpacing Iowa and The United States in number of establishments</li> </ul>	Business Establishments				
<ul style="list-style-type: none"> <li>Existing educational institutions and employers provide and attract appropriately skilled workers</li> <li>High turnover and employee retention issues</li> </ul>	Employee Skill Set				
	Overall Office Industry Industry				

# TARGET CLUSTERS IN OFFICE USERS

## SHARED SERVICES CENTER

These facilities are generally large scale corporate operations including a wide variety of integrated back-office operations. They typically include redundant large data centers for regional or headquarter operations, a high value add call center component typically entailing customer relationship management, advanced technical support, high dollar value sales, small to medium processing operations, and small to medium programming operations. These corporate campuses have excellent wages and long term prospects

## CRM CALL CENTERS

Strong competition for call centers is coming from offshore locales and is stunting domestic growth in the overall industry. However, call centers focused on customer relationship management (CRM), advanced technical support, or high dollar value sales are less affected by these changes and continue to locate new facilities in the U.S. These facilities are not subject to the same level of competitive pressure as low value-add call center operations. CRM is considered vital for high margin clients, and companies are concerned about potentially upsetting profitable relationships to save money. These operations are typically staffed by college-educated staff, many with further levels of certification. Cost savings realized from off shoring are inadequate given potential risks involved. As with high tech firms, facilities are typically white-collar operations with above average wages. This segment of the business services sector also has low barriers to entry and employment growth is beginning to rebound.

## DATA CENTERS

Data centers are operations that provide digital information storage for customers and corporate parents. They are composed of clusters of computers and network switching gear that allows efficient and highly reliable transfer of data. Excess capacity exists from the late 1990s build out, but many corporations have transitioned away from outsourcing data center management and are developing new centers. Data centers are high value operations, pay excellent wages, and are very low impact. These facilities are increasing in importance and many are developed with small software development operations. Data centers are low environmental impact facilities. Air emissions, water consumption, and wastewater discharge are low.

## BACK OFFICE FINANCIAL

Support staff in the business and financial services industry performs a variety of record-keeping duties. They track revenues coming into and leaving organizations as well as provide customer support. They provide payroll, procurement, and auditing services for their clients. The growing financial services and health care industries will require increasing levels of back-office support. Both industries will continue to move these support functions off-site or even outsource the operations to third party vendors.

# TARGET CLUSTERS IN OFFICE USERS

## WORKFORCE GROWTH CATALYSTS

Business and financial services require a wide range of worker demographics. Data processing centers need a high percentage of college-educated employees with specific IT industry skills, while lower end business services occupations require minimal educational attainment. Financial service support centers require workers with high school diplomas and employees with some specialized accounting knowledge. Many mutual funds and brokerage call centers require college degrees and specific industry certifications. Many companies seeking to lower their costs through back office services and business support services look to areas with high underemployment rates among younger demographics. Competitive wage rates are also very important.

## CURRENT WORKFORCE

Given the existing industry in Cedar Rapids and the entire state of Iowa, the workforce is well positioned for an easy transition to the target industry sectors. With a significant number of people employed in this sector in the area combined with the concentration of college graduates, training and transitioning jobs in this sector will be relatively easy,

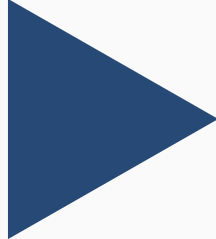
## KEY CLUSTER OCCUPATIONS

- Insurance Underwriters
- Insurance Claims Processing Clerks
- Securities and Financial Sales Representatives
- Claims Adjusters and Investigators
- Insurance Sales Agents
- Loan Interviewers and Clerks
- Tax Preparers
- Financial Advisors
- Loan Officers
- Credit Analysts
- Lawyers
- Title Examiners
- Financial Analysts
- Financial Managers



**MANUFACTURING  
(AEROSPACE, RENEWABLES,  
HYDROGEN)**





# MANUFACTURING

## INDUSTRY OVERVIEW

Manufacturing is a broad term with various interpretations. For this report, it is the manufacture, assembly, process or packing of any product that limits air, water, soil, and noise pollution. Basically, this type of manufacturing is a "clean" or "non-smokestack" industry. Some of the major industry sectors include: computer equipment, electronics, auto assembly, aerospace, biotech, machinery, pollution control equipment, medical equipment and instruments. Technology makes up most of light industry. Heavy manufacturing industries (steel, metal smelting, petroleum refining, etc.) are not included in this target definition.

As the US economy emerges from COVID and supply chain issues have been felt more acutely domestically, it has become more important than ever that the United States have the capacity to see production of critical components throughout each component's lifecycle. This is especially true in regards to the broad defense industry. Component parts of a highly sensitive nature require domestic production.

Beyond, traditional light manufacturing, there is a concerted effort in the United States to have responsivity to ESG (environmental, social, governance) issues. Companies are looking for ways to improve their environmental records. Opportunities exist for Cedar Rapids to encourage such business growth through recycling and upcycling industries.

- Young Professionals
- Creative
- Business Retention
- Entrepreneur Friendly
- Downtown Redevelopment

### LINN COUNTY MEDIAN WAGE

\$66,765



# MANUFACTURING

## A BROADER PERSPECTIVE ON MANUFACTURING

Light manufacturing is a major subset of manufacturing. Traditionally, manufacturing has been the cornerstone of economic development due to its high paying jobs, importation of money into the community and the multiplier effect or spin off of jobs to suppliers and services. While the manufacturing output (dollar value) in the United States has consistently grown over the last half-century, manufacturing jobs have been in steady decline due to improvements in manufacturing technologies and processes.

From a domestic perspective, some economic developers are hesitant to pursue manufacturing, citing overall manufacturing job declines. Entire industries are moving their labor-intensive operations overseas, leaving traditional manufacturing communities in difficult positions. However, given the nature of Cedar Rapids' manufacturing in aerospace, these concerns are subdued. Technology also appears to be a bigger job consumer than jobs moving overseas.

The recent supply chain issues in regards to the semiconductor industry has seen a massive investment from the federal level down to ensure that that particular supply chain is captured domestically. This provides Cedar Rapids an opportunity to grow its aerospace manufacturing.

Separately, research into hydrogen fuels is increasing. In recent years, there have been significant advancements and specializations within the hydrogen industry. Green hydrogen is the result of renewable sources such as wind, solar, or water. Blue hydrogen is produced from natural gas and incorporates carbon capture principles. If carbon capture is not part of that aforementioned process, it is grey hydrogen. Pink hydrogen is generated from electrolysis using nuclear energy. There are additional colors of hydrogen, but the biggest takeaway is that this industry can become carbon neutral and may become a next generation fuel source for a wide variety of vehicle types (airplanes, ships, cars, etc.).

Beyond this application, there are also ongoing efforts to turn landfill waste into usable hydrogen fuels. This type of opportunity turns an end waste product into a new type of raw material with second-life economic value.

## US INDUSTRY CLUSTERS

Houston, TX

New York, NY

Chicago, IL

St. Louis, MO

## GLOBAL INDUSTRY CLUSTERS

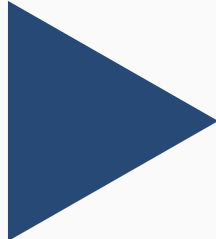
US

China

India

Brazil





# MANUFACTURING

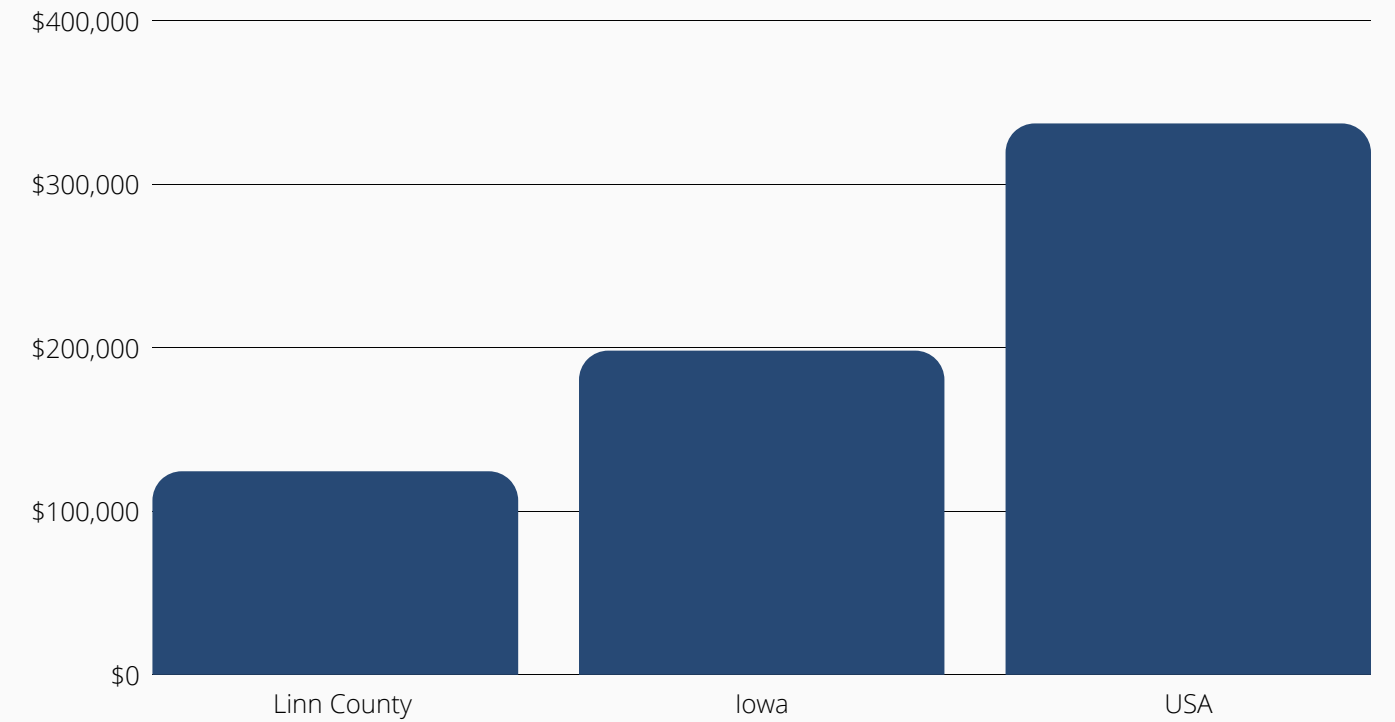
## MANUFACTURING CHARACTERISTICS

Cedar Rapids is positioned strategically to serve as a manufacturing center in the Midwest and the Great Plains. It's presence on the I-380 corridor and proximity to I-80 provide access to major markets in all directions. Cedar Rapids also serves as a major rail hub which can quickly serve several major existing manufacturing hubs, including Chicago and St. Louis. Cedar Rapids also features one resource advantage that cannot be produced easily: land.

Linn County manufacturing establishments currently employ over 29,100 people. The average wage for a manufacturing employee in Linn County is well below both the state and national averages. The lower labor costs will be attractive to employers who are looking to relocate or expand their operations. However, the average wage is still a very appealing wage to live comfortably in a county such as Linn County because of the relatively low cost of living.

\* A note regarding average wages – average wages are used due to an absence of most recently available median income data at all geographic scales. It is acknowledged that average wages are a relative measure and are skewed across all industries due to executive positions, respectively.

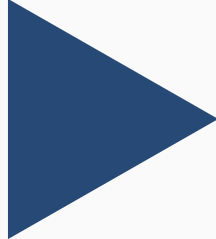
AVERAGE WAGES\* IN MANUFACTURING, 2019 ADJUSTED TO 2021



## INDUSTRY CRITERIA

- Access/Proximity to Interstate
- Rail Access to Major Markets
- Hub Airport Access
- Intermodal Transport Infrastructure
- Proximity to Major Markets
- Availability of Inexpensive Land
- Low Utility and Labor Cost
- Public Policy Support
- Appropriate Regional Demographics
- Skilled Professional Workforce

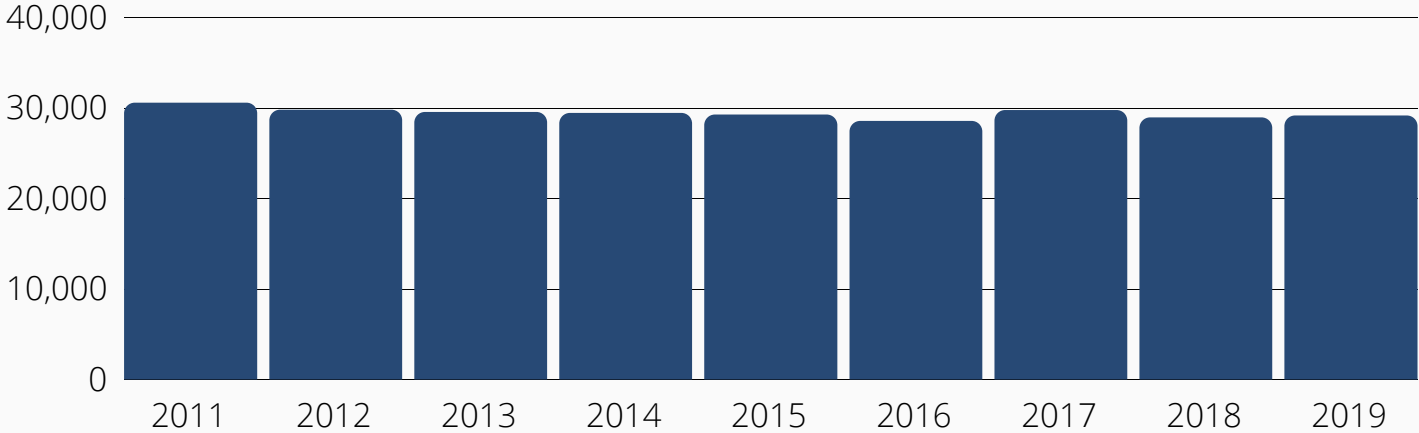
Sources: AE, BLS, CBRE



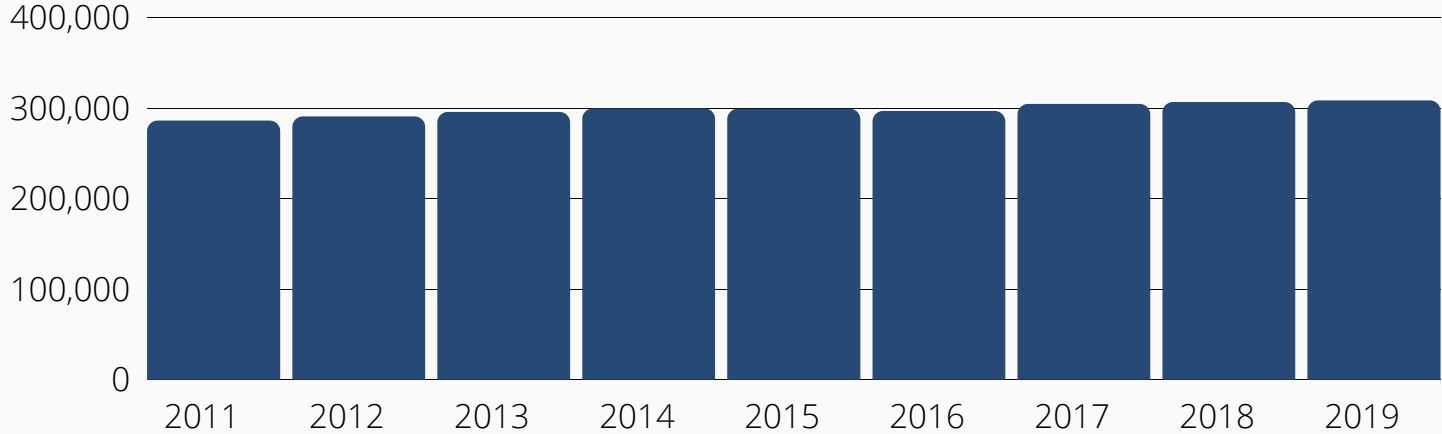
# MANUFACTURING

## MANUFACTURING EMPLOYMENT

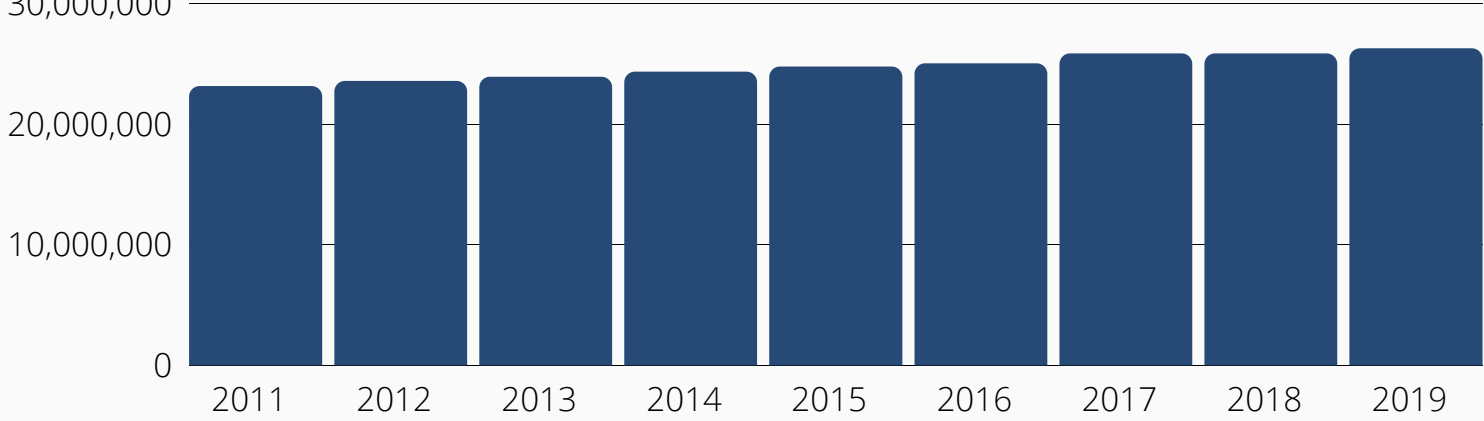
LINN COUNTY EMPLOYMENT 2011-2019



IOWA EMPLOYMENT 2011-2019



UNITED STATES EMPLOYMENT 2011-2019



### LOCAL EMPLOYMENT TRENDS

Manufacturing employment has decreased by 4% since 2011, however, opportunities remain to increase employment in this industry, especially considering the overlapping synergies possible within logistics and warehousing, life sciences, and food sciences and processing.

### REGIONAL AND NATIONAL EMPLOYMENT TRENDS

Iowa's manufacturing employment has grown by nearly 8% since 2011 while national manufacturing employment has grown 13.5%. COVID has slowed some growth since 2020, and there continue to be technology-related enhancements reducing the number of manufacturing jobs, yet there stands to be increased manufacturing jobs as America commits to domesticating sensitive supply chains.

Sources: AE, BLS, CBRE

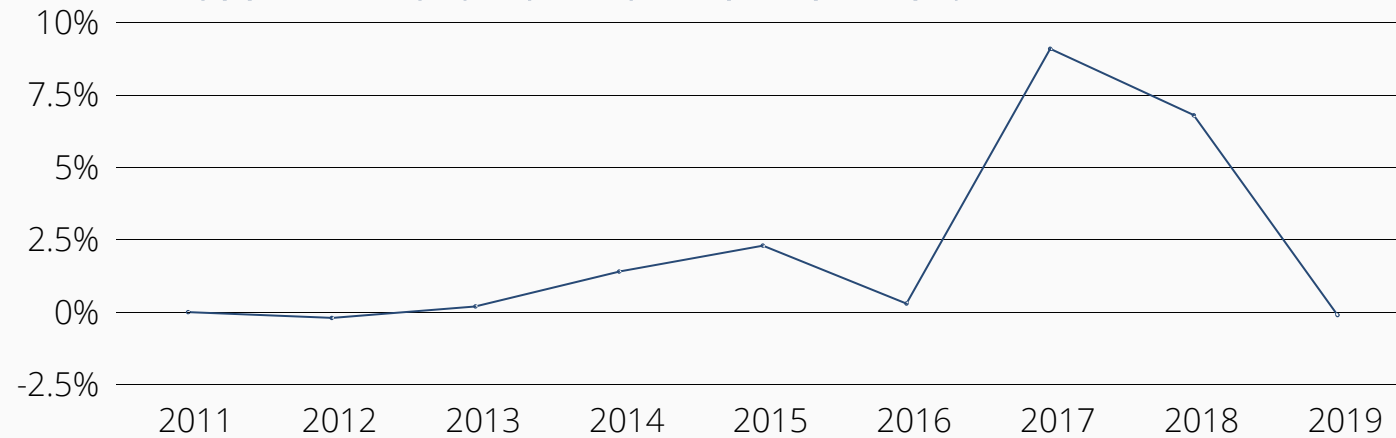




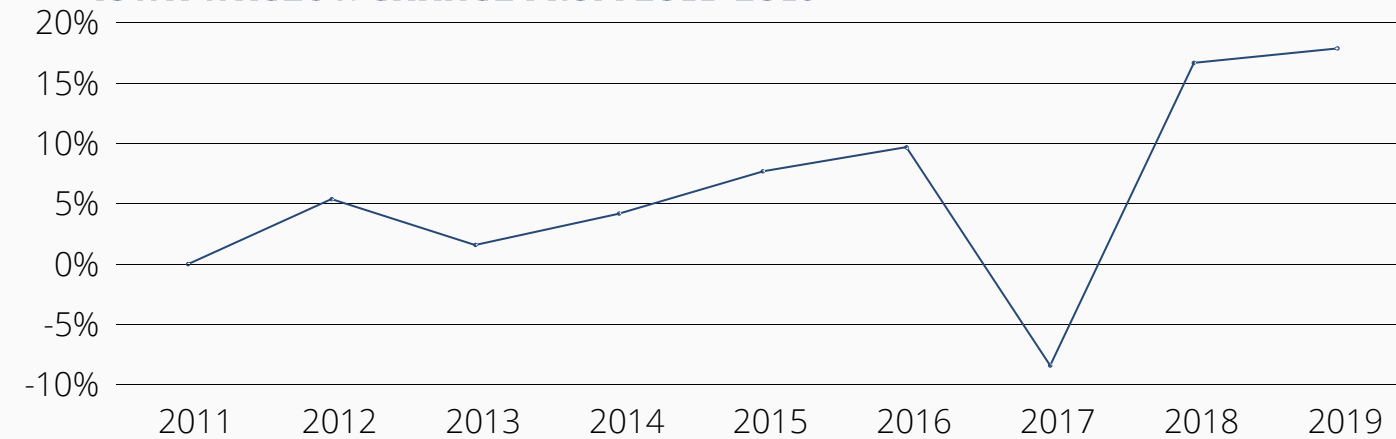
# MANUFACTURING

## MANUFACTURING WAGES AND PAY

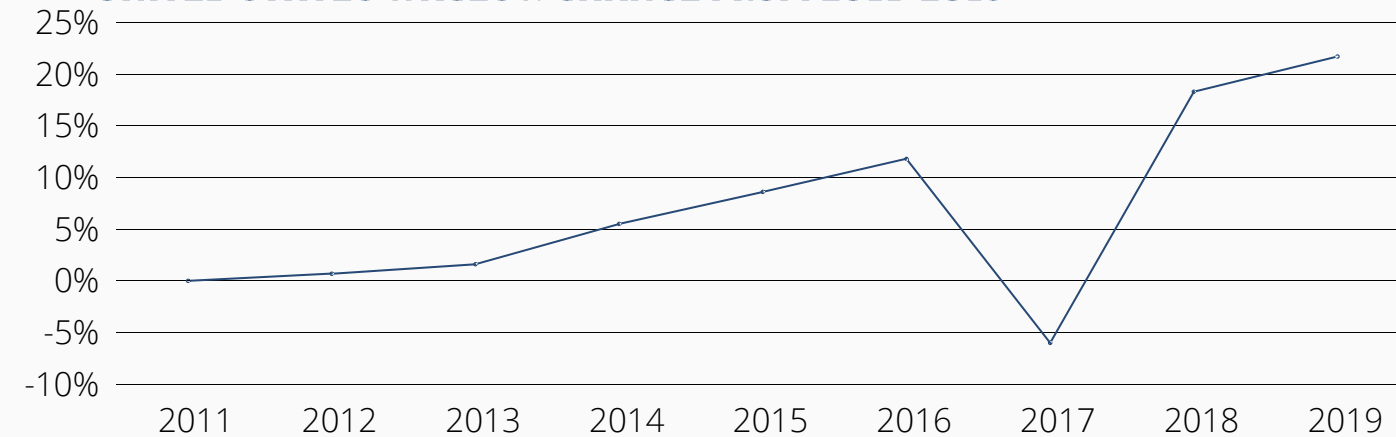
LINN COUNTY WAGES % CHANGE FROM 2011-2019



IOWA WAGES % CHANGE FROM 2011-2019



UNITED STATES WAGES % CHANGE FROM 2011-2019



\*There is not one singular event that can be attributed for the drop in 2017

### LOCAL WAGE TRENDS

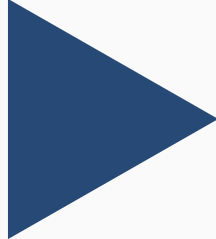
Manufacturing wages have decreased and fallen back to the original percent since 2011. Given the low cost of living in Linn County, these wages are value adds for the region, however, compared to Iowa and the United States, the wages are significantly lower.

### REGIONAL AND NATIONAL WAGE TRENDS

Iowa's manufacturing wages have increased 18% since 2011 and are significantly better than wages in Linn County, yet are still lower than national wages. US manufacturing wages grew 22% since 2011. Both Iowa and the United States overcame sharp wage dips in 2017.

## LINN COUNTY MEDIAN WAGE

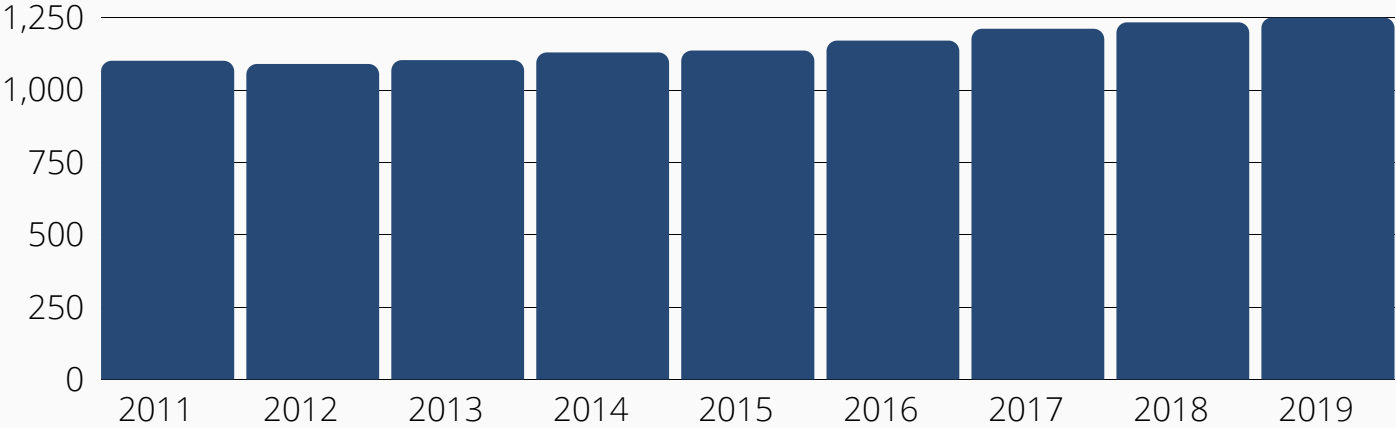
\$66,765



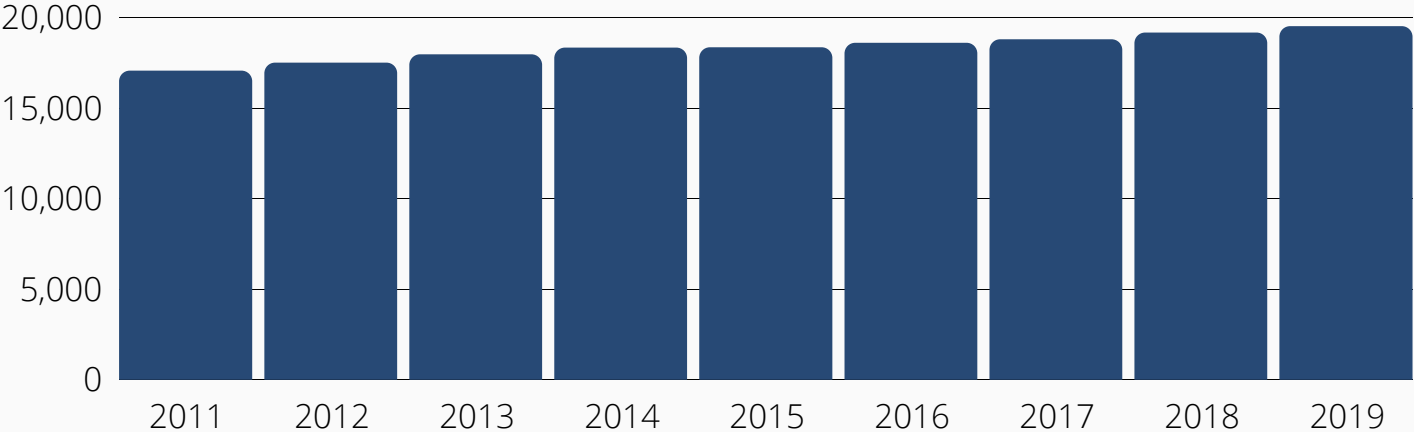
# MANUFACTURING

## MANUFACTURING ESTABLISHMENTS

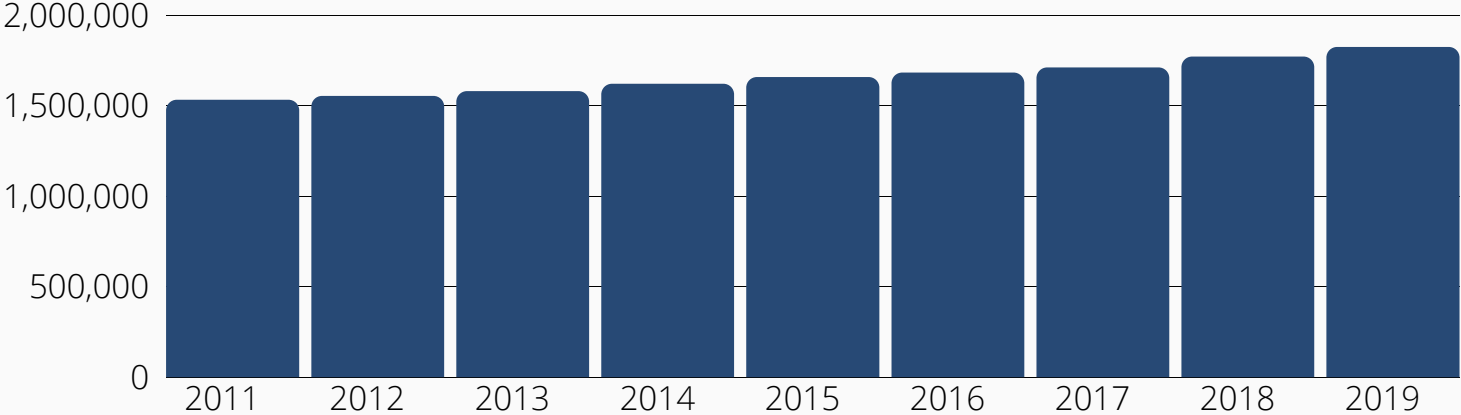
LINN COUNTY ESTABLISHMENTS



IOWA ESTABLISHMENTS



UNITED STATES ESTABLISHMENTS



### LOCAL ESTABLISHMENT TRENDS

The number of manufacturing establishments in Linn County has increased over 13% since 2011. In fact, the number of manufacturing establishments increased every single year in Linn County from 2011 to 2019.

### REGIONAL AND NATIONAL ESTABLISHMENT TRENDS

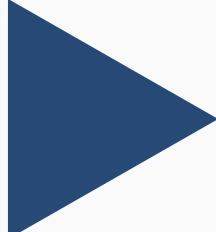
The number of manufacturing establishments in Iowa grew by 14%. Nationally, the number of manufacturing establishments grew by 19%. While Linn County trails these growth percentages, all are growing positively and suggest a vibrant industry moving forward.

Sources: AE, BLS, CBRE

# TOP MANUFACTURING OCCUPATIONS IN LINN COUNTY

Occupation	Employees	Salary	Education Needed
Software Developers and Software Quality Assurance Analysts and Testers	1,571	\$149,586	Bachelors Degree
Electrical, Electronic, and Electromechanical Assemblers	1,128	\$59,765	High School Diploma or Equivalent
Miscellaneous Assemblers and Fabricators	930	\$60,571	High School Diploma or Equivalent
General and Operations Managers	676	\$221,543	Bachelors Degree
First-Line Supervisors of Production and Operating Workers	653	\$127,607	High School Diploma or Equivalent
Packaging and Filling Machine Operators and Tenders	587	\$85,121	High School Diploma or Equivalent
Inspectors, Testers, Sorters, Samplers, and Weighers	551	\$77,206	High School Diploma or Equivalent
Industrial Engineers	494	\$150,532	Bachelors Degree
Project Management Specialists and Business Operations Specialists	450	\$127,782	Bachelors Degree
Mechanical Engineers	443	\$144,341	Bachelors Degree

Sources: AE, BLS, CBRE



# RANKING OF CEDAR RAPIDS MANUFACTURING

RANKING OF CEDAR RAPIDS MANUFACTURING INDUSTRY					
Assessment Rationale	EBS Variable	Leading	Strong	Average	Weak
<ul style="list-style-type: none"> <li>Slightly negative growth since 2011, compared to steady growth for Iowa and U.S.</li> <li>Linn County hovers around 30,000 manufacturing jobs</li> </ul>	Employment Trends				
<ul style="list-style-type: none"> <li>Wages fall below state and national averages</li> <li>Lower wages offset by lower cost of living and make region attractive to employers</li> </ul>	Wage Trends				
<ul style="list-style-type: none"> <li>Establishment numbers continue to match larger trends of growth in Iowa.</li> <li>Linn County mirrors Iowa and The United States in number of establishments</li> </ul>	Business Establishments				
<ul style="list-style-type: none"> <li>Existing educational institutions and employers provide and attract appropriately skilled workers</li> <li>High turnover and employee retention issues</li> </ul>	Employee Skill Set				
	Overall Manufacturing Industry				

Sources: AE, BLS, CBRE

# TARGET CLUSTERS IN MANUFACTURING

## RENEWABLE FUELS

More than 400 major fleets use bio diesel commercially nationwide. About 300 retail filling stations make bio diesel available to the public, and more than 1,000 petroleum distributors carry it nationwide. Biomass or agricultural waste is also capable of being converted into fuels, electricity, and fertilizers

## AGTECH

Agricultural technologies improve productivity for producing, harvesting, storing, processing and distributing basic food, feed, and fiber supplies. Increasingly companies are adding precision and "intelligence" to these technologies by combining sensors (including biosensors) with computers, controllers, artificial intelligence, GPS, and vision systems. These technologies optimize efficiency, sustainability, and reliability of the food supply while assuring the safety and health of workers, the public, and the environment. Some other productivity enhancing technologies include: environmental controllers, precision agriculture utilizing GPS, yield monitors, remote sensing and variable-rate technology and computerized field equipment. Services such as sales, customer service, technical support, training, management, planning, market and product research will also be needed.

## AVIATION AND AEROSPACE

Aviation and aerospace is a broad industry that consists of civilian and military aircraft, space vehicles, and missiles. Additionally, aircraft suppliers provide parts and machinery for aircraft assembly and maintenance. These parts include engines, interior components, avionics, and aircraft hardware such as landing gear. Suppliers are important for both the assembly and maintenance of aircraft. The industry's customers include the military, commercial airlines, and general aviation.

## RENEWABLE MATERIALS

The Federal Government as well as private industry are pushing for increased use of renewable materials such as plant-derived plastics. Companies, under pressure from consumers to demonstrate a commitment to the environment while seeking innovative methods to improve performance and cut costs are turning to "Green products." Renewable products benefit from the rapidly rising price of steel and petroleum and need to reduce environmental impact. The United Soybean Board has identified five primary target areas that hold great potential for soy-based products: adhesives, which primarily involves wood adhesives; coatings and printing inks, including solvent and water-based products; lubricants, from engine oils to railway lubricants; plastics, particularly rigid and flexible polyurethanes; and specialty products, which can include paint strippers, cosmetics, industrial cleaners and hand lotions. Corn and soybean resin adds strength, flexibility, corrosion resistance, and endurance to the panels, while weighing 25 percent less than steel. Soybean-based resin performance has improved and is able to partially replace petroleum chemicals in industrial grade resins. Other renewable materials are also available. Switch grass for example, is now being used as fiber reinforcement for plastics as well as boiler fuel. In Europe, switch grass is used in injection molding. Kenaf is a natural fiber that is an alternative to fiberglass. It is safer to produce and biodegradable. As construction continues to boom and traditional building materials become scarce, renewable building materials will continue to grow in acceptance and will eventually become mainstream. Bio-based polymers have become attractive to manufacturers recently due to their environmental profile. Unlike plastics made from petroleum, biopolymers made from fermented cornstarch are biodegradable and do not emit toxic fumes when incinerated. Biopolymer products also can be recycled.

# TARGET CLUSTERS IN MANUFACTURING

## WORKFORCE GROWTH CATALYSTS

Workforce needs vary among industries and companies. Manufacturers relying on low-skilled labor often operate in rural areas where they can find affordable workers and generous incentives. Manufacturers requiring large amounts of skilled workers often experience difficulty attracting and retaining qualified talent. Many of these jobs require formal education and specialized skills and experience. Companies have to compete for talent and are willing to pay higher wages for these workers. Local workforce development groups play an important role in helping companies find and develop the skilled workers they require. Availability of a skilled workforce is often the number one site selection criteria.

## CURRENT WORKFORCE

Given the existing manufacturing industry in Cedar Rapids and the entire state of Iowa, the workforce is well positioned for an easy transition to the target industry sectors. With a significant number of people employed in this sector in the area combined with the concentration of college graduates, training and transitioning the local workforce to fit an advanced manufacturing industry should not take long if the community is committed.

## KEY CLUSTER OCCUPATIONS

- Molding, Core-Making, and Casting Machine Operators
- Fabricators
- Rolling Machine Operators
- Machine Tool Operators
- Metal Workers
- Computer Controlled Machine Tool Operators
- Mixing and Blending Machine Operators
- Machine Feeders and Offbearers
- Inspectors, Testers, Sorters, and Weighers
- Industrial Production Managers





# CONCLUSION


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The target industry analysis highlights areas of opportunity for Cedar Rapids. These are industries that match the profile of multiple skillsets of workers in Cedar Rapids and have positive growth trends nationally for the near-term future. These target industries provide pathways for Cedar Rapids to grow its economy within a familiar context while at the same time, encouraging innovation to remain competitive within the region and the country.

The target industry analysis process identified cluster concentrations, evaluated industry trends and local assets, and included input from Cedar Rapids' leadership to ensure best fits and vision alignment. The resultant target industries are:

- Life Sciences
- Logistics & Distribution
- Food Sciences & Processing
- Office Users (Entrepreneurialism, Finance, Insurance, Real Estate)
- Manufacturing (Aerospace, Renewables, Hydrogen)

Each target industry is connected to Cedar Rapids' established economy and provides an opportunity to innovate moving forward.



# OUR TEAM



**Esther Angelou**

Principal owner/Financial Management



**Angelos Angelou**

Founder/Principal Executive Officer



**Matt Patton, Ph.D.**

Executive Vice President



**Marshall McDaniel**

Director of Research



**Andrew Flesher**

Research Analyst



**Ishika Bhatia**

Research Analyst



# ▶ ABOUT AE

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