



United Way
of Central Oklahoma

A red graphic element resembling a heartbeat line, starting with a vertical spike and then fluctuating horizontally.

VITAL SIGNS

Central Oklahoma

INVESTING IN CENTRAL OKLAHOMA'S HUMAN CAPITAL 2021
VOLUME III, EDITION VI



INVESTING IN CENTRAL OKLAHOMA'S HUMAN CAPITAL

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INTRODUCTION

One thing about 2020 is impossible to dispute: it was a year like no other. Unemployment rose to rates not seen in decades and whole industries were brought to a standstill. The terrible loss of life and illness due to COVID-19 directly impacted countless neighbors and friends. Disruptions to systems of health, education and business, which we count on, made us vastly more aware of how quickly our lives can be upended.

While we continue to grapple with the deep economic and health related impacts of COVID-19, we must also recall how crucial essential workers are in helping all of us adapt to such challenging times. The talents and experience each person brings to their employment are irreplaceable to central Oklahoma, and investing in people benefits us all.

This issue of Vital Signs focuses on the importance of employment and the development of human capital in our community. We begin by helping readers understand the contributing factors to human capital development throughout one's life. An individual's health, education and circumstances all contribute to preparing them for the workforce. These areas are also impacted by United Way of Central Oklahoma's network of Partner Agencies – helping develop our community members at each stage of life.

Our report then explores the landscape of our community's labor force and market, both prior to the COVID-19 pandemic and since it has shifted our economy.

Finally, we're presented with promising findings about the emerging industries and career opportunities in central Oklahoma, showing a brighter future if we continue to build on successful partnerships and apprenticeships.

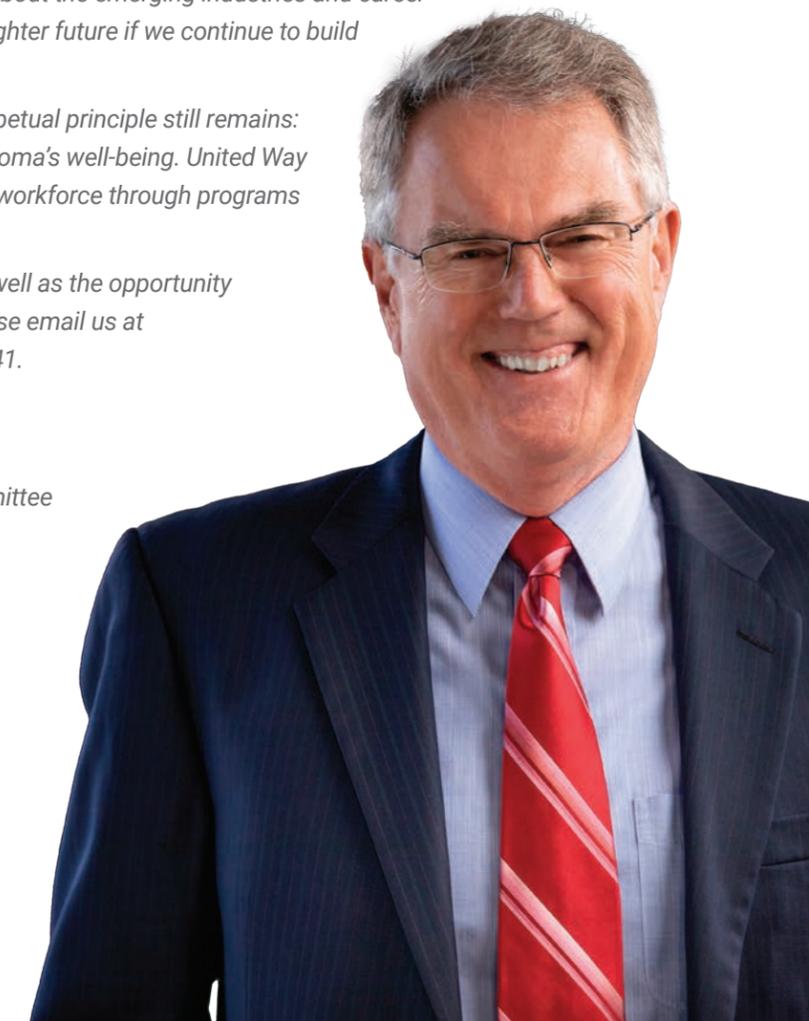
While economic trends can change rapidly, a perpetual principle still remains: investing in human capital is key to central Oklahoma's well-being. United Way of Central Oklahoma supports investment in the workforce through programs allowing all people to reach their potential.

We welcome your questions and comments, as well as the opportunity to present these findings to the community. Please email us at vitalsigns@unitedwayokc.org or call 405-236-8441.

Sincerely,

Dave Carpenter

*Chair, Research and Community Initiatives Committee
United Way of Central Oklahoma*



HUMAN CAPITAL & THE LABOR MARKET

All people have an individual capacity to learn skills, apply knowledge and develop attributes, such as creativity or teamwork. From an economic perspective, this fundamental feature of life reinforces the human capital theory of the labor market.¹ Similar to financial or physical capital, where investments or new factories can return value to an investor, improved human capacity increases productivity for a business. Economic studies show that the talents people develop over their lives are continuously in demand by organizations, consumers and society.

Investment in human capital begins long before a worker undergoes skill training. Human capital is directly linked to a number of life-long factors, such as health and wellness. From childhood to adulthood, health plays an important factor in potential workers safely developing and growing their skills. When an individual is healthy enough to pursue work and use their talents, they are *capitalizing* on the resources of knowledge and skills available to them. The following chart, referencing the World Bank's Human Capital Project, shows the factors that contribute to realize human capital for a child born today, based on their environment:

Life Stages and Human Capital Development.²

SURVIVAL +	SCHOOL +	HEALTH +	= REALIZED HUMAN CAPITAL
Healthy, safe child and adolescent development	Quality of education	Adult health and readiness for work	Developed human capital and productivity
Oklahoma ranked 42nd in overall child-well being. (2021) ³	Oklahoma ranked 47th in average growth in degree attainment (2019) ⁴	Oklahoma ranked 43rd in overall life expectancy (2018) ⁵	Oklahoma ranked 20th in average labor productivity growth (2020) ⁶

Formal and Informal Development for Human Capital⁷

Knowledge and skills acquired through education, job training and hands-on experience are all core to the development of greater human capital. These methods of acquiring human capital are commonly divided into two main areas: formal and informal development.

The capacity to think, study or problem solve are most often developed through education, the best example of formal human capital development. Schools, universities and human service

organizations raise human capital for a local population, often with a focus on young people.

Youth between the ages of 16 to 24 are a key demographic for connection to some form of work or skills training, through formal education.⁸ The stage of life where adolescents and young adults develop their talents is critical to forming stable careers, families and lifelong relationships. Beginning with middle and high school, one tool that is assisting students is an Individualized





Career Academic Plan (ICAP). The purpose of an ICAP is to enhance awareness of career options and inform students of how their individual strengths and learning styles align with future careers. Through the ICAP, students can see how each class, career development experience and advisor contributes to pursuing a career which interests them. Unlike prior traditional career planning methods where a high school graduation is an endpoint, ICAPs can extend beyond high school education. These plans continue to evolve and play a strong role in helping a student navigate higher education and skilled trade programs.⁹

The traditional concept of college and vocational

training is also changing. These institutions are no longer exclusively serving younger students. From 2015-2019, about 1 out of 6 enrolled college students were above the age of 35.¹⁰

As an adult enters the workforce, informal or experiential learning is also important for growing human capital. Since most jobs require a certain level of hands-on, applied skills, acquiring competency through observation in addition to traditional methods of learning matters greatly for human capital. Outside of education settings, it is common for people to have experiences such as military service, volunteer work or daily life that can be applicable to their careers.

United Way's Five Focus Areas

United Way of Central Oklahoma's network of Partner Agencies plays a strong role in influencing the formal and informal development of our community's human capital. These connections are made throughout one's life through each of United Way's five focus areas.

Healthy Citizens

United Way Partner Agencies provide comprehensive healthcare to underserved populations through free clinics, health screenings and low-cost medication assistance. By reducing barriers to healthcare, Partner Agencies are also helping those with health challenges return to opportunities to gain human capital.

Strong Families

An economically supportive, stable family life is a key factor aiding development of human capital. Unfortunately, many families experience barriers to economic and family stability. United Way Partner Agencies assist families in breaking cycles of incarceration and homelessness by providing housing, utility assistance and other social services to keep families together.

Successful Kids

Children are at a unique life stage where they are exposed to many influences that develop their future trajectory. Early skills learned in school such as math, literacy and life skills are the foundation of success in a later career. United Way Partner Agencies are committed to programs that empower and brighten the lives of children. Agencies support academic and social skills of children through program delivery such as tutoring and homework help.

Community Preparedness

Disasters can strike without warning and threaten the safety required to successfully work, run a business or go to school. United Way Partner Agencies provide help for those seeking emergency shelter, housing assistance, food, transportation and legal assistance that are crucial during and after a disaster.

Independent Living

In order to make sure all people regardless of their physical or intellectual challenges can develop skills, inclusion must be a priority. United Way Partner Agencies invest in job training for people with physical challenges, such as hearing or vision loss. Partner Agencies also provide a sense of community and safety for those with developmental disabilities and their families.

Knowledge Capital

The specific aptitudes that a person refines through formal training and on-the-job experience are known as knowledge capital. A key trend emphasizing the importance of knowledge capital has been the increase in the percentage of workforce with educational credentials beyond high school. Trade and vocational schools focus on investing in knowledge capital by developing employer-driven skillsets directly relevant to specific jobs. Universities and community colleges allow students to acquire knowledge over a longer time period driven by academic interests.

More businesses than ever before are relying on a competent workforce in science, technology, engineering and mathematics (STEM) fields.¹¹

STEM career paths begin with accumulation of knowledge capital, leading to skills in analytic thinking. Alongside STEM, fields such as business, arts and humanities remain highly relevant, as nearly 66% of 2017-2018 bachelor's degrees earned in Oklahoma were in non-STEM major.¹² Non-STEM majors allow learners to develop a wide-range of knowledge that is flexible enough to be applied to many employment situations. In the workforce, most successful teams rely on collaboration between workers with different knowledge types. Fortunately, the wide range of options in higher education gives students many paths to build knowledge capital.

PARTNER AGENCY SPOTLIGHT: PIVOT, A TURNING POINT FOR YOUTH

Ty is a young person who came to Pivot via a United Way of Central Oklahoma funded program, The Point, which is an emergency and drop-in shelter. He came to Pivot with no job, no money and no place to live. He was homeless. As Pivot's relationship with Ty continued to grow, they learned that he had worked many jobs in the past but had never kept one very long. The staff and therapists at Pivot understand that quite often youth are not able to keep a steady job due to the effects of trauma. Through coping skills classes and therapy, Ty was able to grow and learn over time and started searching for a steady job.

Pivot's employment coordinator was able to set Ty up with a job at a production company where he serves as a stagehand and works on many corporate events, trade shows and concerts around the country. Recently, he worked as a stagehand at the Austin City Limits festival. This job is not only providing him with a steady paycheck and great experience, but he had previously never left Oklahoma City and now is getting to travel and see the country.

Social Capital

As individuals age, they are seeking to advance in their occupation. Social capital describes the resources that can be accumulated, accessed and exchanged through social networks and relationships.¹³ When job seekers spend time building personal connections and friendships needed for effective collaboration, they are also cultivating social capital. Interviewing and articulating career goals are also crucial social skills for securing employment.

Younger workers tend to have less extensive work experience, and therefore are early in their social capital development. Workers with more experience often invest in the social capital of newer workers through mentorship and guidance. Even informal

settings outside of work, like after-school programs or volunteer activities, build social capital through contacts with coaches and mentors.

Social facilitation of employment through recommendations, information sharing and personal familiarity is a powerful force for occupational advancement. Evidence shows more than 80% of jobs are found through social contacts, and a similar number of jobs are not publicly announced.¹⁴ On a larger scale, encouraging diverse social networks, where more people have contacts from a variety of backgrounds, helps a region develop greater potential for entrepreneurship and business opportunity.¹⁵



“ I could easily be the job seeker struggling with homelessness, substance abuse, mental health, or criminal history were it not for people in my life who were there to help me when I made past mistakes. I want to help people overcome employment barriers because that's how I would want to be treated if I was in their shoes. ”

Thomas Hill III
CEO of Kimray



Emotional or Psychological Capital

Emotional capital refers to the investment in interpersonal relationships and psychological states that can be drawn upon as a resource. Psychological capital is a related concept that focuses on the mental processes, such as planning, self-perception and attitudes that a person can use for a specific purpose.¹⁶ Emotional intelligence, the ability to distinguish emotions in others and appropriately communicate one's

own feelings, is a bedrock to effective teamwork. Human service fields, such as nursing, teaching and counseling, are prominent examples of occupations where an employee spends emotional capital to help others. The work of listening to others and being aware of how others are feeling is labeled the "invisible labor" of human services; it is not always reflected in compensation or formal job duties.¹⁷

TERMS TO KNOW – LABOR FORCE AND HUMAN CAPITAL:¹⁸

- **Labor Force:** The total number of people who are either working (employed) or actively looking for work (unemployed). The "prime age" labor force is a term for workers in early- to mid-adulthood: ages 25-44 or 25-54.
- **Not in the Labor Force:** The number of people who are not employed and are not looking for work in the past month. People who are too young to legally work, serving in the military or in certain institutional settings are not part of the labor force.
- **Marginally Attached Workers:** The total number of people not in the labor force and unlike retirees or children, want to work if a job is available. To meet criteria, workers must have stopped their search in the past month, following repeated attempts at finding a job sometime within the past year. These workers are on the "margins" of the labor force, and have internal feelings of being discouraged from looking for work.

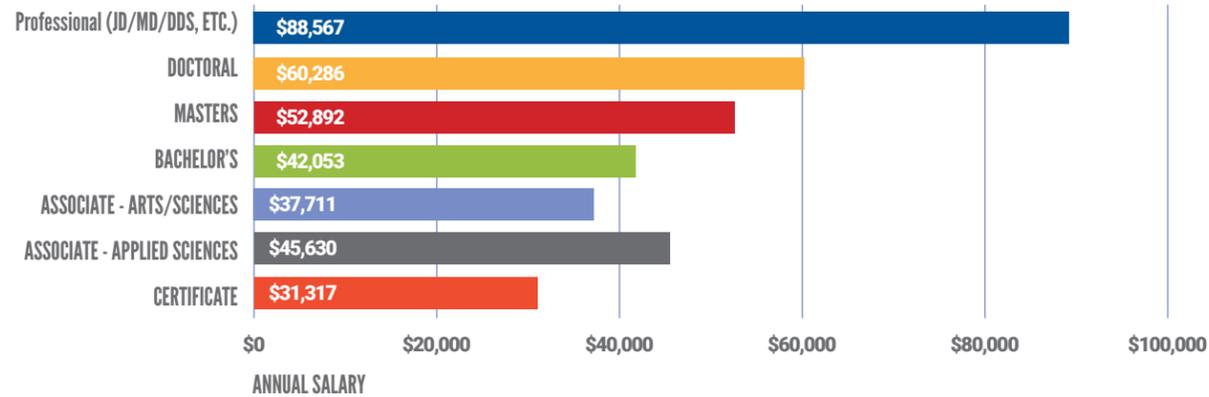
Value of Human Capital – Why Is It Key?

Research confirms that enhancing the human capital of individuals and society as a whole directly translates to improved economic development and quality of life. According to the World Bank, an index for human capital linked to quality education accounted for 72%-86% of the income differences among advanced economy countries similar to the United States.¹⁹ In other words, the capacity of any region to raise their residents' skills, knowledge and preparation is by far one of the largest factors in future prosperity. The tremendous rate of return is shown in multiple ways for the economy:

- In international comparisons, for countries that boost learning and human capital by just 1%, there was an estimated 6%-7% increase in economic growth (2000-2017).²⁰
- Apprenticeships, a form of work-based learning, return \$1.47 to a company, for each \$1 invested in a future worker.²¹
- Each \$1 of state appropriations invested in the higher education system generates \$9.40 in economic output.²²

Investing in Knowledge Capital Through Higher Education²³

Annual Salary, 5 Years Post-Graduation for Oklahoma Public Colleges and Universities



Both individual workers and society as a whole benefit from improving on human capital, due to the higher wages associated with a more thriving, capable workforce. Workers with a broad set of skills are better positioned for a changing economy, with data indicating at least two-thirds of jobs in Oklahoma will demand some form of investment in skills beyond high school.

Workers with greater abilities and education are

more likely to drive the innovations that keep companies on the cutting edge of their fields. Unsurprisingly, the importance of human capital means that regions are in competition to attract the most highly trained workforces available.

Members of the workforce with high human capital also benefit the economy by becoming entrepreneurs or pioneering new concepts, even outside of the traditional “employer-employee” model.

Human Capital and Social Connectivity

Human capital is a pillar of economic success, but it is also relevant beyond the economic bottom line.²⁴ Gaining skills and perceiving improvement in one’s life trajectory is a core part of psychological well-being. Workers not only benefit from the financial aspect of their employment, but also from the personal and professional satisfaction of using their unique skills and feeling valued

by others. Greater human and social capital is associated with higher rates of civic participation and charitable giving. Intergenerational impacts of diminished opportunities for children are more likely when adults do not have pathways to work. Boosting human capital for the greatest possible population is crucial for achieving economic inclusion.





PARTNER AGENCY SPOTLIGHT: OKLAHOMA MEDICAL RESEARCH FOUNDATION (OMRF)

OMRF is cultivating the human capital of a new generation by connecting young adults to early research and mentorship experiences. OMRF's Fleming Scholar Program gives young people paid opportunities to spend a summer working in research laboratories. As students progress to college, OMRF provides further opportunities to gain more intensive, full-time research experience, through a partnership with Langston University. The OMRF Langston University Biomedical Research Scholars program is a paid summer internship, investing in the knowledge of students in fields like cancer and immunology research. The valuable opportunity to author a scientific paper at the end of their internship is a crucial advantage for students interested in pursuing graduate degrees in biomedical fields.

Langston, a public historically Black university in Logan County, furthers its mission to reduce barriers to STEM careers for Black students through the partnership. Approximately 5% of graduate students in STEM fields are Black, showing a need for intentional partnerships with historically Black colleges and universities for increasing the social connections and networks of students of color.²⁵ The OMRF and Langston partnership grows a vital pipeline of local STEM talent, by investing in the knowledge capital of students of color.

Knowledge Capital

- What do workers know and which problems can they solve?
- Increased by higher education, skills training and certification.
- OMRF: Researchers pursue 10+ years of academic training, including completing a dissertation reflecting their specialized knowledge.

Social Capital

- How do they engage others with what they know?
- Increased by social experience and interaction.
- OMRF: Researchers collaborate on experiments, conduct peer review of articles and lead scientific associations to exchange knowledge of their field.

Emotional Capital

- Which conflicts and life circumstances can they resolve?
- Increased by safe environments, coping and healthy expression.
- OMRF: Researchers persevere throughout challenging doctoral programs, demonstrating high focus and determination to help others with their findings.

WHERE WE WERE: OKLAHOMA'S 2019 LABOR MARKET

Oklahoma's economic success depends on matching the supply of skilled workers with the high demand from employers for their talents. Prior to the pandemic, Oklahoma had one of the lowest unemployment rates in the nation, but also featured a lower worker participation rate than other states. Research from the Oklahoma Office of Workforce Development projects a statewide worker shortage of 20,000 people by 2028. In 2019, only 42% of

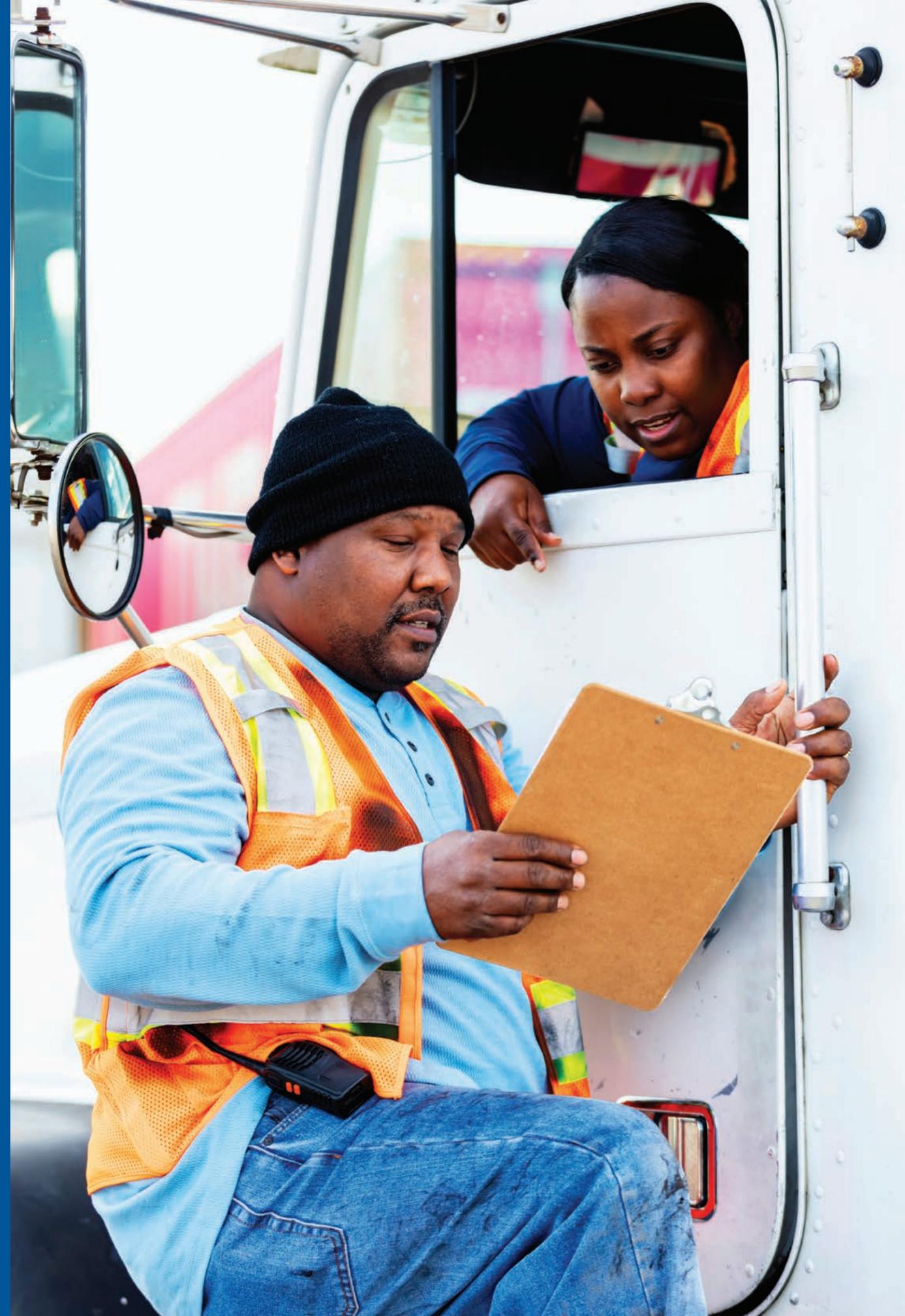
the state's workforce had training beyond the high school level, yet a projected 70 percent of jobs would require some form of postsecondary skills.²⁶ One in five workers in Oklahoma is projected to retire within the next decade, exacerbating the gap in available workers.²⁷ For businesses, this shortage can be a costly problem due to additional expenses from job turnover and reduced productivity when an increasing number of positions remain unfilled.

PARTNER AGENCY SPOTLIGHT: URBAN LEAGUE OF GREATER OKLAHOMA CITY

At 25 years old, Derrick had a part-time job as a machine operator. He was grateful to have a job and he enjoyed the work but the job did not offer benefits such as health insurance. His pay rate was barely above minimum wage and the job offered no path to career advancement.

Derrick came to the Urban League seeking help with obtaining better employment. Derrick participated in the Urban League's workforce development program, and Work Readiness training. He worked with his career coach to plan and implement a new career plan: to assess his professional strengths and weaknesses, and to learn to present skills, experience and abilities on his application and interview. With the assistance of his career coach, he gained an interview and was hired as a groundsman by a sub-contractor for OG&E.

Derrick has continued to work with his career coach and later earned his CDL license. In less than two months at his new job, Derrick's rate of pay jumped to \$20/hour. He loves the job and says that there are many opportunities at the company that can prepare him for advancement and a leadership role.





Oklahoma's Workforce²⁸

Oklahoma's workforce is diversifying in several demographic areas. At the same time a new generation of workers is stepping into the workforce, the population overall is aging.

As a result they have lower participation in the full-time workforce than older age groups on average.

- About 1 in 5 workers is above the age of 55, a proportion that is projected to increase.
- Younger workers are the most likely to be at the stage of life where higher education is prioritized.

- One-third of the workforce is of a racial or ethnic minority group in Oklahoma.
- About 1 in 13 workers in Oklahoma has a disability.

Oklahoma Workers by Race/Ethnicity

CATEGORY	WHITE		BLACK		AMERICAN-INDIAN AND ALASKA NATIVE		ASIAN/PACIFIC ISLANDER		MULTIRACIAL		HISPANIC	
	Q2 2019	Q2 2020	Q2 2019	Q2 2020	Q2 2019	Q2 2020	Q2 2019	Q2 2020	Q2 2019	Q2 2020	Q2 2019	Q2 2020
Selected Months												
Employment-to-Pop Ratio	58.7%	52.7%	57.7%	59.4%	58.1%	51.6%	64.9%	48.0%	73.3%	62.1%	63.4%	56.0%
Unemployment Rate	2.7%	7.0%	3.6%	7.4%	3.8%	16.4%	2.0%	**	3.5%	4.6%	3.3%	11.9%
Unemployed	32,918	93,052	4,143	13,391	6,225	28,298	1,047	**	3,590	6,784	6,970	28,406

** Data not fully reported due to low sample size.

Oklahoma Workers by Educational Status

CATEGORY	LESS THAN HIGH SCHOOL		HIGH SCHOOL OR GED		SOME COLLEGE, OR 2-YEAR DEGREE		BACHELOR'S OR ADVANCED DEGREE	
	Q2 2019	Q2 2020	Q2 2019	Q2 2020	Q2 2019	Q2 2020	Q2 2019	Q2 2020
Selected Months								
Employment-to-Pop Ratio	38.9%	29.2%	58.2%	47.5%	61.7%	59.6%	72.7%	67.3%
Unemployment Rate	5.9%	8.0%	3.1%	14.7%	2.8%	10.3%	1.9%	6.3%
Unemployed	10,744	10,489	18,173	77,675	15,557	58,060	10,428	37,431

Top 10 Occupations by Employment Size in the OKC Metro Area (May 2020)²⁹

RANK	OCCUPATION	EMPLOYMENT (COUNT)	MEDIAN ANNUAL WAGES	EDUCATION REQUIREMENTS
1	Retail Salespersons	17,580	\$24,300	No formal education credential
2	Fast Food and Counter Workers	17,400	\$21,750	No formal education credential
3	Registered Nurses	14,690	\$68,020	Associate or Bachelor's degree
4	Customer Service Representatives	13,670	\$32,490	High school diploma or equivalent
5	Laborers and Freight, Stock and Material Movers	13,640	\$35,090	No formal education credential
6	Cashiers	13,060	\$21,980	No formal education credential
7	Waiters and Waitresses	10,020	\$19,560	No formal education credential
8	Heavy and Tractor-Trailer Truck Drivers	9,640	\$47,490	Postsecondary nondegree award
9	General and Operations Managers	9,340	\$94,230	Bachelor's degree
10	Secretaries and Admin. Assistants	8,460	\$33,360	High school diploma or equivalent

A recent report from the Central Oklahoma Workforce Innovation Board details the pre-pandemic projected increases for local workers in the greater Oklahoma City area. A higher share of jobs in emerging, high-demand industries are projected to pay higher than the median wage in Oklahoma, which was \$21.93 in 2019.³⁰ The Workforce Innovation Board developed strategies to

secure more employment in high-demand sectors, including healthcare, industrial occupations, STEM and transportation and distribution. The 2019 projections of workforce demand identified the top three occupations in each of these fields, which helps illustrate important occupations driving employment opportunities in the region³¹.

Central Oklahoma - Top 3 Healthcare Emerging Occupations by Number of New Jobs

DESCRIPTION	2019 EMPLOYMENT LEVEL	2024 PROJECTED EMPLOYMENT LEVEL	CHANGE (%)	MEDIAN HOURLY EARNINGS
Registered Nurses	10,019	10,547	5%	\$31.68
Medical Assistants	3,880	4,220	9%	\$15.36
Medical and Health Services Managers	1,997	2,289	15%	\$40.07

Central Oklahoma - Top 3 Industrial Emerging Occupations by Number of New Jobs

DESCRIPTION	2019 EMPLOYMENT LEVEL	2024 PROJECTED EMPLOYMENT LEVEL	CHANGE (%)	MEDIAN HOURLY EARNINGS
Industrial Machinery Mechanics	650	751	16%	\$23.81
Tire Builders	290	371	28%	\$35.07
Industrial Engineers	359	420	17%	\$39.63

Central Oklahoma - Top 3 STEM Emerging Occupations by Number of New Jobs

DESCRIPTION	2019 EMPLOYMENT LEVEL	2024 PROJECTED EMPLOYMENT LEVEL	CHANGE (%)	MEDIAN HOURLY EARNINGS
Management Analysts	561	672	20%	\$41.01
Market Research and Marketing Specialists	558	643	15%	\$26.87
Software Developers and Software Quality Assurance Analysts and Testers	1,760	1,818	3%	\$41.01

Central Oklahoma - Top 3 Transportation & Distribution Emerging Occupations by Number of New Jobs

DESCRIPTION	2019 EMPLOYMENT LEVEL	2024 PROJECTED EMPLOYMENT LEVEL	CHANGE (%)	MEDIAN HOURLY EARNINGS
Laborers and Freight, Stock and Material Movers (by Hand)	5,976	7,391	24%	\$14.90
Industrial Truck and Tractor Operators	1,526	2,173	42%	\$18.58
Stockers and Order Fillers	1,765	2,321	31%	\$12.13





“Dell has a passion for investing in the workforce of tomorrow. We launched an IT Apprenticeship and Youth IT Apprenticeship program in 2017, in conjunction with ASTEC Charter School and the Oklahoma Office of Workforce Development. The programs help high performing high school students gain valuable skills in technology, further their education, and jump start career opportunities, all while getting paid.”

Heather Nottingham
Regional Sales Director, Dell EMC / Site Director, Dell OKC

Pre-Pandemic Demand in Skilled Trades, Modern Energy and Aerospace

Securing work in high-demand areas can benefit those traditionally underserved by the job market, by raising incomes and sustainability in employment. In the skilled trades, a variety of occupations including construction laborers, electricians, plumbers and HVAC trained technicians had a projected growth of 15% between 2020 and 2030.³² While these positions in construction do not require a four-year degree, they still require certification and training beyond the high school level. Oklahoma's well-established energy sector is also changing, gradually developing a need for more workers with training in wind, solar and battery installation technologies. Aerospace

engineers with specialized training and advanced skills in science and mathematics are currently not graduating from local colleges at the level needed by the defense and aerospace industries.

Prior to the pandemic, leaders in central Oklahoma sought to address the shortage of workers in these fields, and others, through targeted investments and collaboration in strategies to train workers and develop their career pathways. In the three areas of aerospace, construction and modern energy, Oklahoma is leveraging policies and supportive services to address gaps in the workforce.³³

PARTNER AGENCY SPOTLIGHT: REMERGE

ReMerge is a pre-trial diversion program, with the mission to restore mothers and families through comprehensive programs of treatment, recovery and hope. Oklahoma incarcerates women at a dramatically higher rate than the national average, impacting not only mothers, but also their children and families.

Taking part in the ReMerge program, Marissa jumped at an opportunity to go to coding school and discovered her passion as an IT Project Manager at Deep Fork Technologies. She began as an intern there after taking part in a pilot program, supported by Palomar, called Control-Shift Code School. She was fortunate to start at the company when it was small and one of the first Fair Chance Employer partnerships developed by ReMerge. Now, it is a vibrant and growing company that Marissa continues to call home.

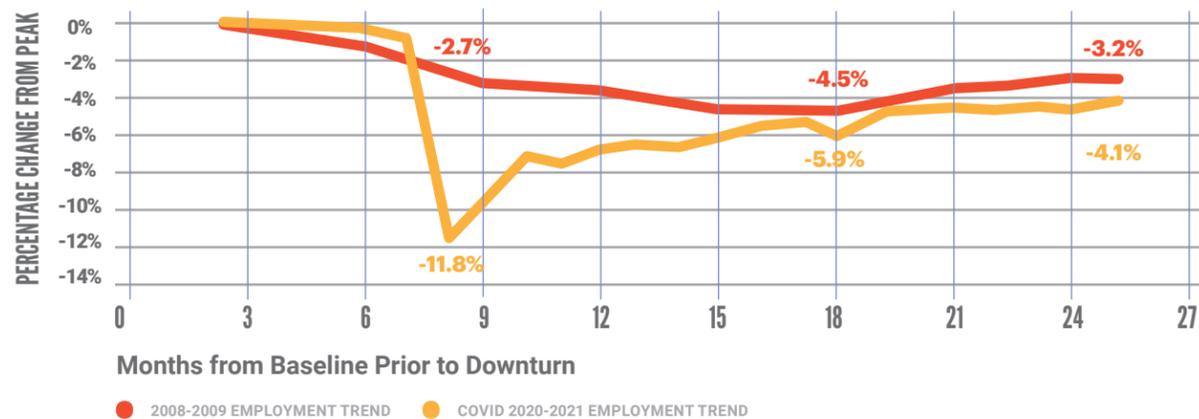
Thanks to ReMerge and the job training opportunity it provided, Marissa was given a chance to develop human capital despite the obstacles of her situation. Today, Marissa is an independent woman who lives her life based on what makes her happy, stating, "I'm a better mom who loves herself."

WHERE WE ARE: COVID-19'S IMPACT ON OKLAHOMA'S LABOR MARKET

The year 2020 was marked by truly unprecedented changes in the economy. The scale of the precautionary measures such as business closures and social distancing reduced employment more quickly than any time in recent history. According to data from the Oklahoma Employment Security Commission, 1 out of every 9 workers in the OKC

region lost employment during the early part of the pandemic. The immense employment loss of the pandemic effectively erased nine years of gradual overall employment gains in the OKC metropolitan area.³⁴ Historical trend data reveals that this rate of job loss was the fastest on record, much sharper than the scale of the last major recession of 2008-2009.

2008-2009 VS. 2020-2021 Employment Losses, OKC Metropolitan Area



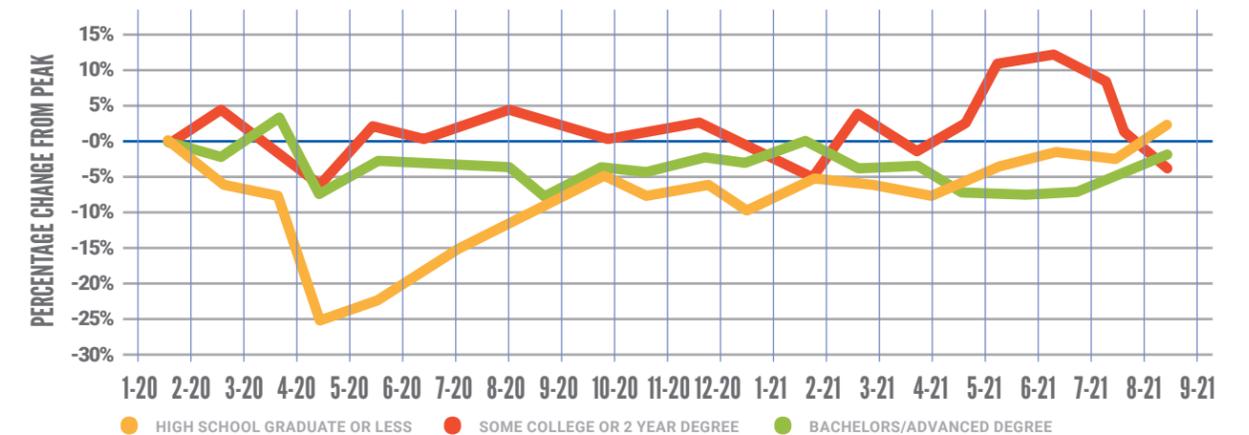


The impact of the global COVID-19 pandemic affected countless workers, but was especially detrimental to workers with lower levels of education. While Oklahoma’s workers without a high school degree made up about half of the overall workforce, they comprised 70% of the unemployed at the end of 2020.³⁵ The employment-to-population ratio for these workers declined by 25% in April 2020 when precautionary pandemic measures were widespread. The recovery for

workers with limited education has been gradual, with workers in the tourism, restaurant and hospitality sectors especially hard hit.

Demand for in-person leisure and hospitality services plunged due to stay-at-home orders and concern about spread of COVID-19. Another vulnerability for workers in these fields was due to many positions having hourly compensation and few options for remote work.

Percent Change in Employment to Population Ratio by Education - Oklahoma (2020-2021)



PARTNER AGENCY SPOTLIGHT: NEWVIEW OKLAHOMA

NewView Oklahoma is the state’s leading employer of individuals who are blind or have low vision, providing nearly 150 jobs through in-house manufacturing positions, administrative, management, rehabilitation professionals, and a growing number of service contracts.

As the sole supplier of all fire hoses for the U.S. Forest Service since 2000, NewView Oklahoma has produced over 2 million hoses over the last 20 years using blind and low-vision labor. But in 2021, amidst supply chain breakdowns and strained resources dedicated to COVID-19 vaccine production, NewView Oklahoma faced a problem. Because suppliers were dedicating time, resources, and capital to exclusively support vaccine production, NewView was without the materials needed to adequately fill fire hose production needs.

By working with the federal government’s executive branch to enact the Defense Production Act, NewView was able to guarantee dedicated resources to fire hose production at a rate that would meet the Forest Service’s need without hampering vaccine production. This single move allowed NewView Oklahoma and their employees to immediately double the production rate of fire hoses for the U.S. Forest Service and meet the emergency needs of our neighbors out West as wildfires ravaged millions of acres of land.

COVID-19 and Workers on the Margins

Throughout the COVID-19 pandemic, researchers observed a much higher rate of marginally attached workers – people outside the labor force who want to work if a job is available. The standard “headline” unemployment rate usually featured in press coverage did not count discouraged or other marginally attached workers, who had multiple reasons to be less active in their job search than those who were temporarily unemployed. The Department of Labor’s Current Population Survey uses alternative measures to provide data on the common reasons that cause people to be marginally attached to pursuing a job.³⁶

In previous recessions, there has often been a

pattern where job seekers struggle to get back into the workforce, so temporary lapses in work can extend to longer term issues finding work after the immediate crisis begins to recede. Researchers label this effect as labor market “scarring,” or noticeable, extended difficulty in the job market after a downturn.³⁷

Adults who are disconnected from work experience loneliness and other harmful mental health outcomes at higher rates.³⁸ Increasing the human capital of nonworking members of the central Oklahoma community supports positive health and social outcomes in the community and can improve the likelihood of re-entering employment.

COVID-19 and Leaving the Labor Force

DISCOURAGED WORKERS	OTHER MARGINAL ATTACHMENT
<p>DEFINITION Discouraged workers want to work, but have stopped looking, for reasons related to human capital.</p>	<p>DEFINITION Other marginally attached workers are out of the labor force due to overriding factors, often related to health and family.</p>
<p>BY THE NUMBERS 5,600 discouraged workers in Oklahoma (Q4 2020) Trend: +33% compared to Q4 2019</p>	<p>BY THE NUMBERS 12,500 other marginally attached workers in Oklahoma (Q4 2020) Trend: +21% compared to Q4 2019</p>
<p>FROM THEIR PERSPECTIVE Jobs are not available Feel unqualified or lacking in skills Continually rejected on applications Perception of discrimination</p>	<p>FROM THEIR PERSPECTIVE Cannot find childcare Family responsibilities School and training priorities Not feeling healthy enough</p>

The Pandemic’s Impact on Parents in the Workforce

Oklahoma’s labor market data shows divergence in work outcomes between parents of school age children and non-parents. Even prior to the pandemic, women on average have greater responsibilities for securing childcare, including staying at home when it

is not available.³⁹ Among workers in Oklahoma ages 25 to 54, parents with a child under 18 in the home had a deeper decline in the labor force participation rate in the second half of 2020, meaning they were less likely to be working or searching for a job.



“Navigating COVID and the impacts on the workforce have been challenging to say the least. Dolese has worked to continue to communicate with employees and train employees using various virtual methods. We’ve provided guidance on staying safe in order to ensure our employees were able to be trained/mentored during this time.”

Toni Ashley
HR Director of Dolese Bros. Co.

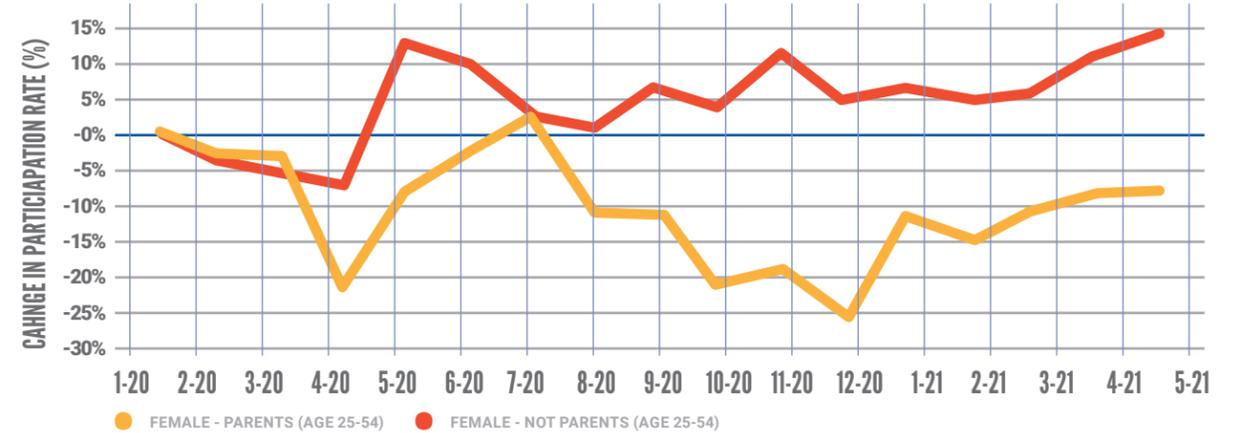


Women faced an especially stressful time in the workforce during the pandemic, which is reflected in the initial data on the pandemic. A national survey conducted by McKinsey & Company found that one in four women considered leaving the workplace or downsizing their career

responsibilities.⁴⁰ The same study also found a markedly higher rate of feelings of burnout and exhaustion for women, compared to men. For women who were parents of children under 10, the rate was about twice as high compared to the rate for women without children.

Childcare Challenges Impacted Oklahoma's Human Capital⁴¹

Percent Change in Working-Age Women's Labor Force Participation by Parental Status



COVID-19 and the Healthcare Workforce

Disruption in the workforce shifted the career paths for a large number of central Oklahomans. Healthcare workers encountered a tumultuous job market, due to the drastic impact of the health emergency on workforce needs. Major health systems in Oklahoma City announced furloughs and reductions in their workforces after halting non-urgent medical procedures.⁴² For some nurses, the reduced volume of procedures interrupted steady surgical, ER and outpatient work opportunities normally available to them. At the same time, hospitals dealing with increased COVID-19 admissions sought out additional nurses and respiratory therapists with the intensive care skills necessary to care for ill patients.

The complexities of the pandemic upended the healthcare workforce, but overall demand for healthcare workers gradually returned to high levels in late 2020 and early 2021. In order to meet the

increased need, central Oklahoma's educational institutions created innovative partnerships to extend the capacity of the healthcare workforce. The University of Oklahoma's College of Nursing utilized its partnership with ten Oklahoma CareerTech centers to streamline content for the nurse refresher courses in January 2021 while making the course more financially accessible.⁴³ Canadian Valley, Metro Tech and Moore Norman Tech centers participated. Refresher courses are ideal for nurses who may have temporarily left the workforce, but retain significant practical skills. Refresher courses also open a path to practice for nurses who completed their education but have not yet completed their board exams. The streamlined design of the refresher trainings provide a pathway to a faster return to the workforce, while still giving thorough preparation for in-person nursing skills through labs and clinical rotations.

PARTNER AGENCY SPOTLIGHT: DRTC

DRTC (Dale Rogers Training Center) promotes employment for all people and works to reduce barriers and improve the quality of life for those with different abilities. One barrier DRTC lifts for prospective workers is providing transportation to individuals with mobility challenges. Their mission of supporting people with disabilities through paid vocational training, in-house programs and work opportunities directly relates to investing in human capital for different abilities.

Throughout the pandemic, workers with disabilities remained active at DRTC, serving at federal facilities including Tinker Air Force Base and the Federal Aviation and Aeronautics Administration. To respond to COVID-19, DRTC's clients contributed by assembling personal protective equipment (PPE). DRTC partnered with a company to make face shields, a type of PPE known to be effective in reducing the potential spread of the virus. Workers at DRTC quickly adapted to new tasks for assembly of PPE that was delivered to healthcare workers at the Oklahoma City-County Health Department.

Recovery in 2021

As the state's economy recovered, Oklahoma's workforce found greater success in securing employment. Data from the September 2021 employment reports list Oklahoma City's metropolitan area with a 1.9% unemployment rate, with a state rate of 3.0%. For September 2021, Oklahoma City's metropolitan area had the lowest unemployment rate of metropolitan areas with more than 1 million people.⁴⁴ In the summer of 2021, several local industries had recovered to near or above the level of employment achieved prior to the pandemic:

Oklahoma City Area Job Growth Snapshot by Industry (February 2020 to June 2021)

- Manufacturing (up by 400 jobs)
- Trade, Transportation and Utilities (up by 1,200 jobs)
- Education and Health Services (up by 400 jobs)
- Leisure & Hospitality (even with pre-pandemic employment)

Improvements in the jobs picture was made possible by a number of factors, most notably due to decline in the public health impact of COVID-19 and federal relief funds to keep consumer and business demand steady. Local industries with positive growth trajectories despite pandemic-related challenges include aerospace and warehousing and distribution. The aerospace sector directly employs 43,250 workers in the greater Oklahoma City region.⁴⁵ Warehousing

and distribution was driven to higher growth by the upsurge in e-commerce during the pandemic. According to data cited by the Greater Oklahoma City Chamber, the metro's employment in this sector grew by 56% from 2010 to 2020, outpacing the national rate of growth of only 21%. Workers with competencies in technologies related to trucking, inventory management and e-commerce will be likely to remain in high demand after the pandemic.⁴⁶ The promising trend of growth in these fields can benefit those who have not yet been able to find stable employment.

Fast-moving developments in industry, even prior to the COVID-19 pandemic, have created greater demand for a highly skilled workforce in a number of areas. Remote work has been a significant factor in the recovery, with about 1 in 6 workers remaining at work offsite through the middle of 2021. In the Oklahoma City area, 10% of jobs posted between August 2020 and July 2021 advertised as remote work opportunities.⁴⁷ However, for individuals with more limited education, a much smaller share are afforded this opportunity. On average, less than 4% of workers with a high school degree or less reported working remotely in the last six months of 2020.⁴⁸

Digital communication is also more important than ever. Hiring events, interviews and opportunities to share work-related skills are migrating online. A greater share of workers could benefit from the post-pandemic job market through upskilling in digital skills related to remote work and online recruitment.





“As a business, you have to be inclusive. Include everyone, and be inclusive in all regards. In the past, employees tended to ‘sell themselves’ to the employer, but now things are more the other way around. It’s more important to show what you can offer to attract talent – and inclusiveness is a part of that.”

Nora Mendizabal
Area Director of People and Culture, 21C Museum Hotels

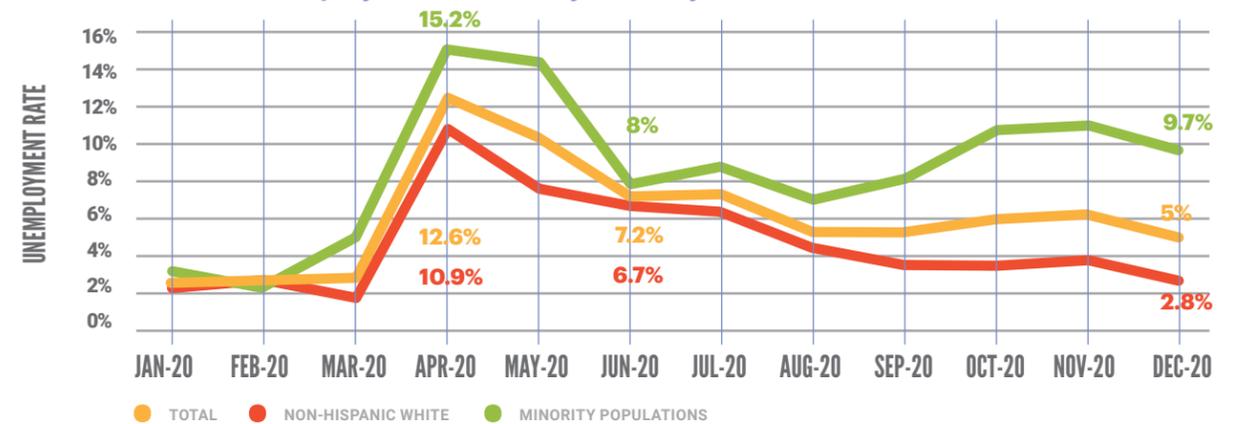
WHERE WE'RE GOING: INVESTING IN HUMAN CAPITAL IN OKLAHOMA

Although a human capital framework sheds light on several aspects of the workforce, there are areas it does not fully take into account. Longstanding barriers to employment at the societal level persist, preventing a significant share of the population from actualizing the knowledge, social and emotional capital that they have gained throughout life.

People of color, women and those with different abilities often encounter systemic barriers to advance in the workforce, which can undervalue their potential human capital. Even when qualifications were similar, a Harvard Business

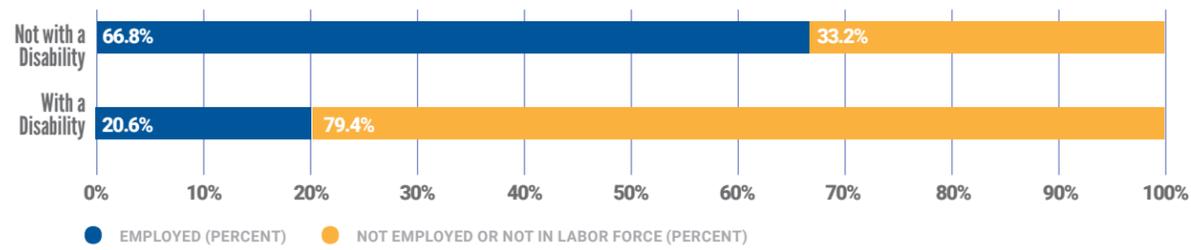
Review analysis of multiple studies noted Black and Hispanic applicants received fewer callbacks for job applications than white applicants.⁴⁹ For example, in June 2020, Black adults with 2-year degrees had comparable success in securing work to white workers who had only completed high school.⁵⁰ In the past and present, women have faced discrimination in higher education and pay disparities at work, despite their equal performance ability. Further studies demonstrate how human capital is at times higher in workers of color yet does not always translate into better labor market outcomes.

2020 Oklahoma Unemployment Trends by Minority Status



Workers with Different Abilities

Employed Share of Population by Disability Status - September 2021



Workers who live with disabilities also experience barriers to maximizing their human capital. While estimates show more than two-thirds of people of working age with disabilities want to work, only about one-third are employed. A higher proportion of those with a disability also do not complete high school or higher education.⁵¹ Direct forms of occupational segregation for this community include discrimination in hiring, while indirect barriers connect to the numerous structural obstacles in housing, transportation and social networks that facilitate employment opportunities.

Oklahoma City is the second largest major city in the continental United States by land area, posing notable challenges in commuting workers between jobs and residential areas.⁵²

- 1 in 4 (27%) of workers in the Oklahoma City metro area must travel to a job that is outside their county of residence.⁵³
- Oklahoma City metropolitan area workers below the poverty line are nearly twice as likely to not commute by car as the overall population.⁵⁴





“The greatest benefit to our business has been the addition of focused and engaged employees who may have not received the same opportunities if not for Fair Chance Employers willing to recognize the value that they bring into the work environment. We have found that attendance, performance, and retention outpace most candidates from other recruitment sources simply due to the fact that these individuals have learned things about themselves that others have yet to discover, such as the value of employment as part of a life strategy, the benefits of persevering through adversity, and the satisfaction that comes with achievement.”

Dave Husted

Senior Vice President of Human Resources, M-D Building Products

PARTNER AGENCY SPOTLIGHT: THE EDUCATION AND EMPLOYMENT MINISTRY (TEEM)

TEEM is a United Way Partner Agency that builds on the work of the Chamber's efforts to promote reentry for the formerly incarcerated. As an interfaith nonprofit organization, TEEM cultivates relationships with a large network of second chance employers who invest and give opportunities to those who are working to reenter society with a fresh, positive start.

The hidden expectations of the job market, including dress codes, work-related vocabulary and conduct in the workplace are rarely shared with those involved with the criminal justice system. Fortunately, TEEM prepares returning inmates for how to navigate topics that can serve as a barrier to employment. TEEM staff and knowledgeable volunteers instruct evidence-based curriculum featuring mock interviews, resume building and financial skills.

TEEM is also engaging with those who have served our country as veterans of the Armed Forces. Through a new partnership with the Oklahoma Department of Veterans Affairs, a veterans service representative is on-site at TEEM's building. The support provided for justice-involved individuals bolsters the inclusion for men and women who navigate not only the challenges of former incarceration, but also the complex health and benefits systems for veterans.

Incarceration and Human Capital

Incarceration and involvement with the criminal justice system can produce harmful outcomes with respect to human capital. For younger inmates, securing work rather than returning to incarceration is especially challenging. More than 8 out of 10 prisoners age 24 or younger at the time of release were re-arrested within 5 years.⁵⁵ One out of eleven veterans between the ages of 26 and 49 struggles with a serious mental illness, which can contribute

to cycles of incarceration and illness.⁵⁶ Human services programs, such as job training tailored to the unique needs of people with prior offenses, help restore hope and value for a group that society has too often associated only with negative labels. In recent years, employers are beginning to recognize more job seekers with prior offenses for their perseverance and willingness to re-train in new skills, if given a second chance.

Second Chance Employers

Job seekers with prior criminal records, including non-violent felonies, can face a host of challenges in securing a job. However, more companies are working to change the historically discouraging effect of criminal justice involvement on employment by updating their hiring practices. The Greater Oklahoma City Chamber of Commerce has promoted second chance hiring through their release of the Fair-Chance Toolkit, a

handbook guiding businesses on the important considerations that must take place to offer employment chances.⁵⁷ Aligned with their criminal justice reform efforts, the Greater Oklahoma City Chamber helped establish the Oklahoma Criminal Justice Authority, with a vision to end the undervaluing of people who had potential for success, despite their prior history.

Mental Health and the Workforce

Poor mental health, as experienced by millions of workers, can be debilitating to employment. Experts studying mental health during the pandemic have observed a sharp increase in the proportion of the workforce feeling symptoms of mental health challenges.⁵⁸ The profound mental health difficulties during the pandemic are demonstrated by higher burnout and work-related stress, as studies have confirmed higher rates, particularly for healthcare workers.

Emotional capital is closely linked to the protective factors that buffer against harm after past

childhood trauma.⁵⁹ As the population ages and psychological distress is exacerbated by the pandemic, addressing mental, emotional and behavioral health of the workforce will become an integral part of all industry sectors, especially the “caring” economy.

- Nearly 4 in 10 adults reported symptoms of mental health concerns in February 2021, a rapid rise from only about 1 in 10 adults in the initial stages of the pandemic.

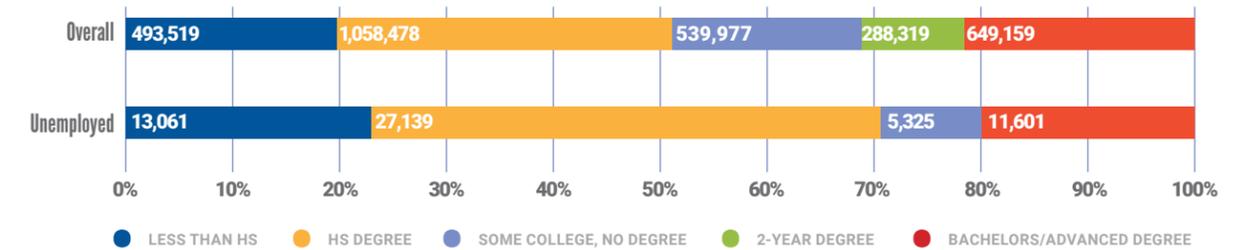
PARTNER AGENCY SPOTLIGHT: MENTAL HEALTH ASSOCIATION OKLAHOMA

Companies have devoted more attention to stress and fatigue in their workforces. Leadership at Love’s Travel Stops and Country Stores, based in Oklahoma City, became aware of the toll pandemic-related stressors were taking on employees, particularly for those with 24/7 travel stop operations duties. The company implemented evidence-based suicide prevention training for staff to reduce stigma and promote access to help in times of distress. QPR, which stands for Question-Persuade-Refer, is an easy to remember intervention technique that ordinary, non-clinical staff can use with people they know.⁶⁰ Training by Mental Health Association Oklahoma helped Love’s employees recognize and respond positively to their co-workers who might be showing concerning signs of distress at work.





Share of Overall and Unemployed Populations by Education Status - September 2021



Central Oklahoma Workforce Innovation Board and Postsecondary Training

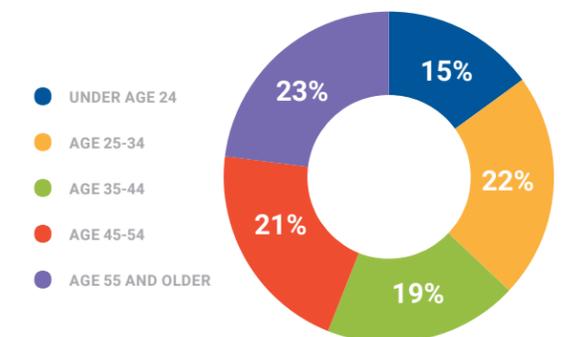
The Central Oklahoma Workforce Innovation Boards is one of six local workforce development boards dedicated to coordinating workforce investments from the federal Workforce Investment and Opportunity Act to use dollars for the most impact on future human capital need in Oklahoma.⁶¹ As part of services supported by the Act, Oklahoma prioritizes helping in-school and out-of-school youth with barriers to employment. Services include tailored options to attain educational services such as tutoring, youth development and skills training through Oklahoma CareerTech to assist youth in their journey towards employment.

about half of the workforce has attained these credentials.⁶² Employers have noted that fast-paced industries poised for expansion have encountered growth constraints, related to securing a highly skilled workforce.

The Workforce Innovation Board, along with partners of United Way, has leveraged apprenticeships as a key strategy to reduce skills gaps.

One issue the Board has brought into greater focus is the skills gap. An important challenge employers are facing is a predicted shortage of workers with the required skills needed for the role. A majority of future jobs, up to 70%, will require some sort of post-high school training or education, yet only

Labor Force by Age Group - September 2021



Oklahoma Workers by Age

CATEGORY	AGE 24 AND UNDER		AGE 25-34		AGE 35-44		AGE 45-54		AGE 55 AND OVER	
	Q2 2019	Q2 2020	Q2 2019	Q2 2020	Q2 2019	Q2 2020	Q2 2019	Q2 2020	Q2 2019	Q2 2020
Employment-to-Pop Ratio	54.8%	44.2%	78.5%	72.3%	83.1%	75.1%	74.0%	68.1%	37.5%	33.5%
Unemployment Rate	5.5%	14.1%	2.4%	11.5%	2.3%	8.8%	3.7%	9.8%	3.5%	4.6%
Unemployed	13,626	33,293	9,847	46,082	10,032	38,277	12,737	34,370	8,680	31,632

Apprenticeships

Apprenticeships are a longstanding method of investing in the skills of workers early in their career journeys. First recognized at the federal level in 1937, apprenticeships have evolved alongside the new technologies and occupations of the 21st century. Under the National Apprenticeships Act, registered programs receive federal support, in exchange for adherence to standards.⁶³ Businesses partnering with the Oklahoma Office of Workforce Development receive grants of up to \$10,000 for starting a new program. Apprenticeships can also be run independently with private or local funding sources. Apprentices combine formal learning and milestones with relevant, on-the-job experience. Evidence indicates that early opportunities to learn about new fields and apply practical skills help both workers and organizations. Registered apprenticeships have

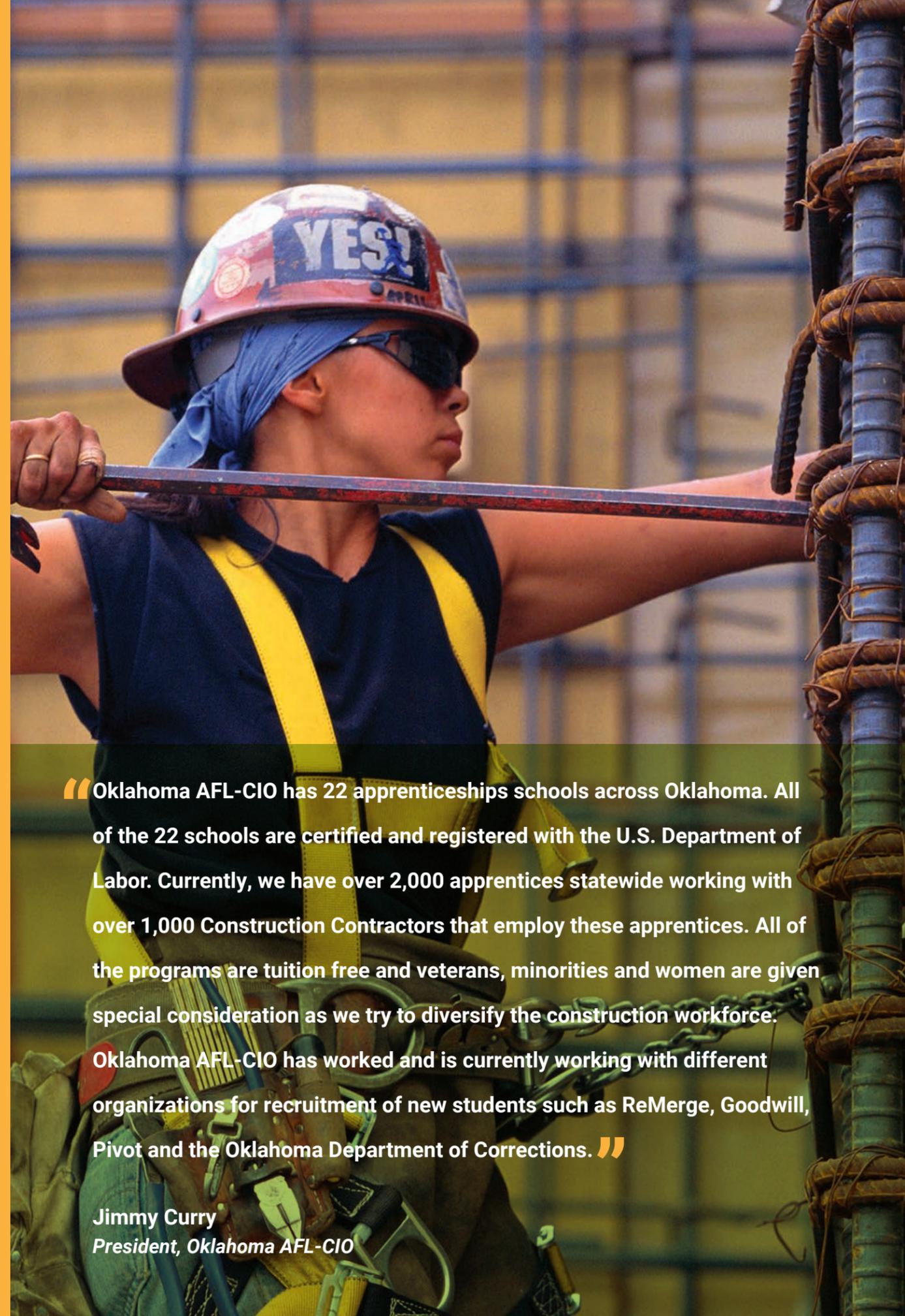
grown from 108 programs in Oklahoma during fiscal year 2008 to 116 in fiscal year 2020.⁶⁴

Learners with apprenticeships receive a paycheck from the beginning of their acceptance into a program that can increase as the learner progresses. Apprenticeships have an impact on some of the most in-demand positions in the skilled trades, ranging from aircraft maintenance and emergency medical technicians to management occupations. Employers gain value from this by bringing on new workers, frequently for hard to fill positions with in-demand skills. Furthermore, employers can reduce the costs related to on-boarding and orientations that would happen for workers trained elsewhere. The wage earned by apprentices in their training is an incentive for the worker-in-training to maintain engagement in the future of the company.

PARTNER AGENCY SPOTLIGHT: GOODWILL INDUSTRIES OF CENTRAL OKLAHOMA

In 2019, Goodwill Industries embarked on the development of a new apprenticeship program focusing on creating opportunities in their Donated Goods Retail division. Across the several site locations, Goodwill developed a partnership with the Oklahoma Office of Workforce Development to set up apprenticeship programs to help workers upskill in all aspects of their Central Oklahoma retail stores.⁶⁵

Beginning at the cashier level, apprentices earn a wage, which is especially beneficial to lower-income workers. Workers with limited job history and lower incomes are more likely to face circumstances where they cannot devote extended time to ongoing training without getting paid. Goodwill pays retail associates to train in the management principles for retail stores, through a course offered by the National Retail Federation. By training to national standards, Goodwill's employees can gain a flexible credential, which not only helps them become more capable managers, but also provides the option to take their skills to other locations.



“Oklahoma AFL-CIO has 22 apprenticeship schools across Oklahoma. All of the 22 schools are certified and registered with the U.S. Department of Labor. Currently, we have over 2,000 apprentices statewide working with over 1,000 Construction Contractors that employ these apprentices. All of the programs are tuition free and veterans, minorities and women are given special consideration as we try to diversify the construction workforce.

Oklahoma AFL-CIO has worked and is currently working with different organizations for recruitment of new students such as ReMerge, Goodwill, Pivot and the Oklahoma Department of Corrections.”

Jimmy Curry
President, Oklahoma AFL-CIO



The Role of Retraining and Switching Occupations for Human Capital

Another important aspect of developing human capital is maximizing the availability of retraining opportunities to assist in switching occupations. Given the dynamism of the economy, people already trained for one career track may still want or need to replenish their human capital in brand new areas to embark on a new occupation. During the pandemic, labor market statistics indicate that a growing number of workers considered switching

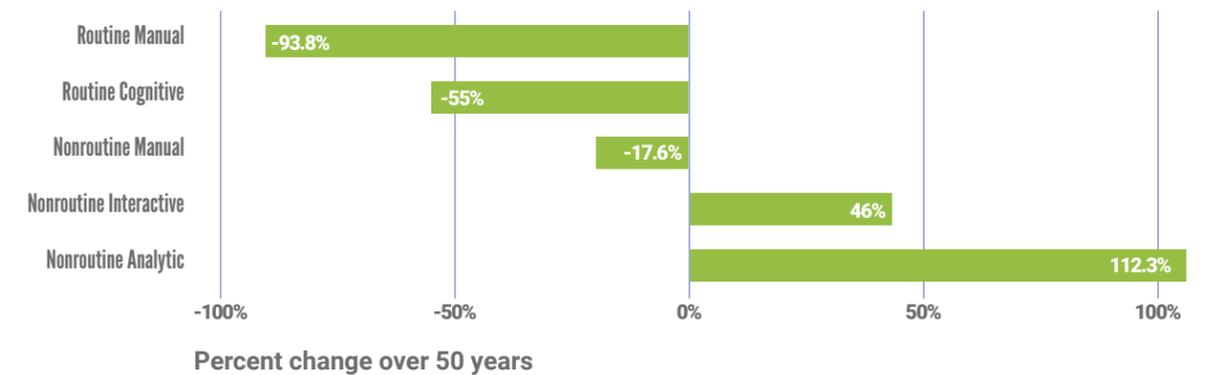
career pathways. A March 2021 study reviewing 11 months of data in 2020-2021 revealed leisure and hospitality sector workers led all sectors in their rates of changing occupations to another industry. About 30 percent of leisure and hospitality workers across the nation switched industries, followed by about 20 to 25 percent in the agricultural, transportation, wholesale and retail sectors.⁶⁶

Work Tasks and Skills Changes

Among the fastest growing occupations, the majority will require skills or formal education beyond the high school level. Furthermore, research has found even for the same jobs, skill requirements are evolving over time. A 2012 study of the types of tasks conducted by retail cashiers identified that the frequency of non-routine,

interactive tasks requiring higher-level social skills nearly doubled. In contrast, more routine, repeated tasks decreased by 67%.⁶⁷ The chart below underscores how workers with greater human capital are more in-demand for an economy where services and cognitive tasks are more essential to everyday work:

Change in Frequency of Job Tasks Needed by Employers in a 50-Year Period⁶⁸



All stakeholders including students, employers and training institutions must work together to continually refresh and update models of retraining. Gaining skills is undoubtedly important,

but for better improvement in employment outcomes, the skills that are most desired in the employment market must be understood well and updated when necessary.

The Way Forward: Six Workforce Investment Practices Used in Oklahoma:

1. Build Cross-Agency Partnerships

- The Oklahoma State Department of Education and the Statewide Council of Workforce and Economic Development are working together to advance a goal of 100% of students entering high school with Individualized Career Academic Plans (ICAPs).⁶⁹
- The Oklahoma Department of Corrections, Oklahoma Department of Juvenile Affairs and the CareerTech system collaborate to serve 1,541 justice-involved individuals across 16 Skills Centers Campuses.⁷⁰

2. Identify Industry Sectors and Engage Employers

- Sector strategies to engage employers have included quarterly meetings and formation of advisory councils from industry professionals in aerospace, construction and energy.
- Central Oklahoma partners have engaged military and federal contractors for hiring events and strategic planning to benefit regional job seekers.

3. Design Education and Training Programs

- Oklahoma State University - OKC has invested in workforce training programs for several emerging industries in the construction and energy fields through close partnerships with local corporations such as OG&E.
- The Oklahoma Department of Career and Technology Education has expanded course offerings in aerospace that can result in higher-wage, high-demand pathways in trades such as aviation mechanics, welding and computer-aided design.

4. Identify Funding Needs and Sources

- Oklahoma's Office of Workforce Development secured \$1.06 million in Apprenticeship State Expansion Grant funds in 2019.⁷¹ The grant invests public and private dollars in apprenticeships and recruitment opportunities for skilled manufacturing and construction occupations.
- Through ongoing funding and expansion, the number of apprentices employed in Oklahoma increased 16% in 2019.

5. Align Policies and Programs

- The Central Oklahoma Workforce Innovation Board's cross-sector partnerships are enabling greater coordination and course offerings that meet the demands of employers.
- Organized labor, educational institutions and companies are creating a more functional system by identifying common career pathway definitions and standards for apprenticeship.

6. Measure System Change and Performance

- The Central Workforce Innovation Board's program performance metrics are published across several demographic groups via their online Workforce Innovation and Opportunity Act dashboard.
- The Oklahoma Department of Career Tech publishes annual metrics for each campus to measure performance and monitor student outcomes.





FINAL THOUGHTS

Employment has a profound, long-term impact in the life of an individual. One of the best improvements a person can make towards their well-being is to gain stable employment. A vision to secure work opportunities can be achieved through better understanding skills gaps, types of human capital and human services partnerships placing a priority on development instead of deficits. As the economy recovers from the seismic changes observed in the pandemic, employers will rely more on human capital to drive creativity and efficiency in all aspects of their business. United Way of Central Oklahoma will continue to leverage the experience and resources of all available partners to reach higher levels of human capital for the community to thrive.

REFERENCES

1. Becker, Gary, S. Investment in Human Capital: A Theoretical Perspective. *Journal of Political Economy*. 70: 9-49. 1962.
2. The World Bank. The Human Capital Index (HCI) 2020. [Online] <https://www.worldbank.org/en/publication/human-capital>
3. Annie E. Casey Foundation, Oklahoma Policy Institute. [Online] 2021. <https://www.aecf.org/interactive/databook?l=40>
4. National Science Foundation. Postsecondary Degree Holders among Individuals 25-44 Years Old. <https://nces.nsf.gov/indicators/states/indicator/postsecondary-degree-holders-per-25-44-year-olds>
5. Tejada-Vera B., Salant B, Bastian B. U.S. Life Expectancy by State and Sex for 2018. National Center for Health Statistics. [Online] 2021. <https://www.cdc.gov/nchs/data-visualization/state-life-expectancy/>
6. Bureau of Labor Statistics. Table 2, Long run labor productivity and related data, private nonfarm sector. Productivity by State – 2020. [Online] 2021. <https://www.bls.gov/news.release/prin4.nr0.htm>
7. Finch, E. Wilson. Adult Learners: Activating Prior Knowledge and Acquiring New Skills. Investing In America's Workforce, Volume 2: Investing in Work. 2018. <https://www.investinwork.org/-/media/Project/Atlanta/IAW/Files/volume-one/Adult-Learners-Activating-Prior-Knowledge-and-Acquiring-New-Skills.pdf>
8. Fernandes-Alcantara, Adrienne, L. Vulnerable Youth: Background and Policies. Congressional Research Service. [Online] 2020. <https://crsreports.congress.gov/product/pdf/download/RL/RL33975/RL33975.pdf/>
9. Oklahoma EDGE: Individual Career Academic Plan – Oklahoma State Department of Education. [Online] 2017. <https://sde.ok.gov/sites/default/files/documents/files/What%20is%20ICAP.pdf>
10. US Census Bureau. 2015-2019 American Community Survey – B14004 Sex by College or Graduate School Enrollment by Type of School by Age for the Population 15 Years and Over.
11. Burke, Amy. US S&E Workforce: Definition, Size and Growth. [Online] 2019. <https://nces.nsf.gov/pubs/nsb20198/u-s-s-e-workforce-definition-size-and-growth>
12. National Center for Education Statistics. IPEDS Data Explorer: Bachelor's degrees conferred by post secondary institutions, by field of study: 2017-2018. [Online] 2020. <https://nces.ed.gov/ipeds/Search?query=bachelor%27s>
13. Yiou, Yi-Hwa. A capital framework for professional learning and practice. *International Journal of Educational Research*. 100. [Online] 2020. <https://dx.doi.org/10.1016/j.ijer.2019.101527>
14. Freeland Fisher, Julia. How to get a job often comes down to one elite personal asset, and many people still don't realize it. CNBC. 2019. [Online] <https://www.cnbc.com/2019/12/27/how-to-get-a-job-often-comes-down-to-one-elite-personal-asset.html>
15. Gines, D., Sampson, R. Building Entrepreneurship Ecosystems in Communities of Color. Federal Reserve Branch of Kansas City. [Online] 2019. <https://www.kansascityfed.org/documents/7298/ecosystembuildingincommunitiesofcolor062019.pdf>
16. Liou, Yi-Hwa. 2020.
17. Liou, Yi-Hwa. 2020.
18. Concepts and Definitions. Bureau of Labor Statistics. [Online] 2020. <https://www.bls.gov/cps/definitions.htm>
19. Angrist, et al. Measuring human capital using global learning data. *Nature*. 592.403-408 [Online] 2021. <https://www.nature.com/articles/s41586-021-03323-7>
20. Angrist, et al. 2021.
21. Oklahoma Office of Workforce Development. Oklahoma Works - Hire an Apprentice. [Online] 2021. <https://www.apprenticeshipsok.com/businesses>
22. Oklahoma State Regents for Higher Education. Fast Facts. [Online] 2021. <https://okhighered.org/index.shtml>
23. 2019 Annual Report, Degrees of Progress: The State of Higher Education in Oklahoma. [Online] 2020. <https://okhighered.org/studies-reports/annual-report/annual-report2019.pdf>
24. Weinstock, Lida, R. Introduction to the U.S. Economy: Productivity. Congressional Research Service. <https://crsreports.congress.gov/product/pdf/download/IF/IF10557/IF10557.pdf/>
25. National Center for Science and Engineering Statistics. Table 3-1, S&E Graduate Students, by field, sex, degree, citizenship, ethnicity and race: 2018. [Online] 2020. <https://nces.nsf.gov/pubs/nsf21321/data-tables>
26. Oklahoma Office of Workforce Development. Oklahoma Talent Pipeline Report. [Online] 2019. <https://oklahomaworks.gov/wp-content/uploads/2019/04/OK-Talent-Pipeline-Report-2019v2.pdf>
27. Oklahoma Office of Workforce Development. Governor's Council for Workforce And Economic Development Strategic Plan. [Online] 2019. <https://oklahomaworks.gov/wp-content/uploads/2019/09/GCWED-Strategic-Plan-2019-22-FINAL.pdf>
28. Authors analysis of Current Population Survey microdata, access at U.S. Census Bureau. <https://data.census.gov>
29. Oklahoma Employment Security Commission. Occupations by Area, OES. <https://oklahoma.gov/oesc/labor-market/wage-occupation-and-industry-reports.html>
30. Bureau of Labor Statistics. Occupational Employment and Wages in Oklahoma City – May 2019. [Online] 2020. https://www.bls.gov/regions/southwest/ok_oklahomacity_msa.htm
31. Central Oklahoma Workforce Innovation Board. COWIB's 4-Year Local Plan. [Online] 2021. <https://cowib.org/wp-content/uploads/2021/08/2021-Local-Plan-1.pdf>
32. Central Oklahoma Workforce Innovation Board. COWIB's 4-Year Local Plan.
33. US Department of Labor. Career Pathways Toolkit: An Enhanced Guide and Workbook for System Development. [Online] 2017. https://careerpathways.workforcegps.org/resources/2016/10/20/10/11/Enhanced_Career_Pathways_Toolkit
34. Oklahoma Employment Security Commission. <https://oklahoma.gov/oesc/labor-market/current-employment-statistics.html>
35. Authors analysis of Current Population Survey microdata, access at U.S. Census Bureau. <https://data.census.gov>
36. Bureau of Labor Statistics. Concepts and Definitions. 2020.
37. Stevenson, Betsey. The Initial Impact of COVID-19 on Labor Market Outcomes Across Groups and the Potential for Permanent Scarring. The Hamilton Project. 2020. [Online] https://www.brookings.edu/wp-content/uploads/2020/07/Stevenson_LO_FINAL.pdf
38. Vital Signs – Aging in Central Oklahoma – Social Capital among Seniors. [Online] 2020. <http://www.unitedwayokc.org/wp-content/uploads/2020/06/United-Way-Vital-Signs-Whitepapers-05.27.pdf>
39. Hegness, M.; Parents Juggle Work and Child Care During Pandemic. U.S. Census Bureau. 2020. <https://www.census.gov/library/stories/2020/08/parents-juggle-work-and-child-care-during-pandemic.html>
40. Seven charts that show COVID-19's impact on women's employment. McKinsey & Company. [Online] March 8, 2021. <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/seven-charts-that-show-covid-19s-impact-on-womens-employment>
41. Note: Working age women defined as female adults age 25-54. Parents include all workers with a related child living in the same home. Authors analysis of Current Population Survey Microdata, access at U.S. Census Bureau. <https://data.census.gov>
42. Metzger, Steve. Oklahoma hospitals in 'critical condition'. *The Journal Record*. [Online] April 7, 2020. <https://journalrecord.com/2020/04/07/oklahoma-hospitals-in-critical-condition/>
43. Oklahoma Department of Career and Technology Education. Oklahoma CareerTech part of effort to help nurses return to field faster. <https://www.okcareertech.org/news/press-releases/2021/oklahoma-careertech-part-of-effort-to-help-nurses-return-to-field-faster>. [Online] 2021.
44. Elwell, Marcus. OKC Velocity – OKC Metro Sees Lowest Unemployment in More than 30 Years. [Online] November 12, 2021. https://www.velocityokc.com/blog/economy/okc-metro-sees-lowest-unemployment-in-more-than-30-years/?back=super_blog
45. Greater Oklahoma City Economic Development. Aviation and Aerospace. [Online] 2020. <https://www.greateroklahomacity.com/industries/aviation-and-aerospace/>
46. Greater OKC Chamber. OKC Velocity – OKC's Warehouse and Distribution Sector Thriving, E-Commerce Playing Pivotal Role. [Online] 2021. <https://www.okcchamber.com/index.php?src=news&refno=1799&category=Oklahoma%20City&contentVis=true>
47. Long, Eric. Analysis of Economic Modeling data (EMSI 2021.3) Oklahoma. Greater OKC Chamber - Economic Conditions Summary. 2021.
48. Bureau of Labor Statistics. Employed persons who teleworked or worked at home for pay at any time in the last 4 weeks because of the coronavirus pandemic by selected characteristics. [Online] 2021.



49. Quillian, Lincoln et al. Hiring Discrimination Against Black Americans Hasn't Declined in 25 Years. *Harvard Business Review*. [Online] 2017. <https://hbr.org/2017/10/hiring-discrimination-against-black-americans-hasnt-declined-in-25-years>
50. Bureau of Labor Statistics. Employment status of the civilian non-institutional population 25 years and over by educational attainment, sex, race and Hispanic or Latino ethnicity. [Online] 2021. <https://www.bls.gov/web/empsit/cpseea17.htm>
51. American Psychological Association. Disability & Socioeconomic Status. [Online] 2010. <https://www.apa.org/pi/ses/resources/publications/factsheet-disability.pdf>
52. Oklahoma City Convention and Visitors Bureau. VisitOKC - OKC Facts & Numbers. [Online] <https://www.visitokc.com/media/okc-facts-numbers/>
53. US Census Bureau. 2019 American Community Survey - Means of Transportation to Work. <https://data.census.gov>
54. US Census Bureau, 2021.
55. Durose, Matthew; Antenangeli, Leonardo. Recidivism of Prisoners Released in 34 States in 2012: A 5-Year Follow-Up Period (2012-2017). Bureau of Justice Statistics. [Online] 2021. <https://bjs.ojp.gov/library/publications/recidivism-prisoners-released-34-states-2012-5-year-follow-period-2012-2017>
56. Substance Abuse and Mental Health Administration. 2019 National Survey on Drug Use and Health: Veterans. [Online] 2019. <https://www.samhsa.gov/data/sites/default/files/reports/rpt31103/2019NSDUH-Veteran/Veterans%202019%20NSDUH.pdf>
57. McDaniel, Kaylee. Velocity OKC - Chamber Releases Fair-Chance Hiring Toolkit. [Online] 2021. <https://www.velocityokc.com/blog/economy/chamber-releases-fair-chance-hiring-toolkit>
58. Oklahoma. US Census Household Pulse Survey.
59. Hope Research Center, University of Oklahoma – Tulsa. Hope Research Center. [Online] 2020. <https://www.ou.edu/tulsa/hope>
60. Mental Health Association of Oklahoma. Suicide Prevention Training – QPR. [Online] <https://mhaok.org/suicide-prevention-training-qpr>
61. Oklahoma Works - Local Workforce Development Boards. [Online] 2021. <https://oklahomaworks.gov/local-workforce-development-boards/>
62. Fisher, Nate. Apprenticeship programs an effective 'Old and New' option for many types of businesses with workforce concerns. [Online] 2021. https://www.velocityokc.com/blog/economy/apprenticeship-programs-an-effective-old-and-new-option-for-many-types-of-businesses-with-workforce-concerns/?back=super_blog
63. Oklahoma Works. June 2021 Apprenticeship Webinar and Presentation. [Online] 2021. <https://www.youtube.com/watch?v=kBDD72F6aSo>
64. Registered Apprenticeship National Results Fiscal Year 2020. US Department of Labor. [Online] 2021. <https://www.dol.gov/agencies/eta/apprenticeship/about/statistics/2020>
65. Goodwill Apprenticeship Skills Transition Throughout Retail Industry. [Online] 2020. <https://www.apprenticeshipsok.com/post/goodwill-apprentice-skills-transition-throughout-retail-industry>
66. Edelberg, Wendi. The Critical Role of Workforce Training in the Labor Market Recovery. [Online] 2021. https://www.hamiltonproject.org/blog/the_critical_role_of_workforce_training_in_the_labor_market_recovery
67. Saenz, Alexander. Work has transformed in the United States...just not how you think it has. *Monthly Labor Review*. Bureau of Labor Statistics. [Online] 2021. <https://www.bls.gov/opub/mlr/2021/beyond-bls/pdf/work-has-transformed-in-the-united-states-just-not-how-you-think-it-has.pdf>
68. Chart adapted from dataset in Atalay, E, et al. The Evolution of Work in the United States. *American Economic Journal: Applied Economics*. [Online] 2020. <https://www.aeaweb.org/articles?id=10.1257/app.20190070>
69. Oklahoma Office of Workforce Development. Governor's Council for Workforce and Economic Development Strategic Plan.
70. Oklahoma Department of Career and Technology Education. Career Tech Skills Centers. [Online] 2020. <https://www.okcareertech.org/about/careertech-system/delivery-arms/skills-centers/skills-centers>
71. Oklahoma Works. Oklahoma 2019 Accomplishments. [Online] 2020. <https://oklahomaworks.gov/oklahomaworks-2019-accomplishments/>

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This edition of Vital Signs was published in December 2021 and utilized vetted data prior to October 2021.

As with many other current societal factors, human capital information is incredibly fluid while employers, citizens and communities adjust to the rapidly changing effects of the COVID-19 pandemic. United Way of Central Oklahoma's research team is committed to only presenting reviewed and vetted data to accurately provide readers with a wider scope of the human capital challenges and opportunities facing central Oklahoma.

United Way will continue to monitor reviewed data and certified reports on human capital in our community. We encourage you to visit unitedwayokc.org/research for updated data and reports as they become available.

VITAL SIGNS

Central Oklahoma

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