

2022 STATE OF THE ST. LOUIS

WORKFORCE

The Pathway to Job Growth



St. Louis Community College

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FOREWORD

After two years of pandemic and economic uncertainty, we are all seeking something to serve as a compass or a guide for planning. How should we move forward, given that so many things have changed?

The *State of the St. Louis Workforce* report brings the perspective of 14 years of data on the economy and employer needs. It has captured the recovery from the Great Recession a decade ago, the economic jolt of the COVID-19 pandemic, and now the uncertain economic recovery that we face today. The current data looks similar to pre-pandemic numbers on initial examination, but further review reveals changes in our workforce, our employer needs, and our region. We are very pleased to present this 2022 *State of the St. Louis Workforce* report as a compass for ourselves and for you to understand the workforce trends and needs of our region.

This year's report will strive to point out the areas of COVID recovery in the St. Louis workforce, as well as what has changed. The unemployment rate in the United States has continued to drop from last year's 5.9% to 3.5%, identical to the pre-COVID unemployment rate in February 2020. There are, however, an equal number of people that are classified as "discouraged workers" – 3.5% of workers that want a job but are no longer actively looking for one. That amounts to 5.7 million people in the U.S., which is slightly higher than the 5 million discouraged workers that existed pre-COVID.

There are also more long-term unemployed workers. About 22.6% of unemployed workers have been unemployed for more than 27 weeks. That accounts for 1.3 million Americans, 200,000 people more than in February 2020.

At a time when the tight labor market is starting to limit productivity, moving another 3 to 4% of workers into the market would be helpful. The low unemployment rates and high number of worker transitions with the Great Resignation have given individual workers stronger negotiating power for wages and work arrangements. For an individual worker, this may create a better opportunity for economic prosperity. Taken as a whole across the workforce, however, the increase in wages is translating to higher prices and contributing to record-setting inflation. Likewise, limits on productivity as a result of the labor shortage is putting pressure on the supply chain, causing a shortage of goods and services that can't keep up with demand. Higher demand forces prices higher, again feeding inflation.

Imagine if we could resolve the issues keeping the 5.7 million discouraged workers on the sidelines and invite them back into the economy. The reasons sidelining these workers are many, and the solutions for both workers and employers are just as varied: creating affordable childcare options, addressing transportation needs, training for new skills, extending the warm introduction to a new job lead, considering a nontraditional



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or justice-involved worker, and expanding the range of recruiting sources. The list is endless.

While many issues are too big for any one individual to address, we can take actions to impact the hiring practices in our organizations and our connections with friends and neighbors. Make the introduction for a job opportunity. Challenge your organization to reevaluate hiring requirements. Share information about your job or industry. Encourage the exploration of training options. These actions could change someone's path back to the workforce.

St. Louis Community College's mission focuses on three key pillars: preparing students for transfer to four-year universities, creating lifelong education for our community, and educating students to directly enter the workforce in the core industries of the St. Louis region. We continually expand our range of partnerships to reach more students and workers, and to provide that next step to get someone engaged in training, education, and a new career.

The *State of the St. Louis Workforce* report again will focus on the composite employment trends of the region. Rather than inserting a deep sector focus in alternating years, the annual report will be a comprehensive overview of the regional economic and workforce trends. Going forward, we will be partnering with other organizations throughout the year to highlight trends in specific industries that are key to the region, and therefore key to STLCC's education and training efforts. This report includes highlights on emerging areas of our regional economy, including a discussion of the impact of geospatial jobs, startup job creation, and the effect of immigration on our workforce. Our support of industry focus extends to our **STLCC Transformed** construction of eight new buildings, bringing cutting edge training facilities to our region's workforce in healthcare, IT, transportation, culinary arts, and manufacturing.

The 2022 *State of the St. Louis Workforce* report continues to be supported by the partnership of our region's top economic and workforce institutions. Along with the assistance of our longtime partners at the Missouri Economic Research and Information Center (MERIC), we appreciate the collaboration with Nine PBS, the Federal Reserve Bank of St. Louis, and the *St. Louis Business Journal*. We also appreciate the continued support of our workforce development collaborators, including the Regional Business Council and the Missouri Chamber of Commerce and Industry, for their involvement in this report.

The report includes labor market information from public sources such as the Bureau of Labor Statistics and the Census Bureau. Additional information is provided by analytical tools such as Chmura JobsEQ and Lightcast to provide insight on trends and forecasts. We would like to thank and acknowledge our employers, our research partners, and our media partners, without whom we would not be able to bring this informative report to the region. We hope that you find the report valuable and use its findings for the benefit of your organization and our community.

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The Future of Job Growth



For the first time in three years, we can examine the St. Louis workforce beyond the immediate impact of the COVID-19 pandemic. The annual *State of the St. Louis Workforce* report supplies institutions, organizations, and individuals with a clearer picture of our region's primary asset: our workers. In addition to the data shared, this report brings together key perspectives that offer insight into the trends that are impacting our region. By assembling the region's best data and expertise, St. Louis Community College is uniquely positioned to identify employer trends, forecast the future, and help the region move forward by meeting workforce needs directly, in the form of certificates, training, programs, and associate degrees; and indirectly, by convening stakeholders, providing data, and preparing students to transfer to four-year universities.

It is more important than ever that employers, educators, and workers understand the emerging areas of our regional economy. This report will highlight three key topics that impact St. Louis now and that will continue to influence our economy for the foreseeable future: geospatial, startups, and immigration. For all the attention they receive in the media, they remain buzzwords and a mystery for most of us.

Each of these topics has changed significantly: two are newer industries that have experienced amazing growth in the last two decades, and one has been highly impacted in recent years by pandemic and political forces. All are frequently misunderstood in terms of the skills needed, the breadth of the possibilities for workers, and the potential impact on the city. Each deserves to be explored and understood for its effect on our region and its workforce. We hope that this report and the panel discussion will bring a greater understanding of these key aspects of the St. Louis region's future.

Geospatial, startups, and immigration: for all the attention they receive in the media, they remain buzzwords and a mystery for most of us

Three individuals were selected to shed light on these key areas: Andy Dearing, president, Spatial STL Advisors and project lead for the GeoFutures Initiative; Betsy Cohen, executive director of the St. Louis Mosaic Project; and Dr. Danish Nagda, CEO and founder of Resilient Health, a technology-enabled healthcare startup. These individuals give us a better understanding of their industries and help demystify the impact that geospatial technology, immigration, and startups have on the workforce in St. Louis.

Focus: Geospatial

Andy Dearing - President, Spatial STL Advisors; Project Lead, GeoFutures Initiative

We all see headlines about the construction of the new \$1.75 billion National Geospatial-Intelligence Agency (NGA) West headquarters north of Downtown St. Louis and the importance of geospatial technology, but how does that translate to skills and jobs? Geospatial technology, also known as location sciences, is a specialized area of the tech sector. While most of the media focus is on the NGA and its defense industry contractors, current technology and the expanded capacity for analyzing the volumes of data that it produces have launched geospatial technology into new uses across many industries.

The broader St. Louis geospatial industry supports 27,000 jobs and includes over 350 companies and organizations

Today, the NGA, with approximately 3,700 jobs, is one of the St. Louis region's largest employers. The opening of the expanded facilities in 2025 will prompt a small number of new hires. Beyond the NGA's impact on the region, it is important to understand that the broader St. Louis geospatial industry supports 27,000 direct and indirect jobs, includes over

350 companies and organizations, and produces a \$5 billion economic impact.

The GeoFutures Strategic Roadmap, released in 2020, captures the full geospatial ecosystem taking shape in St. Louis, as well as outlines a range of efforts needed to grow the industry here. In addition to the NGA, major geospatial employers like Maxar, Leidos, and GDIT are locating offices here. The startup and innovation community has funders like Arch Grants and Cultivation Capital deliberately creating geo-focused funding opportunities. Incubators offer space, services, and support for entrepreneurs. T-REX houses a Geospatial Innovation Center alongside Moonshot Labs, a collaboration with the NGA — the first ever unclassified innovation space for NGA professionals to work with community colleagues. The Taylor Geospatial Institute, housed at Saint Louis University, advances geospatial science through the collaboration of eight of the Midwest's leading research institutions. More efforts are shaping the sector from talent pipeline to alignments with major industry sectors, such as agtech and transportation.

Andy Dearing is working in a field that barely existed 20 years ago, and business is booming. Geospatial technology encompasses a wide range of applications in government and private sectors and serves as the high-tech intersection of geography and mapping. As the leader of the GeoFutures Initiative in St. Louis, Dearing is helping build an inclusive growth strategy to make St. Louis the premiere global geospatial hub outside of Washington, D.C.

Often, when people hear of geospatial technology and the jobs created in that field, there is little understanding of the breadth and depth of this evolving sector. It's easy to assume that geospatial employment is reserved for highly educated workers in the defense industry. Dearing explains that this industry is made up of a robust, diverse

workforce meeting the needs of a variety of sectors including agriculture, public health, architecture, and construction.

While much of the work that will take place at the new NGA complex in St. Louis is federal- and defense-related, there are unlimited opportunities to weave geospatial technology into the private sector. Indeed, there already are numerous applications that we don't think of as geospatial, such as Google maps, drones in agriculture, and unmanned fleet operations. All of these are based on location science technology.

While the NGA itself may not initially engage in a significant amount of hiring as it moves across town to its new location, the ripple effect on the economy will be significant, according to Dearing. That includes everything from the restaurants, dry cleaners, and retail ecosystems that will naturally crop up around the campus, to the subcontractors and partner companies in technology fields that will do business with the NGA.

"Today you have companies that are wanting to plug in," Dearing says. "GDIT (General Dynamics Information Technology) is a great example. They're saying: 'We're going to come here and set up jobs. We're going to create an office in the Innovation district. We're going to give back to the community,' which is a different pattern than we've seen. You're starting to see them also cluster around NGA in an effort to build a collaborative environment. Our new Innovation campus is going to be 40 percent unclassified, and that unclassified space is meant for collaboration with industry partners, along with academic partners.

"What's really exciting are the limitless possibilities for geospatial in the private sector."

"What's really exciting are the limitless possibilities for geospatial in the private sector," Dearing continues. "In terms of workforce, geospatial is a sub-category of tech, which is one of our region's largest employment sectors. There will continue to be strong job growth in general tech skills, in fields that didn't exist 20 years ago."

Demand in job categories such as computer programming and engineering – as well as data analysis, data tech, and data science – will continue to grow. The geospatial category will see demand in jobs that don't require an advanced degree or even a four-year degree. Entry-level positions include data entry for artificial intelligence (AI) applications such as data labeling. Once these items are labeled, AI can assist in identifying them in videos, images, and healthcare imaging for better disease management; drone operation in precision agriculture; and the operation of unmanned vehicles or sensors in logistics, construction, and mining.

Looking ahead, Dearing sees tremendous opportunity for Diversity, Equity, and Inclusion (DEI) in the geospatial ecosystem. It is a new sector, and as the industry looks to scale up, Dearing has seen a strong commitment from tech executives around the country to create a diverse workforce. He sees that commitment in St. Louis, too.

“A diverse, skilled workforce is what we’re hearing resonate from executives,” Dearing explains. As DEI programs have developed here, companies have said: ‘St. Louis has something different, and we’ll move jobs or move requisitions to tap into that, because they’re giving me the tech talent that we need, and we’re also able to meet our diversity goals in the process.’ So that’s different from what we heard five or ten years ago.”

From a growth perspective, Dearing sees untapped potential in the finance and insurance sectors. Geospatial technology will be a useful tool in insurance, such as with floodplain risk mapping, precision insurance, and using satellite imagery to assess changes and damage.

Focus: Immigration and Foreign-Born Individuals

Betsy Cohen - Executive Director, St. Louis Mosaic Project, a program of the nonprofit World Trade Center-St. Louis within the St. Louis Economic Development Partnership

St. Louis is devoting itself to be a welcoming home for immigrants with the arrival of Afghan and Ukrainian families. The full impact of immigrants on our region and our workforce is rarely understood, as the full picture includes more than political refugees. St. Louis’ corporate community is also home to many foreign-born workers. Introducing their families to the community is a key part of determining how long a new worker may choose to stay in the region. The numbers of international students at our colleges and universities are returning after being affected by COVID-19 travel policies. Overall, St. Louis has a range of support organizations for immigrants, a network that is striving to more quickly connect these new workers to jobs.

Understanding the role immigration plays in St. Louis’ workforce is key to seizing opportunities and addressing challenges. For too long, misperceptions have permeated the discussion around immigration, including the notion that immigration will solve our workforce needs, or conversely, that immigration is producing a glut of unskilled workers and is a burden on civic organizations. Betsy Cohen provides clarity on these topics, along with sharing recent visa changes that are new to many employers.

As executive director of the St. Louis Mosaic Project, Betsy Cohen sees firsthand the benefits that St. Louis reaps from its varied and diverse immigrant population. This immigrant population offers a vast range of life experiences, education, and skills. Some are international students looking to remain in the area and use their expertise upon graduation, while others are international executives who have been recruited by St. Louis-area companies. Still others are refugees who arrived in St. Louis with little notice. With assistance such as that provided by the Mosaic Project and other area organizations, these immigrants are able to contribute to and participate in the region’s economic growth.

“We are back in a growth mode post-COVID,” Cohen says. “Because we have so many fine universities here, as a region we over-index on international students, with more than half of those in STEM fields. We also over-index on refugees compared to other locations around the country. So, with international students coming again, and with refugees coming again, and with our foreign policy decision to bring people here from Afghanistan, as well as the Ukrainian people starting to arrive, we are back on a growth mode with new additions to our community.”

“We are back on a growth mode with new additions to our community.”

There are misperceptions—some positive and some negative—about the immigrant workforce in the area, as well as nationwide.

For example, Cohen notes that employers often shy away from hiring recent graduates because the employers don’t realize that students in STEM fields can work in the U.S. on a student visa for three years after graduation, by which time they can more successfully obtain an employment visa. In terms of refugees, there is an assumption that refugees arrive with low-level skills, and often that’s not the case. They might have language challenges to overcome, but they can be gainfully employed while they work to master English and often to reestablish professional credentials. Prior to landing on U.S. soil, many Afghan refugees have gained valuable experience working for the U.S. military.

Much of what Cohen and organizations such as the Mosaic Project and the International Institute do is help the foreign-born navigate the labyrinth of challenges to become productively employed. Cohen cites the example of a woman who was a doctor in Afghanistan who cannot practice medicine here because of certification and other challenges. But she is a valuable asset in a hospital setting in other roles, and Mosaic was able to help her make a personal connection and find that spot. Mosaic also helps applicants navigate the corporate online application process, which often automatically rejects a candidate because it doesn’t recognize a university name from another country, or a postal code from a previous employer in another country. Again, Mosaic is able to reach out to a contact and help make a personal introduction.

“I think one of the best ways our community can benefit from the foreign born is to keep an open mind to some of the non-traditional backgrounds that some of our newest foreign-born people are bringing to our community and workforce,” Cohen says. “Be open to some connections where someone who’s a little less traditional could have the right skill set, but not make it through your tracking. Be more flexible for some of these newcomers who are coming as refugees. They just need a good start and some flexibility in the beginning as they build their lives here.”

“They just need a good start and some flexibility in the beginning as they build their lives here.”

Cohen continues: “Secondly, truly understand the STEM talent that our universities have right here in St. Louis. These are people who can work for three years under their student visa. It’s worthwhile to look into that with the career offices of our universities.”

Focus: Startups

Danish Nagda, M.D. - CEO/Founder, Resilient Health

In the past year, the headlines have been filled with stories about our region’s “unicorns” Benson Hill and Nerdy—startups that have reached the \$1 billion valuation as they went public. This is a major milestone for the St. Louis startup community. For many people, however, it may have been the first time they heard about these high-growth companies. These companies were hardly “startups” by the time they made it to Wall Street; both have grown here for a decade or more. Behind these headlines, however, is the story of the impact that Nerdy, Benson Hill, and other startups have on our regional economy. It’s challenging to imagine the number of people working for brand new companies and what industries are represented.

For the first time, the 2022 *State of the St. Louis Workforce* report includes data on startups in the region. This is a first-ever view of the data, as the robust St. Louis startup ecosystem has been plagued with data collection challenges for nearly 20 years. It is difficult data to find, and it is time consuming to collect directly from business owners. STLCC sourced seven years of data on first-year startups, providing a view of the number of startups and employees that our region creates each year. This data includes startups from all industries, and from neighborhood small businesses to high growth technology companies.

Across Missouri, nearly all net new jobs have been created by startups over the last decade—on average 35,000 new jobs annually. Now we can start to see the impact of

On average, first-year startups are creating 6,895 firms with 14,722 employees annually

startups on the St. Louis region, with first-year startups inserting 14,884 new jobs into our economy in 2021 out of the 40,544 created in Missouri. On average, first-year startups are creating 6,895 firms with 14,722 employees annually for each of the last seven years. These are first-year startups, the babies

of our economy. They are also the seeds of St. Louis’ future, the new companies that could grow into the next Nerdy or Benson Hill, or the next World Wide Technology or Enterprise Holdings. If only 1% of the new startups in St. Louis each year are on a high-growth trajectory, that is a significant impact on our region’s employment.

For perspective, Nerdy now employs about 1,000 people, with projected 2022 revenue of \$160 million. Benson Hill employs 468 people, with projected 2022 revenue of \$315 million or more. If only half of 1% of the new startups founded in St. Louis this year are on a similar high-growth trajectory, that could mean 72 companies that are each

employing over 500 employees within 10 years. That could be 36,000 jobs from those 72 entrepreneurs who took a chance to start something new. And one or two of those could continue to be an employer of thousands of people. Equally as important are the hundreds of startups that stay small, serving as employment anchors and champions in our neighborhoods. These significant impacts on our region's employment tomorrow are why it's worth taking the bet on startups today.

St. Louis is fortunate to have more companies like Nerdy and Benson Hill in the pipeline. With the expanded understanding of the impact that small businesses have on the St. Louis economy, the role of startups, from retail and services to high tech, is increasingly important. Dr. Danish Nagda, who has successfully started multiple businesses, has provided insight into the challenges and opportunities of the startup landscape in St. Louis. Additionally, he brings a unique perspective on healthcare, an industry shaken by COVID-19.

These significant impacts on our region's employment tomorrow are why it's worth taking the bet on startups today

Danish Nagda is an ear, nose, and throat (ENT) doctor and a technology entrepreneur. That places him at the leading edge of the future of healthcare. He's currently the CEO and founder of Rezilient Health, a new kind of care delivery model that taps into the growth of telehealth.

"Our main priority is to increase the utilization of primary care among employers," Nagda says. "Employers today are paying more in healthcare every year; it's often the second largest cost on their balance sheet. We make primary care accessible and convenient by delivering care a little differently. At Rezilient, patients come into the clinic the same day they make an appointment, and they get over an hour with their doctor. The doctor is able to do physical exams, labs, and imaging, but the doctor is actually not there in person. The doctor is actually on the screen, and with the help of a staff member – a cloud clinic specialist, who's often a nurse – we've taken all the devices in a normal doctor's office, put them on the internet, and we stream it."

When Dr. Nagda and his team first began creating this startup several years ago, the concept of telehealth was unfamiliar to most people. But after the COVID-19 pandemic, people's behaviors and expectations have changed and they now are comfortable with telehealth and the convenience it offers. They even expect it. At Rezilient, when a patient doesn't need a physical exam, labs, or imaging, the consultation with the doctor can be done from home, similar to what became common during the pandemic.

Recent data has confirmed what many in St. Louis have thought for some time: startups are a significant part of the local and regional economy. Today, similar to the comfort level with telehealth, entrepreneurs and lenders now are comfortable meeting each other over Zoom. That means an entrepreneur in St. Louis looking for funding can connect with venture capitalists anywhere in the country, particularly on the coasts.

While that opens significant opportunities for local startups to expand, unfortunately, it means much of the wealth generated through venture capital flows out of St. Louis, even if the startup is here.

“I think investors in St. Louis are really trying,” he says. “But I think we need to have a broader conversation around funding in this city, growth and scale in this city, and the corporates and how comfortable they are doing business with the startups. For example, if you're in Austin, you expect to be doing business with all the major companies locally. If you're in Charlotte, or Raleigh, or Minneapolis, you're expecting to work with the big companies there.”

When entrepreneurs succeed and create wealth, they often turn around and become investors in other startups, Dr. Nagda says. So as St. Louis creates more entrepreneurial wealth, local funding for startups may begin to flow more freely.

Nagda also notes that startups in St. Louis benefit from the area's strength in the service sector, especially now that remote work has become more common. An employee with tech expertise can be located in a different city and work remotely for Rezilient, for example, but the “live people” who work in the Rezilient office, or cloud clinic, are harder to find.

“We have a huge talent base here in St. Louis that we just don't recognize,” Nagda says. “We are actually experts in the service industry. It's very fascinating. That's actually the hardest person to hire right now, even more than tech.”

Conclusion

The reality of the St. Louis jobs outlook can be quite different than the cursory view of the geospatial sector, startup ecosystem, and immigrant community. By looking past the hype and the headlines, we can start to understand the true needs for each. The regional investment in data and building collaborations is paying off with more information for decision making and for creating plans based on building key assets that fill needs, focusing on equitable opportunities for jobs and careers, and defining the training and educational pathways that lead to quality jobs for all of our workforce.

Additional excerpts from the interviews with the panelist are in the Q & A section of this report, followed by the bios for each speaker.

Methodology



The 2022 *State of the St. Louis Workforce* report follows the format of previous editions by including three distinct sections: the *St. Louis Economy*, a compilation of labor market information using public and proprietary sources and tools; the *Employer Survey*; and a narrative section, highlighting emerging aspects of the St. Louis region's economy.

St. Louis Economy

This section includes an analysis of available data from public sources, such as the United States Bureau of Labor Statistics and the United States Census Bureau, which describes the characteristics of the labor force and correlates unemployment with various labor force demographics. Analysis of real-time labor market demand is aggregated through the proprietary Lightcast™ tool, which searches web-based job boards to discern the level of demand for certain occupations, and the skills and certifications that employers are requesting. And regional projected job demand is examined using the *2020-2030 Occupational Projections* developed by the Missouri Economic Research and Information Center (MERIC) of the Missouri Department of Higher Education and Workforce Development.

Employer Survey

The *State of the St. Louis Workforce* report relies heavily on first-person telephonic interviews of regional employers. Each of the 2022 survey interviews averaged 20 minutes to complete. As shown in the table on the following page, 436 local companies in 16 industry categories were surveyed between June 8 and July 20, 2022, encompassing the 23 two-digit North American Industry Classification System (NAICS) codes that represent a composite picture of the St. Louis regional economy.

Survey respondents were asked a series of 19 questions, some with multiple parts, related to hiring trends, job applicants, and skill needs. Companies interviewed for the survey were randomly selected within each of the 16 industry categories from a categorized list of the 40,432 St. Louis Metropolitan Statistical Area (MSA) business establishments listed with five or more employees from the *Reference USA* employer database provided by the Missouri Economic Research and Information Center. This year, as in 2021, a pre-notification email was sent to announce and validate the survey prior to its start to all employers for whom email addresses were available from *Reference USA*. The survey instrument is provided as *Appendix I*.

Emerging St. Louis

This year's report highlights emerging aspects of the St. Louis region's economy with commentary by Betsy Cohen of the Mosaic Project, Andy Dearing of Spatial STL Advisors, and Dr. Danish Nagda of Resilient Health.

Our conversation explores:

- Geospatial and location science opportunities in industries beyond the National Geospatial Intelligence Agency (NGA) and defense industry.
- The impact of immigration on the St. Louis workforce and steps that local organizations are taking to make the region attractive to immigrants.
- Trends in healthcare with new technology and changing consumer expectations post-COVID-19.
- Insights on the St. Louis' startup community and the challenges of starting a business and raising capital in uncertain times.
- New data highlighting the number of companies and jobs created by first year startups in the St. Louis region.

2022 State of the St. Louis Workforce Employer Survey

NAICS	Category Description	Businesses Surveyed	Percent
NAICS 23	Construction	31	7.1%
NAICS 31-33	Manufacturing	24	5.5%
NAICS 42	Wholesale trade	20	4.6%
NAICS 44-45	Retail trade	62	14.2%
NAICS 48-49	Transportation and warehousing	11	2.5%
NAICS 51	Information	12	2.7%
NAICS 52	Finance and insurance	22	5.1%
NAICS 53	Real estate and rental and leasing	10	2.3%
NAICS 54	Professional and technical services	40	9.2%
NAICS 56	Administrative and waste services	14	3.2%
NAICS 61	Educational services	7	1.6%
NAICS 62	Health care and social assistance	69	15.8%
NAICS 71	Arts, entertainment, and recreation	12	2.7%
NAICS 72	Accommodation and food services	54	12.4%
NAICS 81	Other services	43	9.9%
	Other small sectors and Unclassified*	5	1.2%
Total		436	100.0%

(*) Other small sectors with Less than 1% of STL MSA Establishments:
 NAICS 11 Agriculture, forestry, fishing and hunting
 NAICS 21 Mining, quarrying, and oil and gas extraction
 NAICS 22 Utilities
 NAICS 55 Management of companies and enterprises

St. Louis Economy



The bi-state St. Louis Missouri-Illinois Metropolitan Statistical Area (MSA) includes St. Louis City and County and the surrounding 14 counties that straddle the Mississippi River. The St. Louis MSA has an estimated population of over 2.8 million.

According to the U.S. Bureau of Economic Analysis, in 2020, the area had a Gross Domestic Product (GDP) of \$171 billion in current dollars (not adjusted for inflation). This was a decrease from \$175 billion in 2019. This decrease is attributed to the COVID-19 pandemic. The industry with the highest GDP was finance, insurance, real estate, rental and leasing at \$37

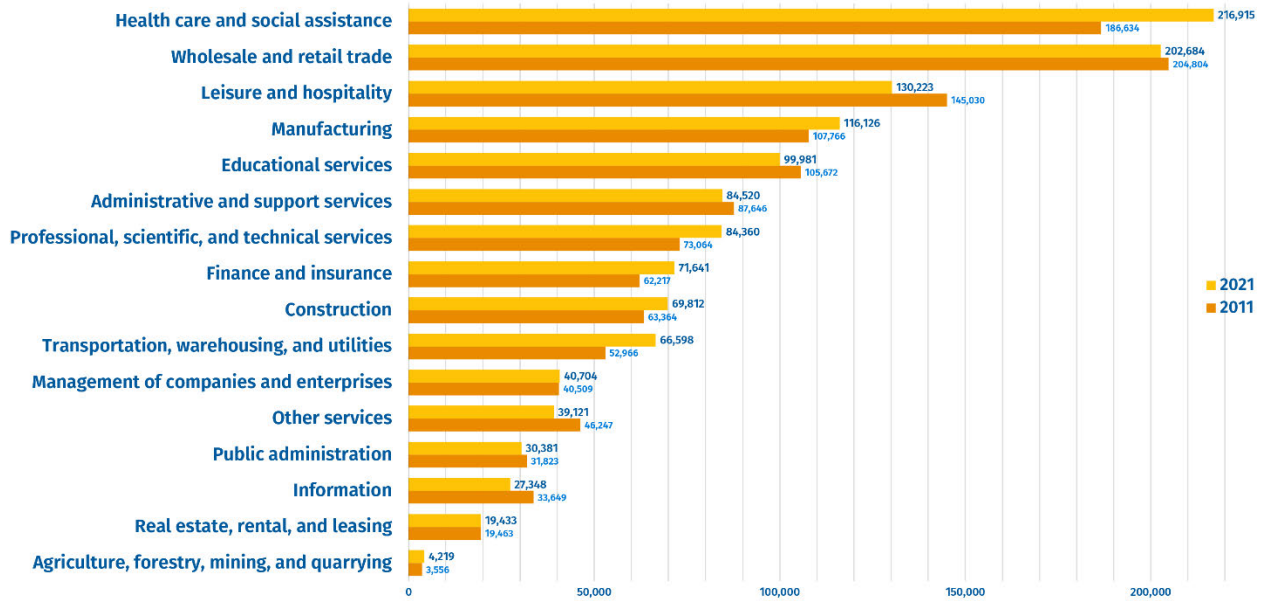
billion. Private sector businesses accounted for 90% of the region's output, while government accounted for the remaining 10%. St. Louis is home to seven Fortune 500 companies: Centene (26), Emerson Electric (199), Reinsurance Group of America (222), Edward Jones (303), Olin (393), Graybar Electric (399), and Ameren (500).



Employment

The St. Louis MSA has a diverse economy with a labor force of over 1.3 million that work in a wide range of industries. Health care and social assistance make up 17% of total employment, followed closely by wholesale and retail trade, which makes up 16% of total employment. Health care and social assistance has increased by over 30,000 workers, or 16%, over the last 10 years. Leisure and hospitality had the largest decrease, with employment declining by over 14,000, or 10%. That decrease is largely due to the effects of the COVID-19 pandemic. Even with pandemic-related employment decreases, the overall St. Louis economy increased by nearly 40,000 employees (3%) between 2011 and 2021.

St. Louis Industry Employment

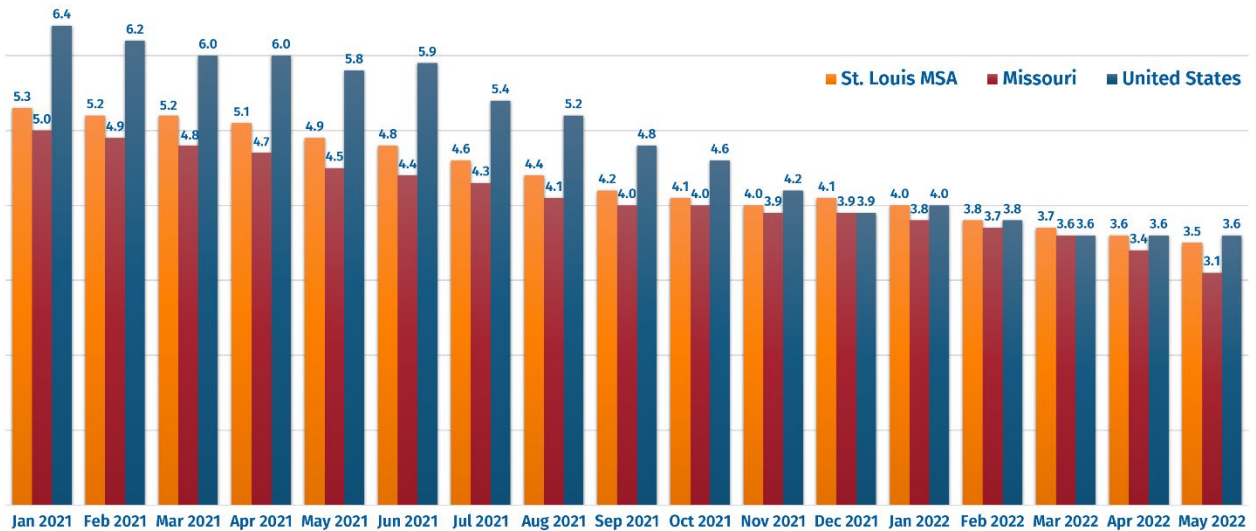


Source: Quarterly Workforce Indicators, U.S. Census Bureau, Annual Averages.

Unemployment

St. Louis MSA unemployment rates have decreased over the past year, declining from 4.8% in June 2021 to 3.5% in May 2022. This is similar to the national rate of 3.6% and higher than Missouri's unemployment rate of 3.1% for May 2022. The U.S. Bureau of Labor Statistics U3 unemployment rate measures the number of unemployed people actively seeking a job.

Seasonally Adjusted Unemployment Rate

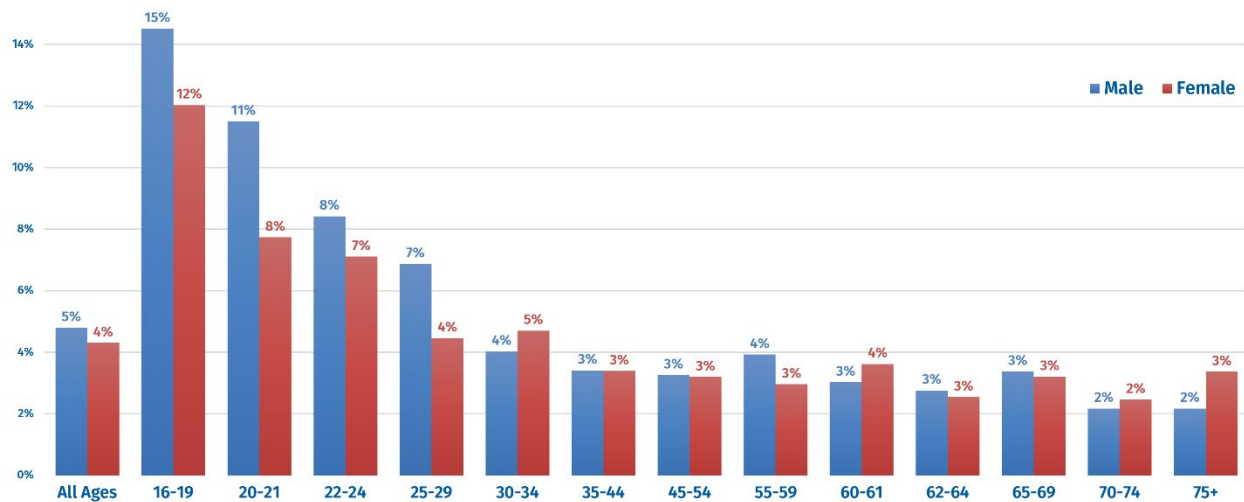


Source: U.S. Bureau of Labor Statistics, unemployment rates (UNRATE, MOUR, STLUR), retrieved from FRED, Federal Reserve Bank of St. Louis.

Unemployment Demographics

Unemployment rates vary greatly with age and sex. U.S. Census Bureau estimates indicate younger workers, particularly men under the age of 22, had unemployment rates at or above 11.5% in the St. Louis MSA during 2020. Men in the 16 to 19 age range had the highest unemployment rate at 14.5%. Unemployment rates between males and females were similar in most of the other age groups. In 2020, Missouri unemployment rates for all ages was 4.8% for males and 4.3% for females.

St. Louis MSA Unemployment Rates by Age and Sex



Source: 2020 American Community Survey 5-year estimates, U.S. Census Bureau.

St. Louis MSA data for 2020 shows that having some college or an associate degree reduces the unemployment rate by 1.6 percentage points and provides an additional \$6,130 in median earnings compared to having only a high school diploma or equivalent. A bachelor's degree or higher further reduces the unemployment rate by 1.8 points and significantly increases median earnings.

St. Louis MSA Unemployment Rates and Earnings by Education, Population 25 Years and Older

Unemployment Rates	Educational Attainment	Median Earnings
10.6%	Less than high school graduate	\$24,442
5.5%	High school graduate (or equivalency)	\$32,446
3.9%	Some college or associate degree	\$38,576
2.1%	Bachelor's degree or higher	\$64,148*

* Bachelor's (\$56,522) and graduate (\$72,040) degree medians.

Source: 2020 American Community Survey 5-year estimates, U.S. Census Bureau.

The highest unemployment rates and lowest wages belong to workers with less than a high school education. Unemployment rates for those without a high school diploma or equivalent are nearly two times higher than those with a high school diploma or equivalent, and five times higher than individuals with a bachelor's degree or higher.

Missouri Unemployment Rates and Earnings by Education, Population 25 Years and Older

Unemployment Rates	Educational Attainment	Median Earnings
9.7%	Less than high school graduate	\$25,089
5.0%	High school graduate (or equivalency)	\$31,391
3.8%	Some college or associate degree	\$35,914
1.9%	Bachelor's degree or higher	\$56,972*

* Bachelor's (\$50,856) and graduate (\$63,088) degree medians.

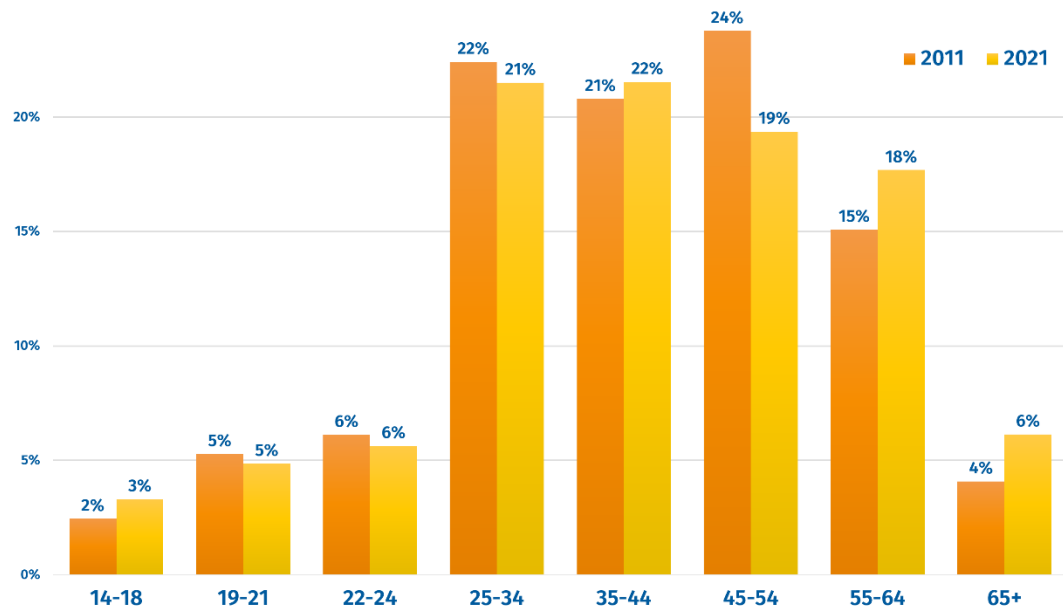
Source: 2020 American Community Survey 5-year estimates, U.S. Census Bureau.

Missouri shows similar trends, with workers who do not have a high school education having an unemployment rate of 9.7%, and a rate of 5% for high school graduates. Young and/or less educated job seekers often have a more difficult time finding quality employment.

Workforce Characteristics

In 2021, the majority of jobholders were ages 25 to 44. The 25 to 34 and 35 to 44 age groups each represented 21.5% of the workforce. The St. Louis MSA age profile has changed over time, with the 55+ age groups increasing as a share of the workforce, while the 45 to 54 age group share has decreased. The 55+ age groups have grown from 19.2% in 2011 to 24.1% in 2021. With nearly one-fourth of the workforce in the 55+ age groups, St. Louis mirrors the national trend of an aging workforce.

St. Louis MSA Age of the Workforce

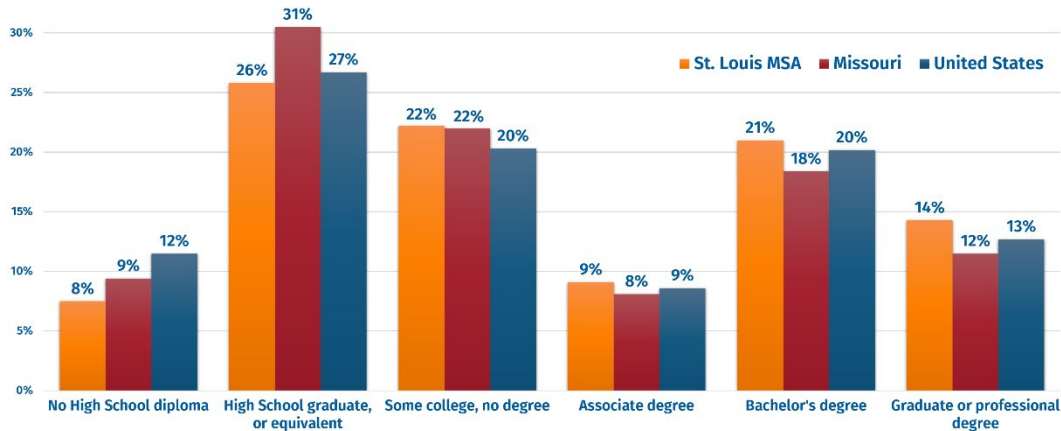


Source: Quarterly Workforce Indicators, U.S. Census Bureau.

Educational Attainment

Nearly one-half (48%) of the region’s 25-years-and-older population has a high school diploma but no postsecondary degree. This is similar to the national rate of 47% and lower than the state rate of 53%. Thirty-five percent of the St. Louis MSA population has a bachelor’s degree or greater, which is higher than both the state (30%) and national (33%) rates.

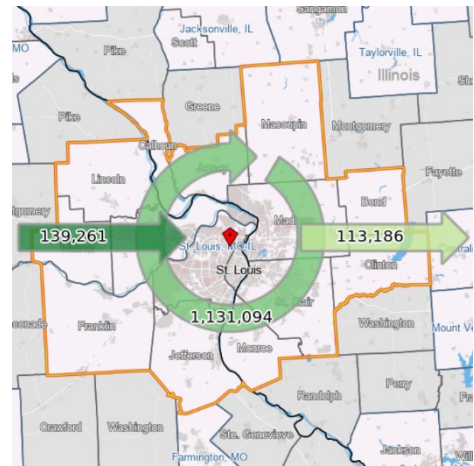
Educational Attainment of the Population



Source: 2020 American Community Survey, U.S. Census Bureau. Population age 25 and over.

Commuting

2019 estimates on public- and private-sector primary jobs from the U.S. Census Bureau showed that the St. Louis MSA employed over 1.2 million people. Most workers (1,131,094) lived and worked in the area, but 139,261 commuted into the MSA for jobs, while 113,186 of the residents commuted outside of the St. Louis MSA for work. A “primary job” is the highest paying job an individual worker has, counting one job per worker.



Commuting Distance St. Louis MSA Workforce

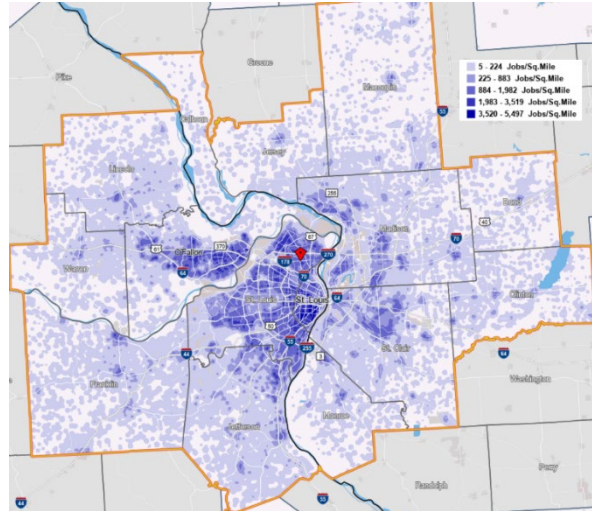
Distance	Workers	% of workforce
Less than 10 miles	558,578	44.0%
10 to 24 miles	454,276	35.8%
25 to 50 miles	134,971	10.6%
Greater than 50 miles	122,530	9.6%

Source: U.S. Census Bureau, OnTheMap Application, Primary Jobs 2019.

Forty-four percent of the workforce commuted less than 10 miles to work, while almost 10% traveled more than 50 miles.

Job Location

Jobs are located throughout the St. Louis MSA, but are most concentrated in St. Louis City, St. Louis County, St. Charles County along and between Interstates 70 and 64, and in areas of Madison and St. Clair counties in Illinois.



Map source: U.S. Census Bureau, OnTheMap Application, Primary Jobs (public and private sector) 2019.

Job Counts by County

County	Job Count
St. Louis County, MO	601,594
St. Louis City, MO	208,833
St. Charles County, MO	143,001
Madison County, IL	96,158
St. Clair County, IL	82,455
Jefferson County, MO	45,556
Franklin County, MO	36,304
Lincoln County, MO	11,289

County	Job Count
Clinton County, IL	11,170
Macoupin County, IL	9,193
Monroe County, IL	8,113
Warren County, MO	7,076
Jersey County, IL	4,549
Bond County, IL	4,351
Crawford County, MO *	4,071
Calhoun County, IL	713

Source: U.S. Census Bureau, OnTheMap Application, Primary Jobs (public and private sector) 2019.
 * Portions of Crawford County including West Sullivan/Sullivan City, Cuba, Bourbon, and St. Cloud.

Current Job Demand

One way to measure current employment demand is to track job postings. During the past year, there were over 460,000 online job postings in the St. Louis MSA, a 22% increase over the previous year (June 2020 through May 2021).

Of the online job postings for the St. Louis MSA from June 2021 to May 2022, the overall top-posted job was registered nurses (21,538), followed by software developers (16,590), and computer occupations, all other (15,510). Job postings for the computer and mathematical occupations major group (SOC 15) have increased 33% from last year, going from 35,200 to 46,880. Five of the top occupations were management jobs, and four were office and administrative support.

Several occupations, such as registered nurses, sales representatives, and retail salespersons, were among the top long-term growth jobs and in the top job advertisements over the past year. This indicates those occupations are in demand now and will be in demand in the future.

Top St. Louis MSA Job Advertisements in the Past Year

High school or less and/or short-term training	Online job ads
41-2031 Retail Salespersons	11,791
43-4051 Customer Service Representatives	10,663
53-7062 Laborers and Freight, Stock, and Material Movers, Hand	7,978
35-3023 Fast Food and Counter Workers	7,449
37-2011 Janitors and Cleaners	5,027
43-6014 Secretaries and Administrative Assistants	4,685
31-1120 Home Health and Personal Care Aides	4,463
35-3031 Waiters and Waitresses	3,978
33-9032 Security Guards	3,977
53-7065 Stockers and Order Fillers	3,963
Moderate or longer-term training to associate degree	Online job ads
29-1141 Registered Nurses	21,573
53-3032 Heavy and Tractor-Trailer Truck Drivers	10,667
41-4012 Sales Representatives, Wholesale and Manufacturing	10,307
41-1011 First-Line Supervisors of Retail Sales Workers	8,125
49-9071 Maintenance and Repair Workers, General	5,441
11-9051 Food Service Managers	4,718
31-1131 Nursing Assistants	4,273
29-2098 Medical Dosimetrists, Medical Records Specialists, and Health Technologists & Technicians, All Other	3,899
29-2061 Licensed Practical and Licensed Vocational Nurses	3,873
43-3031 Bookkeeping, Accounting, and Auditing Clerks	3,484
15-1232 Computer User Support Specialists	3,477
Bachelor's degree or higher	Online job ads
15-1256 Software Developers and Software Quality Assurance Analysts and Testers	13,736
15-1299 Computer Occupations, All Other	13,071
11-9198 Managers, All Other	9,933
11-9111 Medical and Health Services Managers	5,717
13-1071 Human Resources Specialists	5,028
11-1021 General and Operations Managers	4,744
13-2011 Accountants and Auditors	4,633
13-1111 Management Analysts	3,834
11-2022 Sales Managers	3,610

Source: Online Job Ads from June 1, 2021 through May 31, 2022, Lightcast™.

The first column lists the 2019 Standard Occupational Classification (SOC) code for that occupation. The SOC system is a federal statistical standard used by federal agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of 797 detailed occupations according to their occupational definition.

Skills and Certificates

Communication skills was the top-demanded skill of St. Louis MSA employers, requested in nearly one-third (32%) of total job postings. Other high-demand specialized skills included customer service, scheduling, and sales. Microsoft Office and its products such as Word, Excel, PowerPoint, and Access are the more requested software skills across all occupations and industries. Other top requested software and programming skills included software development, SQL, and software engineering.

Top basic skills	Online job ads	Top specialized skills	Online job ads
Communication skills	146,408	Customer service	74,433
Teamwork / Collaboration	85,423	Scheduling	56,182
Organizational skills	67,533	Sales	41,642
Physical abilities	63,535	Budgeting	33,438
Problem-solving	60,664	Project management	30,715
Planning	60,651	Cleaning	27,882
Detail-oriented	57,363	Customer contact	27,790
Microsoft Excel	51,336	Patient care	27,301
Microsoft Office	46,444	Repair	26,909
Research	43,508	Retail industry knowledge	24,649

Source: Online Job Ads from June 1, 2021 through May 31, 2022, Lightcast™.

The top requested certificate was a valid driver's license, followed by registered nurse and security clearance. One-half of the most requested certificates were related to health care. Several of the top certificates are available through short-term training or through courses offered at a community college.

Top certificates	Online job ads	Top software and programming skills	Online job ads
Driver's license	52,333	Software Development	15,289
Registered nurse	19,625	SQL	14,771
Security clearance	13,419	Software Engineering	12,262
American Board for Engineering & Technology (ABET) Accredited	10,340	Java	11,829
First Aid CPR-AED	8,972	Python	11,443
CDL Class A	8,220	Oracle	7,522
Basic Life Saving (BLS)	6,556	Linux	7,228
Basic Cardiac Life Support	5,311	SAP	6,938
Licensed Practical Nurse (LPN)	4,649	JavaScript	6,408
Certified Public Accountant (CPA)	4,266	Atlassian JIRA	6,307

Source: Online Job Ads from June 1, 2021 through May 31, 2022, Lightcast™.

Hard-to-Fill Jobs

Hard-to-fill jobs are those that are either in high demand based on the number of job postings relative to total job postings in the St. Louis MSA and/or take a longer than average time to fill. They are grouped here by the typical education or training needed. Heavy and tractor-trailer drivers jobs had the longest time to fill at 52 days. Management, sales, and information technology occupations are most frequently difficult to fill due to the required skills.

St. Louis MSA Top Hard-to-fill Jobs

O*NET occupation	STL MSA average annual wage	Average time to fill
High school education or less and/or short-term training		
Waiters and waitresses	\$28,440	51 days
Home Health Aides	\$25,480	51 days
Dishwashers	\$25,660	45 days
Cooks, Restaurant	\$29,710	44 days
Janitors and Cleaners	\$31,220	40 days
Maids and Housekeeping Cleaners	\$28,310	38 days
Personal Care Aides	\$25,480	38 days
Combined Food Preparation & Serving Workers, Inc. Fast Food	\$25,810	35 days
Office Clerks, General	\$40,010	35 days
Light Truck or Delivery Services Drivers	\$46,400	34 days
Moderate to longer-term training to associate degree		
Heavy and Tractor-Trailer Truck Drivers	\$53,730	52 days
Real Estate Sales Agents	\$59,610	47 days
Sales Representatives, Wholesale and Manufacturing	\$103,790	45 days
Preschool Teachers, Except Special Education	\$36,960	43 days
Insurance Sales Agents	\$62,420	42 days
Licensed Practical and Licensed Vocational Nurses	\$49,730	41 days
Food Service Managers	\$59,070	40 days
Web Developers	\$82,350	40 days
First-Line Supervisors of Mechanics, Installers, and Repairers	\$71,360	40 days
Maintenance and Repair Workers, General	\$47,160	38 days
Bachelor's degree or higher		
Sales Agents, Financial Services	\$72,610	45 days
Marketing Managers	\$124,150	43 days
Financial Managers, Branch or Department	\$140,520	43 days
Financial Analysts	\$91,320	42 days
Construction Managers	\$101,730	42 days
Software Developers, Applications	\$101,370	41 days
Managers, All Other	\$122,350	40 days
Management Analysts	\$95,010	40 days
Computer Systems Analysts	\$94,320	40 days
Information Security Analysts	\$97,980	40 days

Sources: St. Louis MSA Hard-to-fill Jobs from June 1, 2021 through May 31, 2022, Lightcast™.
Wages from U.S. Bureau of Labor Statistics Occupational Employment Statistics.

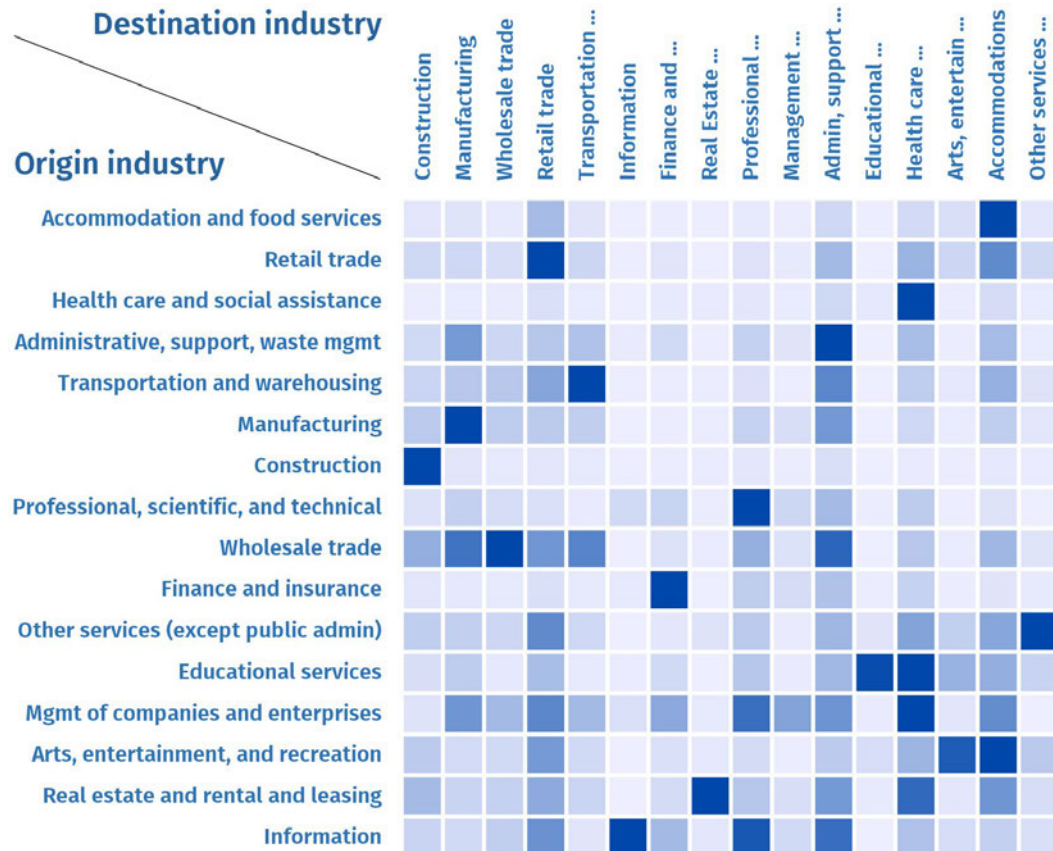
Job-to-Job Flows

Job-to-job flows show the level of labor fluidity and worker movement into other industries. Workers have leveraged the current tight labor market to upgrade their position, whether it is for better pay, benefits, opportunities, or work environment.

For construction, and health care and social assistance, most St. Louis MSA workers tend to move within the same industry. Accommodations and food services, finance and insurance, and retail trade see more workers moving to a new industry. Management of companies, wholesale trade, real estate, educational services, and information see the largest number of workers choosing new industries when they change positions.

St. Louis MSA Job-to-Job Flows for 16 Selected Industries

Darker color indicates more job flows, scaled by each row



Source: U.S. Census Bureau, J2J Explorer, job flows within the St. Louis MSA, 2021Q2.

At the national level, the Pew Research Center found that workers who changed jobs saw higher wage growth than other workers following the COVID-19 downturn. They also found that Black and Hispanic workers, workers with no college education, and younger workers are more likely to change jobs in any given month. Roughly half of workers who changed employers also changed occupations in an average month from 2019 to 2021. And while most workers have no near-term plans to leave their jobs, 22% say they are very or somewhat likely to look for a new job in the next six months.

New workers moving into the St. Louis MSA are mostly from the region and the metro areas in Missouri and Illinois surrounding St. Louis. Non-metro areas of Missouri and Illinois, Chicago MSA, Springfield (MO), Columbia, Jefferson City, and Cape Girardeau are the leading origins of new St. Louis MSA workers, followed by Carbondale, Springfield (IL), Dallas-Fort Worth MSA, Peoria, and Joplin.

Job-to-Job Flows from Top 12 Metro Areas to St. Louis MSA

Area	2020 Q3	2020 Q4	2021 Q1	2021 Q2
Not in metropolitan area, MO	3,331	3,361	2,653	3,707
Chicago-Naperville-Elgin, IL-IN-WI	2,638	2,566	2,486	3,348
Not in metropolitan area, IL	1,800	1,666	1,501	2,079
Springfield, MO	1,085	996	871	1,351
Columbia, MO	774	825	690	1,055
Jefferson City, MO	553	608	495	695
Cape Girardeau, MO-IL	420	478	397	578
Carbondale-Marion, IL	365	365	346	436
Springfield, IL	372	342	337	424
Dallas-Fort Worth-Arlington, TX	288	277	355	264
Peoria, IL	268	291	266	337
Joplin, MO	244	227	258	348

Source: U.S. Census Bureau, J2) Explorer.

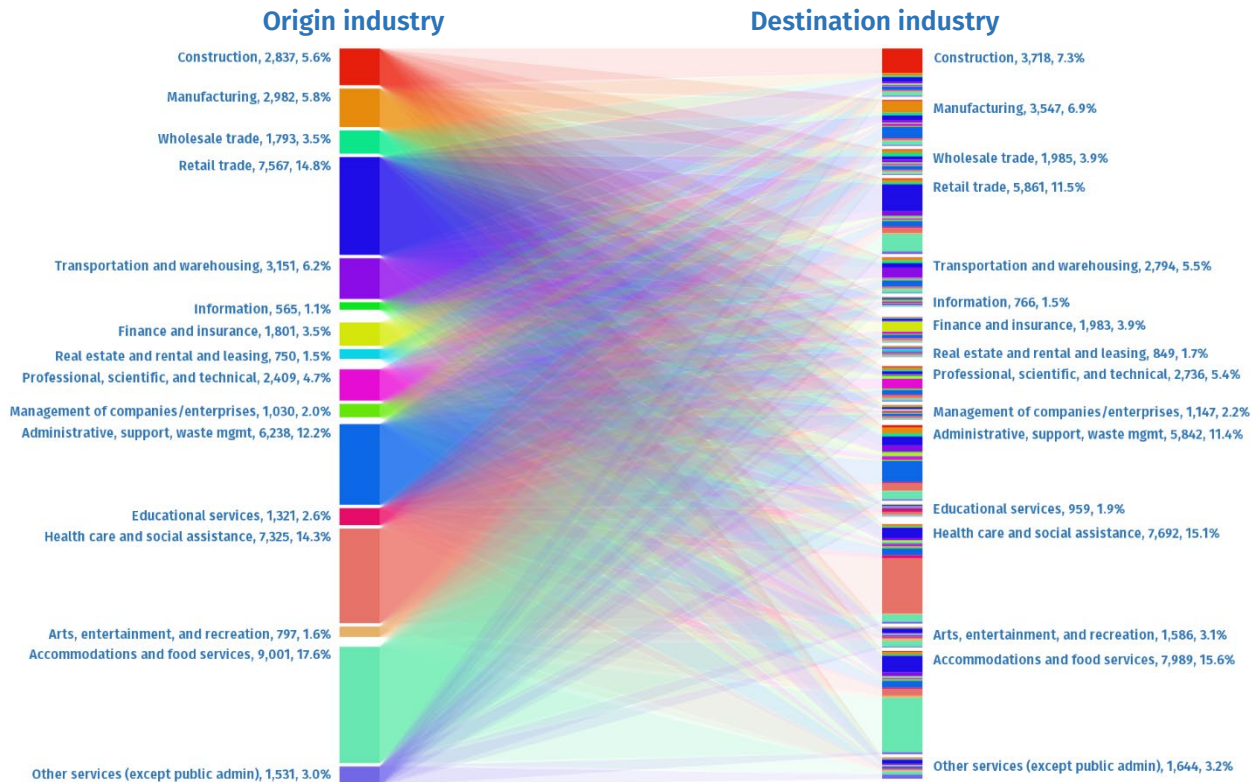
These same areas are also the top destinations for workers leaving the St. Louis MSA.

Job-to-Job Flows from St. Louis MSA to Top 12 Metro Areas

Area	2020 Q3	2020 Q4	2021 Q1	2021 Q2
Chicago-Naperville-Elgin, IL-IN-WI	3,370	2,783	2,961	3,641
Not in metropolitan area, MO	3,140	2,801	2,756	3,627
Not in metropolitan area, IL	2,031	1,769	1,548	1,994
Springfield, MO	1,010	1,106	960	1,200
Columbia, MO	947	834	733	884
Jefferson City, MO	606	555	507	590
Springfield, IL	610	439	364	482
Cape Girardeau, MO-IL	450	454	412	512
Dallas-Fort Worth-Arlington, TX	422	314	386	457
Carbondale-Marion, IL	401	339	279	384
Peoria, IL	319	263	248	322
Joplin, MO	255	237	280	293

Source: U.S. Census Bureau, J2) Explorer.

St. Louis MSA Job-to-Job Flows for 16 Selected Industries



Source: U.S. Census Bureau, J2J Explorer, job flows within the St. Louis MSA, 2021Q2.

Projected Job Demand

It is important to examine what jobs will be in demand in the future to ensure the workforce is prepared. Employment projections through the year 2030, developed by MERIC in partnership with the U.S. Department of Labor, estimate the occupations expected to be in greatest demand over a 10-year period. The jobs with the most projected openings for the St. Louis Workforce Development Area are categorized by the typical level of education and training required.

Job openings are determined by counting those created by new job (net) growth and those created through the need for replacement workers. Replacement openings occur by employees leaving due to retirement, turnover, or transferring to another occupation.

On the Long-Term Occupational Projections for the St. Louis Region table, annual exit openings are an estimate of the annual number of jobs that will arise from the need to replace workers who have left the workforce entirely. Annual transfer openings are an estimate of the annual number of jobs that will arise from the need to replace workers who have transferred to a different occupation. Annual growth openings are the annual numeric change in employment. Annual total openings are the sum of the exit, transfer, and growth openings.

Long-Term Occupational Projections for the St. Louis Region

SOC Code	Title	2020 Estimated Employment	2030 Projected Employment	2020-2030 Net Change	2020-2030 Percent Change	Annual Exit Openings	Annual Transfer Openings	Annual Growth Openings	Annual Total Openings
Total, All Occupations		1,120,239	1,201,727	81,488	7.3%	48,922	74,896	8,149	131,967
11-0000	Management Occupations	65,510	72,018	6,508	9.9%	1,564	3,798	651	6,013
13-0000	Business and Financial Operations Occupations	79,946	85,580	5,634	7.1%	2,166	4,838	563	7,567
15-0000	Computer and Mathematical Occupations	46,096	51,356	5,260	11.4%	1,010	2,410	526	3,946
17-0000	Architecture and Engineering Occupations	18,384	19,424	1,040	5.7%	446	870	104	1,420
19-0000	Life, Physical, and Social Science Occupations	7,526	8,209	683	9.1%	162	571	68	801
21-0000	Community and Social Service Occupations	14,748	15,985	1,237	8.4%	486	981	124	1,591
23-0000	Legal Occupations	10,116	11,026	910	9.0%	294	421	91	806
25-0000	Education, Training, and Library Occupations	52,802	57,148	4,346	8.2%	2,239	2,532	435	5,206
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	19,136	21,573	2,437	12.7%	748	1,315	244	2,307
29-0000	Healthcare Practitioners, Technical Occupations	82,499	90,471	7,972	9.7%	2,177	2,570	797	5,544
31-0000	Healthcare Support Occupations	57,932	67,181	9,249	16.0%	3,776	3,763	925	8,464
33-0000	Protective Service Occupations	22,869	25,250	2,381	10.4%	1,168	1,590	238	2,996
35-0000	Food Preparation and Serving Related Occupations	84,934	103,873	18,939	22.3%	7,095	9,580	1,894	18,569
37-0000	Building and Grounds Cleaning and Maintenance Occupations	34,492	37,226	2,734	7.9%	2,016	2,632	273	4,921
39-0000	Personal Care and Service Occupations	32,339	36,591	4,252	13.2%	2,197	2,723	425	5,345
41-0000	Sales and Related Occupations	102,835	101,835	-1,000	-1.0%	4,991	7,838	-100	12,729
43-0000	Office and Administrative Support Occupations	162,258	157,561	-4,697	-2.9%	7,496	9,846	-470	16,872
45-0000	Farming, Fishing, and Forestry Occupations	1,850	1,809	-41	-2.2%	77	207	-4	280
47-0000	Construction and Extraction Occupations	49,376	54,487	5,111	10.4%	1,578	3,446	511	5,535
49-0000	Installation, Maintenance, and Repair Occupations	39,312	41,719	2,407	6.1%	1,281	2,577	241	4,099
51-0000	Production Occupations	60,327	59,524	-803	-1.3%	2,292	4,224	-80	6,436
53-0000	Transportation and Material Moving Occupations	74,952	81,881	6,929	9.2%	3,661	6,162	693	10,516

Source: 2020-2030 Long-Term Occupational Projections, Missouri Economic Research and Information Center (MERIC).

MERIC's Top Job Outlook is defined by occupation or "career grades," which are based on the combination of total job openings, percent growth rate, and average wages of an occupation. Occupations graded with the letter grade "A+" have the best outlook. Grades in each region are determined by comparing only the occupations within that region.

St. Louis Region Top Job Outlook

Occupations typically requiring short-term on-the-job training, little to no experience, and/or a high school diploma	Career grade	Annual openings	Average annual wage
Fast Food and Counter Workers	B+	5,344	\$25,107
Home Health and Personal Care Aides	B+	5,085	\$26,856
Waiters and Waitresses	B+	3,888	\$24,801
Customer Service Representatives	B	2,982	\$38,736
Stockers and Order Fillers	B	2,469	\$32,002
Laborers and Freight, Stock, and Material Movers, Hand	B+	2,319	\$36,784
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	B	2,243	\$30,738
Security Guards	B+	1,200	\$36,130
Food Preparation Workers	B	1,147	\$24,176
Landscaping and Groundskeeping Workers	B	1,116	\$32,971
Maids and Housekeeping Cleaners	B	1,033	\$25,104
Construction Laborers	A	989	\$61,053
Bartenders	A	913	\$27,951
Light Truck or Delivery Services Drivers	B+	846	\$43,735
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	B+	748	\$22,900
Passenger Vehicle Drivers, Except Bus Drivers, Transit/Intercity	B+	728	\$31,619
Dining Room and Cafeteria Attendants and Bartender Helpers	B+	689	\$24,234
Nonfarm Animal Caretakers	B+	628	\$27,960
Food Servers, Nonrestaurant	B	542	\$26,505
Lifeguards, Ski Patrol, and Other Recreational Protective Service	B	493	\$22,773
Occupations typically requiring non-degree certificate, associate degree, apprenticeship, some experience, or moderate- to long-term training	Career grade	Annual openings	Average annual wage
Cooks, Restaurant	A	2,388	\$27,958
Heavy and Tractor-Trailer Truck Drivers	B+	1,582	\$52,480
Nursing Assistants	B	1,547	\$27,153
Bookkeeping, Accounting, and Auditing Clerks	B	1,214	\$44,226
First-Line Supervisors of Food Preparation and Serving Workers	A	1,200	\$36,708
Maintenance and Repair Workers, General	B	1,106	\$47,236
Carpenters	A	996	\$65,036
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	A	994	\$81,848
First-Line Supervisors of Office and Administrative Support	B	945	\$65,468
Medical Secretaries	B	836	\$38,591
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	A	769	\$71,764
Fitness Trainers and Aerobics Instructors	A	742	\$38,039
Insurance Sales Agents	A	660	\$72,547
Electricians	A	612	\$67,085
Medical Assistants	B+	602	\$35,161
Computer User Support Specialists	B+	559	\$56,153
Recreation Workers	B	540	\$26,573
Police and Sheriff's Patrol Officers	B	476	\$65,197
First-Line Supervisors of Production and Operating Workers	B	427	\$66,965
First-Line Supervisors of Construction Trades/Extraction Workers	A	425	\$82,643

Occupations typically requiring a bachelor's degree or higher	Career grade	Annual openings	Average annual wage
General and Operations Managers	A+	2,269	\$115,316
Registered Nurses	A	2,041	\$68,561
Software Developers and Software Quality Assurance Analysts and Testers	A+	1,497	\$100,718
Accountants and Auditors	A	1,241	\$77,123
Project Management Specialists and Business Operations Specialists, All Other	A	958	\$83,690
Management Analysts	A+	753	\$92,817
Secondary School Teachers, Except Special and Career/Technical Education	B	740	\$52,173
Market Research Analysts and Marketing Specialists	A+	725	\$72,247
Substitute Teachers, Short-Term	B	684	\$37,338
Human Resources Specialists	B+	667	\$64,334
Elementary School Teachers, Except Special Education	B	549	\$56,310
Securities, Commodities, and Financial Services Sales Agents	A	495	\$89,147
Medical and Health Services Managers	A+	441	\$113,250
Computer Systems Analysts	A	435	\$92,062
Financial Managers	A+	433	\$153,478
Financial and Investment Analysts, Financial Risk Specialists, and Financial Specialists, All Other	B+	370	\$92,260
Clinical Laboratory Technologists and Technicians	B	362	\$50,711
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	A	357	\$96,736
Lawyers	A	349	\$110,233
Computer and Information Systems Managers	A	322	\$146,428

Source: 2020-2030 Long-Term Occupational Projections, Missouri Economic Research and Information Center.

MERIC's Fastest Growing Occupations is defined by percent growth from the base year (2020) to the projected year (2030).

St. Louis Region Fastest Growing Occupations

Occupations typically requiring short-term on-the-job training, little to no experience, and/or a high school diploma	Career grade	Percent growth	Annual openings	Average annual wage
Ushers, Lobby Attendants, and Ticket Takers	B	48.6%	392	\$23,956
Baggage Porters and Bellhops	C+	43.0%	15	\$28,033
Bartenders	A	33.9%	913	\$27,951
Dining Room and Cafeteria Attendants, Bartender Helpers	B+	29.0%	689	\$24,234
Hotel, Motel, and Resort Desk Clerks	B	28.5%	225	\$24,470
Food Preparation and Serving Related Workers, All Other	B	27.8%	170	\$22,631
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	B+	27.8%	748	\$22,900
Lifeguards, Ski Patrol, Other Recreational Protective Service	B	22.0%	493	\$22,773
Nonfarm Animal Caretakers	B+	21.5%	628	\$27,960
Waiters and Waitresses	B+	21.4%	3,888	\$24,801
Home Health and Personal Care Aides	B+	20.4%	5,085	\$26,856
Dishwashers	B	20.3%	379	\$24,974
Passenger Vehicle Drivers, Except Bus Drivers, Transit/Intercity	B+	19.5%	728	\$31,619
Cargo and Freight Agents	B	19.1%	142	\$46,589
Amusement and Recreation Attendants	B	18.6%	397	\$27,468
Security Guards	B+	17.6%	1,200	\$36,130
Fast Food and Counter Workers	B+	15.6%	5,344	\$25,107
Food Servers, Nonrestaurant	B	15.3%	542	\$26,505
Construction Laborers	A	15.2%	989	\$61,053
Veterinary Assistants and Laboratory Animal Caretakers	C+	15.0%	148	\$33,039

Occupations typically requiring non-degree certificate, associate degree, apprenticeship, some experience, or moderate- to long-term training	Career grade	Percent growth	Annual openings	Average annual wage
Concierges	B	67.2%	65	\$29,311
Cooks, Restaurant	A	51.7%	2,388	\$27,958
Musicians and Singers	A	41.2%	48	n/a
Athletes and Sports Competitors	B+	38.7%	21	\$72,480
Occupational Therapy Assistants	B+	38.6%	81	\$56,183
Broadcast Technicians	B	38.5%	25	\$50,110
Physical Therapist Assistants	B	33.8%	148	\$52,348
Airfield Operations Specialists	B	31.8%	49	\$35,171
Fitness Trainers and Aerobics Instructors	A	30.1%	742	\$38,039
Umpires, Referees, and Other Sports Officials	B	28.9%	245	\$35,270
Phlebotomists	B	25.4%	115	\$32,857
Computer Numerically Controlled Tool Programmers	B+	25.1%	39	\$72,178
Respiratory Therapists	B+	25.0%	93	\$58,382
Mechanical Door Repairers	B	24.4%	18	\$49,255
Chefs and Head Cooks	B	24.0%	86	\$48,262
Self-Enrichment Education Teachers	B+	24.0%	304	\$42,570
First-Line Supervisors of Food Preparation and Serving Workers	A	23.3%	1,200	\$36,708
Audio and Video Equipment Technicians	B	22.6%	143	\$47,574
Mobile Heavy Equipment Mechanics, Except Engines	B	21.9%	146	\$59,769
Industrial Machinery Mechanics	B+	19.7%	188	\$62,251
Occupations typically requiring a bachelor's degree or higher	Career grade	Percent growth	Annual openings	Average annual wage
Nurse Practitioners	A+	47.4%	281	\$105,878
Radio and Television Announcers	B	35.9%	32	\$53,686
Camera Operators, Television, Video, and Motion Picture	B	34.9%	30	\$55,670
Agents/Business Managers of Artists/Performers/Athletes	B	33.8%	11	\$59,169
Film and Video Editors	B	33.6%	37	\$55,675
Statisticians	A	32.8%	28	\$92,620
Logisticians	A	30.9%	185	\$79,260
Medical and Health Services Managers	A+	30.4%	441	\$113,250
Producers and Directors	B+	29.7%	76	\$61,146
Physician Assistants	A	29.5%	57	\$83,108
Information Security Analysts	A	28.4%	133	\$93,738
Computer and Information Research Scientists	A	27.4%	20	\$122,494
Actuaries	A	27.3%	20	\$129,547
Data Scientists/Mathematical Science Occupations, All Other	A	25.6%	56	\$103,084
Operations Research Analysts	A	22.6%	76	\$80,575
Speech-Language Pathologists	A	22.3%	92	\$95,830
Market Research Analysts and Marketing Specialists	A+	22.1%	725	\$72,247
Coaches and Scouts	B	21.7%	296	\$35,412
Medical Scientists, Except Epidemiologists	B+	20.5%	115	\$76,924
Nursing Instructors and Teachers, Postsecondary	B	20.5%	47	\$67,061

Source: 2020-2030 Long-Term Occupational Projections, Missouri Economic Research and Information Center.

MERIC's Top Job Openings long-term occupational projections are based on job growth as well as replacement needs due to exits or transfers.

St. Louis Region Top Job Openings

Occupations typically requiring short-term on-the-job training, little to no experience, and/or a high school diploma	Career grade	Annual openings	Average annual wage
Fast Food and Counter Workers	B+	5,344	\$25,107
Home Health and Personal Care Aides	B+	5,085	\$26,856
Waiters and Waitresses	B+	3,888	\$24,801
Retail Salespersons	C+	3,863	\$32,945
Cashiers	C	3,068	\$25,601
Customer Service Representatives	B	2,982	\$38,736
Office Clerks, General	C+	2,568	\$39,033
Stockers and Order Fillers	B	2,469	\$32,002
Laborers and Freight, Stock, and Material Movers, Hand	B+	2,319	\$36,784
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	B	2,243	\$30,738
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	C+	1,647	\$40,195
Security Guards	B+	1,200	\$36,130
Food Preparation Workers	B	1,147	\$24,176
Landscaping and Groundskeeping Workers	B	1,116	\$32,971
Childcare Workers	C+	1,072	\$26,241
Maids and Housekeeping Cleaners	B	1,033	\$25,104
Construction Laborers	A	989	\$61,053
Bartenders	A	913	\$27,951
Light Truck or Delivery Services Drivers	B+	846	\$43,735
Shipping, Receiving, and Traffic Clerks	C	753	\$36,243
Occupations typically requiring non-degree certificate, associate degree, apprenticeship, some experience, or moderate- to long-term training	Career grade	Annual openings	Average annual wage
Cooks, Restaurant	A	2,388	\$27,958
Heavy and Tractor-Trailer Truck Drivers	B+	1,582	\$52,480
Nursing Assistants	B	1,547	\$27,153
Bookkeeping, Accounting, and Auditing Clerks	B	1,214	\$44,226
First-Line Supervisors of Food Preparation and Serving Workers	A	1,200	\$36,708
Maintenance and Repair Workers, General	B	1,106	\$47,236
Carpenters	A	996	\$65,036
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	A	994	\$81,848
First-Line Supervisors of Office and Administrative Support Workers	B	945	\$65,468
Medical Secretaries	B	836	\$38,591
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	A	769	\$71,764
Fitness Trainers and Aerobics Instructors	A	742	\$38,039
First-Line Supervisors of Retail Sales Workers	C+	734	\$44,132
Insurance Sales Agents	A	660	\$72,547
Electricians	A	612	\$67,085
Hairdressers, Hairstylists, and Cosmetologists	C+	603	\$32,607
Medical Assistants	B+	602	\$35,161
Miscellaneous Assemblers and Fabricators	C	585	\$41,009
Computer User Support Specialists	B+	559	\$56,153
Teaching Assistants, Except Postsecondary	C+	559	\$28,983

Occupations typically requiring a bachelor's degree or higher	Career grade	Annual openings	Average annual wage
General and Operations Managers	A+	2,269	\$115,316
Registered Nurses	A	2,041	\$68,561
Software Developers and Software Quality Assurance Analysts and Testers	A+	1,497	\$100,718
Accountants and Auditors	A	1,241	\$77,123
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Source: 2020-2030 Long-Term Occupational Projections, Missouri Economic Research and Information Center.

Employer Survey

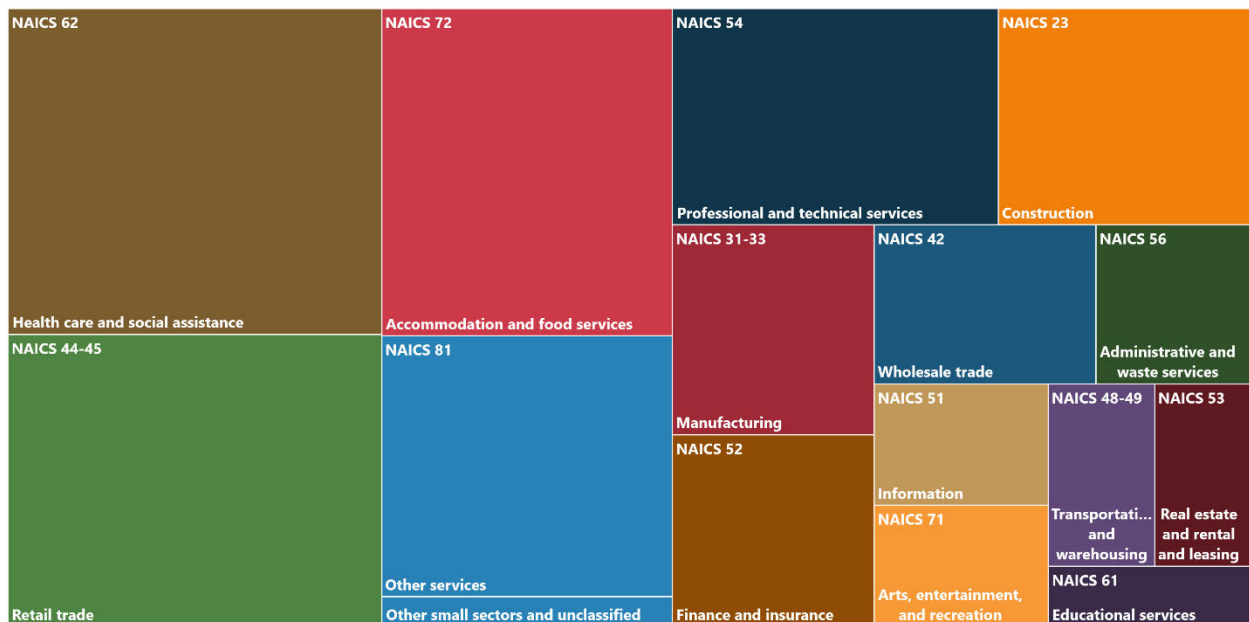


This 2022 employer survey marks our 14th annual telephone survey of companies throughout the St. Louis metropolitan area. Our goal is to understand the business climate, hiring trends, occupational skills, and demands from businesses across the St. Louis region. This year’s survey targeted 436 employers in 16 employer categories across 23 industry segments as defined by the North American Industry Classification System (NAICS). These industries were selected because they represent a composite picture of the regional economy.

A statistically significant sample was surveyed from each of the industry categories in the ratio to that industry’s proportional representation in the St. Louis Metropolitan Statistical Area (MSA). Geographically, the firms interviewed also represented the entire St. Louis MSA. The number of employers surveyed in each industry category are listed in the *Methodology* section.

Although the companies interviewed reflect a wide range of sizes as measured by number of employees, as with past years the majority of the respondents for this year’s survey consisted of small- and mid-sized businesses with fewer than 50 employees.

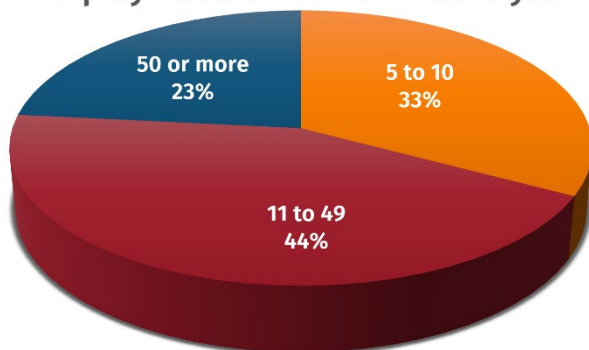
2022 Employer Survey Industry Categories



Companies employing fewer than five employees were not selected for interview.

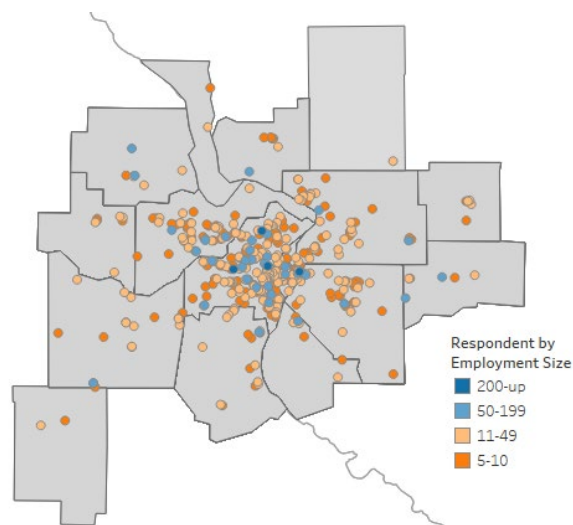
Each employer was asked a series of 19 questions, several with multiple parts, to understand their hiring outlooks and challenges, as well as practices that either created barriers to, or opportunities for, employment and advancement.

Employment Size of Firms Surveyed



For the 2020 survey, we added a number of questions specifically about the immediate impact of the COVID-19 pandemic on employers' hiring and workforce decisions. In 2021, COVID-specific questions were trimmed back, replaced with new questions surrounding remote work, types of background checks performed, workforce initiatives, and concerns for the future.

This year's survey saw the remaining COVID-related questions removed, replaced with new questions examining the strengths seen in applicants, partnerships to help firms source talent, work-based learning experiences for students and young adults, Diversity, Equity and Inclusion (DEI) initiatives, and the characteristics of a "good job." The specific survey questions asked are provided in *Appendix I*.



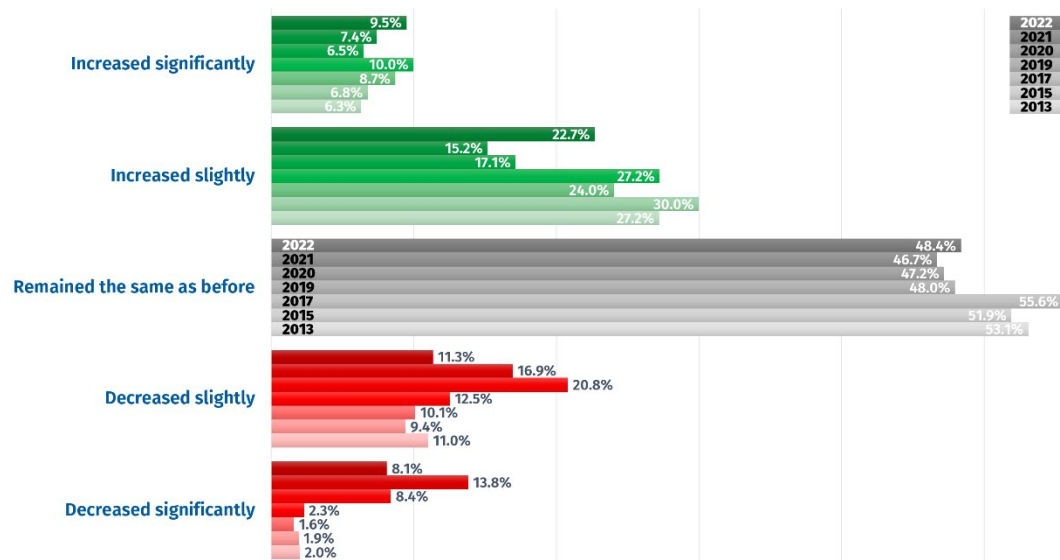
Hiring Trends

The high level of optimism we saw from employers last year that hiring would increase in this past year was justified.

The Past Year

Thirty-two percent of employers reported increased employment in 2022, a 10% increase over 2021 and a 9% increase over 2020. This is still significantly less than the 37% result from 2019 and similar to 33% from 2017. The number of employers reporting unchanged employment levels during the past 12 months stayed roughly consistent with the three previous years at 48%, but was lower in comparison with past all-industry surveys where this response ranged from 52% to 56%.

Change in Employment Levels over the Last 12 Months



A greater percentage of employers (8%)—compared to pre-pandemic responses—still reported significant staffing decreases during the last year, similar to 2020 level (8%), which included pre-pandemic and pandemic decreases, but significantly lower than last year (14%) during the height of the pandemic. Decreases overall (19%) are still 65% higher than the pre-pandemic rate.

Hiring has returned from the pandemic, with employers reporting significantly increased employment levels at a higher rate (9.5%) than last year (7.4%) and 2020 (6.5%). This is higher than the 2013, 2015 and 2017 results (6.3%, 6.8% and 8.7% respectively), but lower than the 2019 rate (10%). The overall increase in staffing levels is dramatically better this year at 32%, compared to the increases of only 23% in 2021 and 24% in 2020, but still not to the levels seen pre-pandemic, which ranged between 33% to 37%.

Forty-eight percent of employers that reported significant changes in employment levels attributed them to COVID-19, continuing a downward trend for this question from the 2021 (65%) and 2020 results (69%).

Looking Ahead

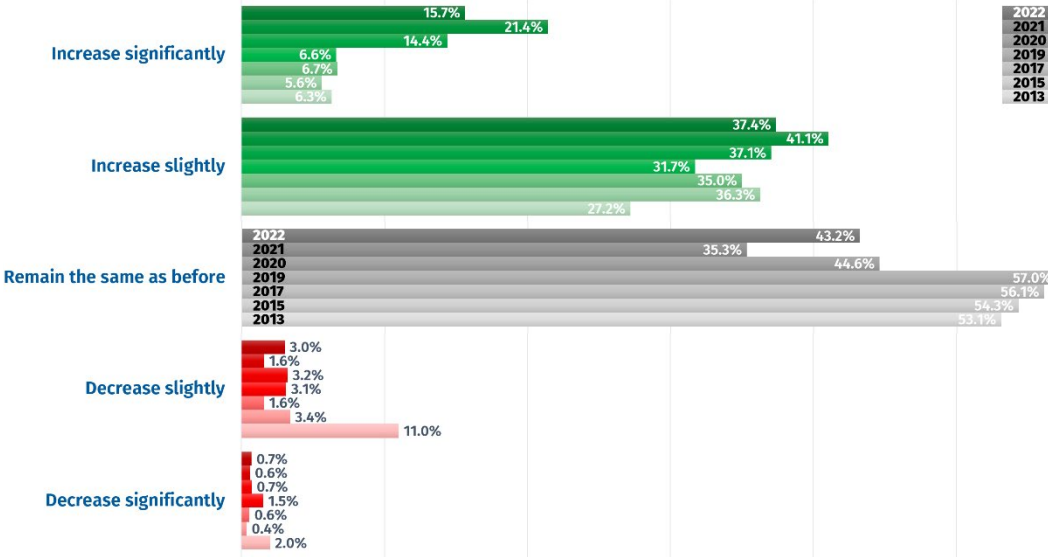
Last year, we saw nearly 63% of employers reporting they planned to increase employment levels—the highest level reported since our survey began—and a signal they expected a recovery in employment from the impacts of the pandemic. This year, more than half (53%) of employers still indicate they expect to increase staffing during the next 12 months. Almost 16% said they will increase employment significantly, which is more than double the rate reported pre-pandemic.

Forty-three percent of employers indicated they expect their hiring levels to remain the same. This is higher than the 35% level reported in 2021, but still over 23% lower than

the pre-pandemic responses. Most firms are anticipating their employment to stay at existing levels or increase, continuing the recovery from the pandemic.

Employer plans to decrease employment remain similar to responses in previous years, with 3% of employers expecting a slight decrease and less than 1% expecting a significant decrease in staff levels.

Future Plans to Change Employment Levels in the Next 12 Months



It is obvious the impact of the pandemic on hiring lasted much longer than employers anticipated. Last year, 63% of employers reported they planned to increase employment levels in the next 12 months whereas only 32% actually did. Twenty-one percent shared their optimism that their hiring would increase significantly in the past 12 months, but this actually happened for less than 10% of firms. Just one-third (35%) anticipated their staffing levels to stay the same as last year—the lowest value since our survey began—as firms expected employment increases, but almost half (48%) reported this year that their levels remained the same as before.

Expanding Employment

The *State of the St. Louis Workforce* survey asked employers about perceived barriers to expanding employment.

Barriers and Skill Gaps

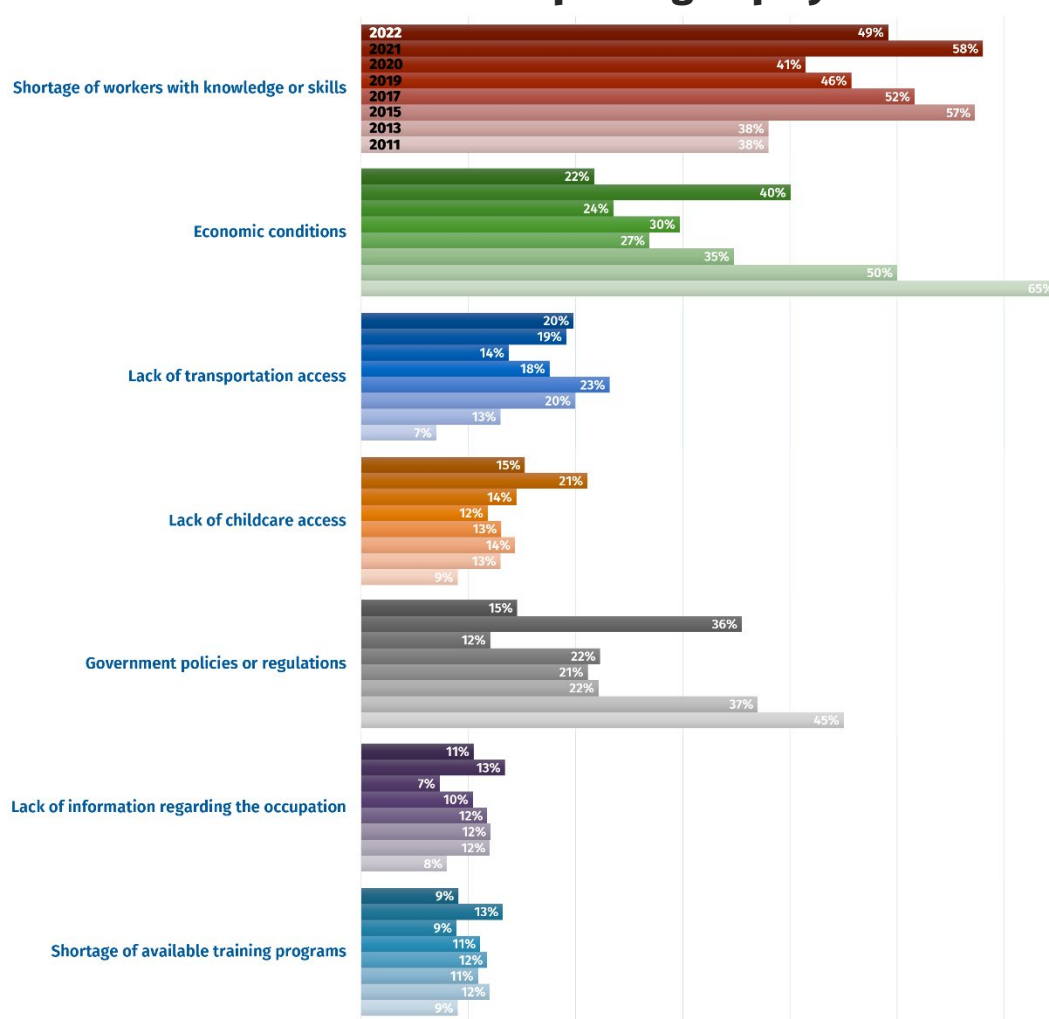
Since 2015, a shortage of workers with knowledge or skills has been the leading response. 2022 continues this run, with almost half of employers (49%) citing this as their top barrier.

The level of other barriers has shifted significantly this year. Economic conditions, while still the No. 2 barrier to expanding employment, fell to almost half the response rate from last year (40% to 22%). It is now at the lowest level seen for that barrier since our survey began, and was the top response when we started the *State of the St. Louis*

Workforce report during the Great Recession. Government policies or regulations, the other critical barrier during the Great Recession, dropped by over half (36% to 15%) from last year, and is now at its second-lowest level. Both of these barriers were rated at an enhanced level last year as firms worked through pandemic impacts.

Lack of transportation access (20%) and lack of childcare access (15%) are now the third and fourth most cited barriers to expanding employment. Other interesting barriers shared by respondents included “people don’t want jobs” (4%) and a lack or shortage of applicants (3%). Eighteen percent of firms this year indicated they have not encountered any barriers to expanding their employment level, higher than the 12% in 2021 and 17% in 2020. Six percent of firms are not looking to expand employment.

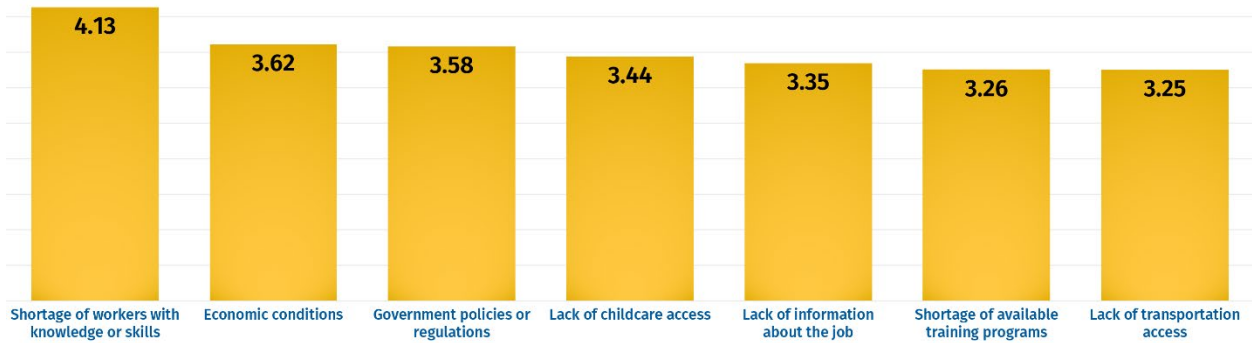
Potential Barriers to Expanding Employment



Importance of Barriers to Expanding Employment

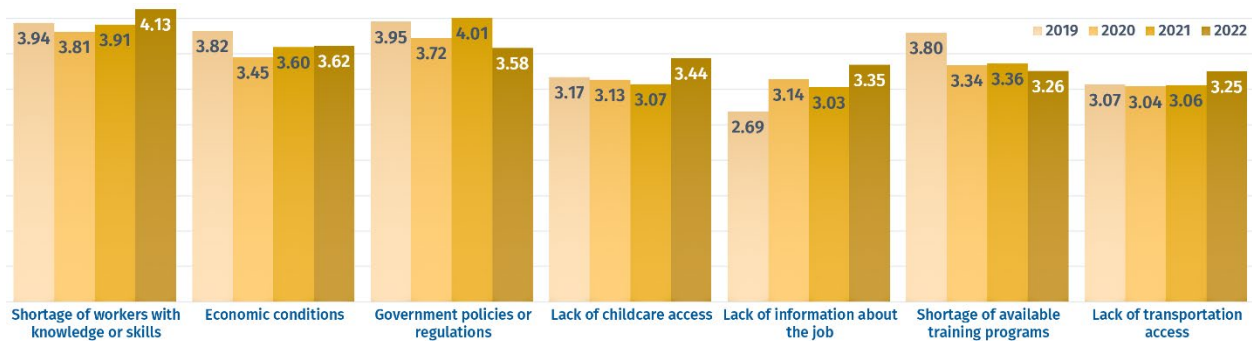
The survey also asked employers to rate the importance of barriers they have experienced using a five-point scale, with five being the most critical. The highest weighted average response for any barrier cited (excluding an “all other” category) was 4.13 for shortage of workers with knowledge or skills.

Importance of Barriers to Expanding Employment



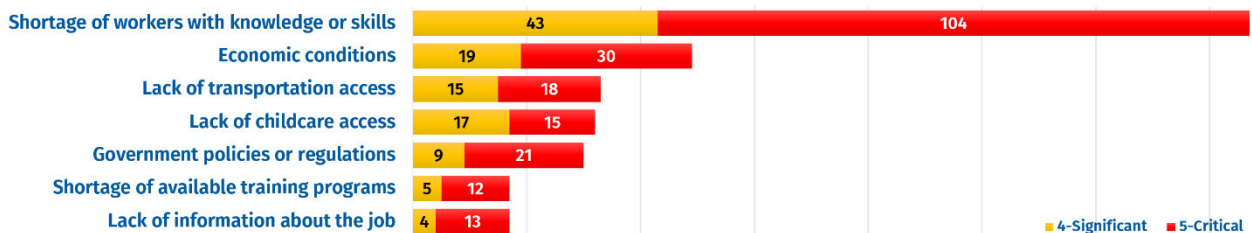
Economic conditions was rated second-most important at 3.62. Government policies or regulations, the highest rated category last year, dropped to third place for 2022 at 3.58. Lack of childcare access (3.44), lack of information about the job (3.35), and lack of transportation access (3.25) have all increased in importance over the last few years.

Barriers to Expanding Employment (Importance by Year)



Employers who experienced barriers were asked, “How large is each employment barrier to your business?” The shortage of workers with knowledge or skills once again received the greatest number of significant (ranked 4 out of 5) and critical (5 out of 5) responses, with 147 employers identifying this barrier as highest in criticality, substantially more than any other barrier this year.

Criticality of Barriers to Expanding Employment Experienced

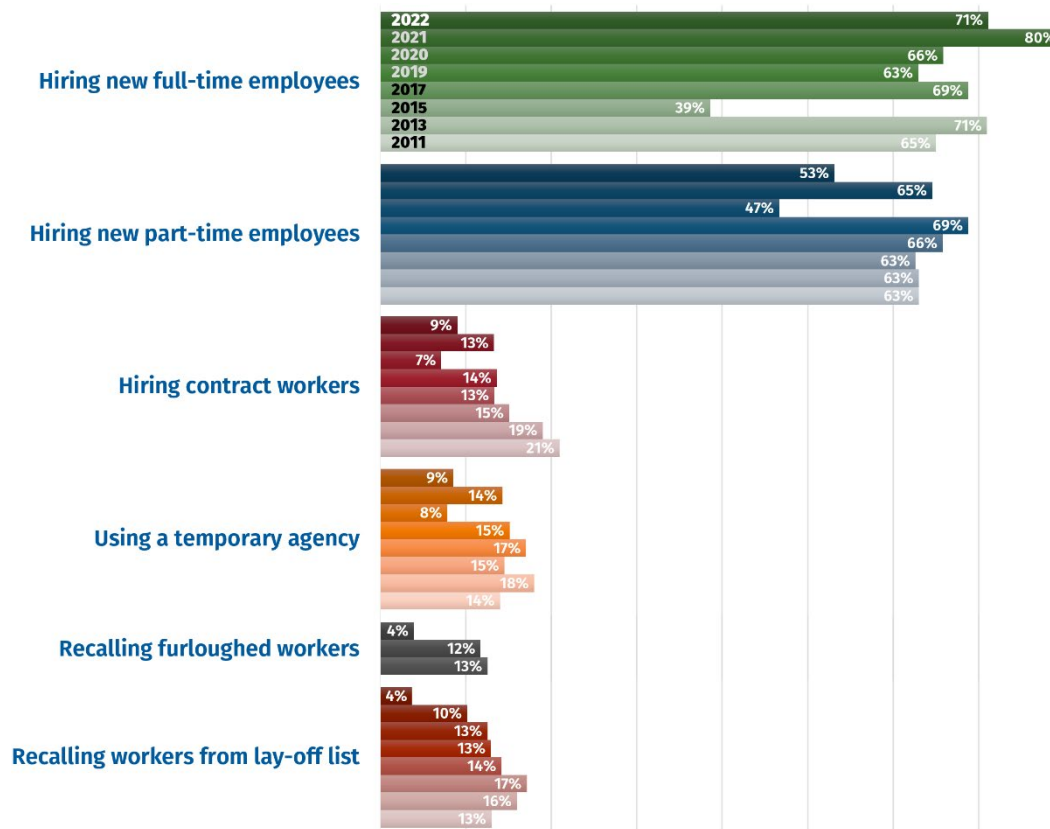


This year saw major decreases in the criticality of government policies or regulations (second highest last year with 119 significant and critical rankings vs. only 30 this year) and economic conditions (third highest in 2021 with 103 rankings vs. 49 this year) as barriers to expanding employment.

Adding Employees

In 2021, an amazing 80% of employers indicated that, if they added workers, they would hire new full-time employees during the next 12 months. This was the highest level reported since the survey began and was significantly higher than all the previous years. For 2022, hiring new full-time employees still remains the top preference of employers, with 71% choosing that method to add workers.

Methods to Add Workers



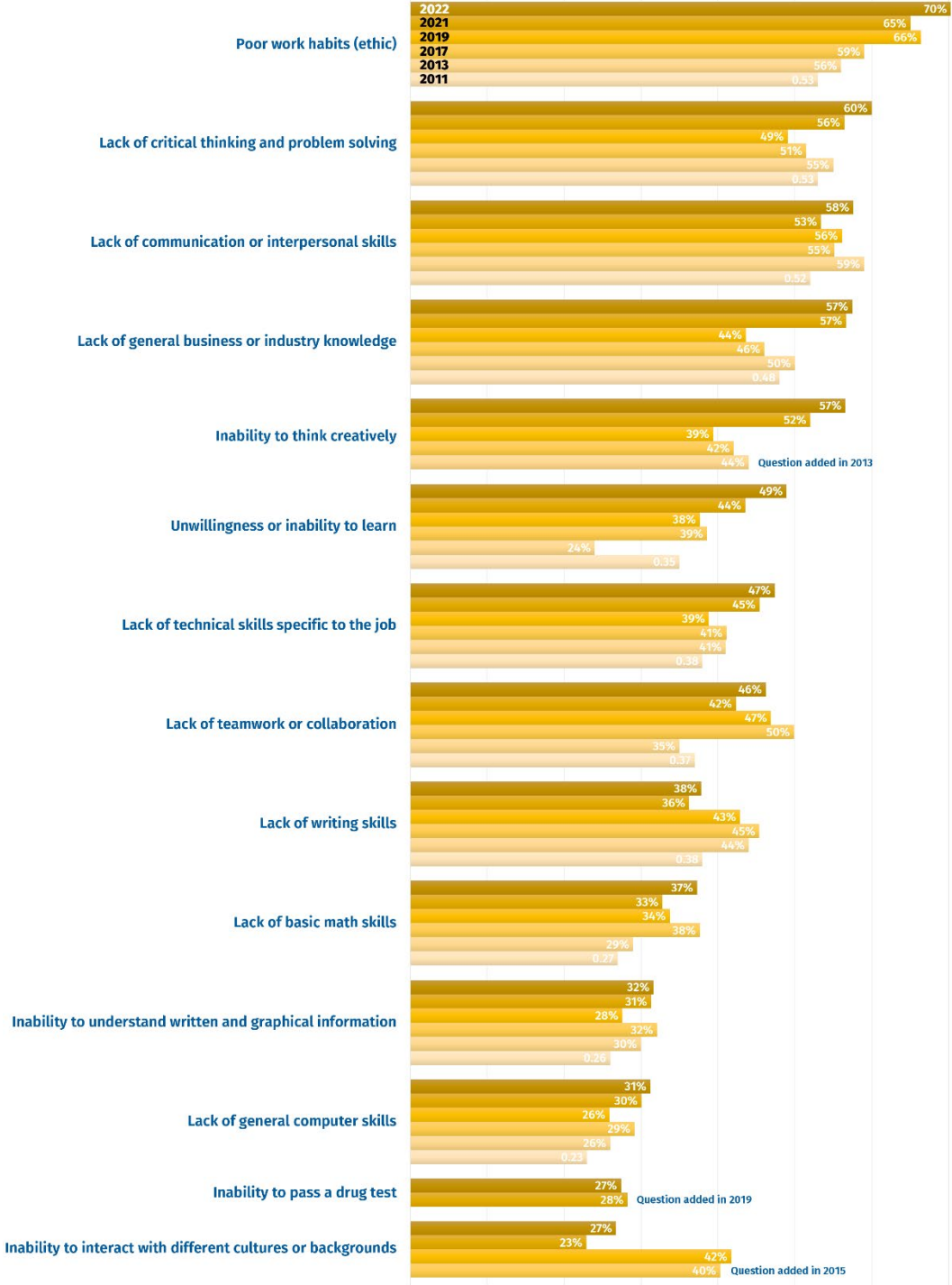
Hiring new part-time workers fell to 53%, lower than all previous years of the survey except 2020, after a rebound to the normal range for this method to add workers (65%) last year. Since the start of the pandemic, firms have turned to adding full-time workers for their new staffing needs. Other methods to add new workers, including the traditional risk mitigation options of contract workers (9%) and using temporary agencies (9%), also fell this year after a quick rebound in 2021. Furloughed (a response option added in 2020) and laid-off workers (both at 4%) do not seem to be available.

Shortcomings of Job Applicants

We asked employers about the possible shortcomings they were seeing in applicants for their available jobs. Poor work habits at 70% leads the list as the most frequent response, as it has been since 2013, and includes the characteristics of attendance, punctuality, and attention to job. Poor work habits now has the highest value for any

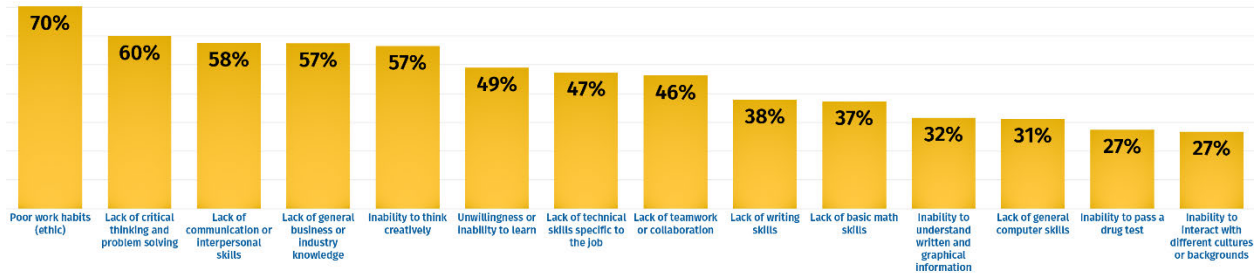
shortcoming since our survey began, having trended upwards since 2011, and is of most importance for our survey respondents. A lack of critical thinking and problem solving (60%), and a lack of communication and interpersonal skills (58%) are now the second and third ranked shortcomings, displacing a lack of general business or industry knowledge (57%) which was the No. 2 response last year.

Shortcomings Seen in Job Applicants



The top responses are all “soft skills” or “core skills;” you need to drop down to the seventh ranked shortcoming, a lack of technical skills specific to the job (47%), to find a STEAM or “hard” technical skill.

Shortcomings Seen in Job Applicants in the Past 12 Months



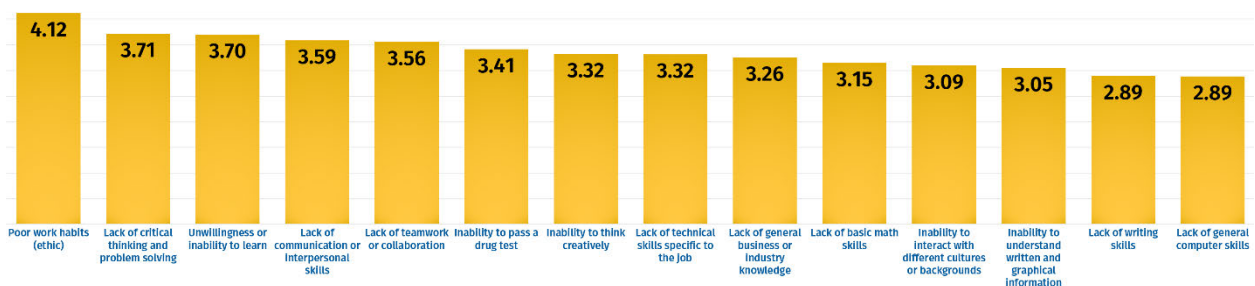
More employers reported seeing shortcomings in applicants this year, likely partially due to the current tight labor market. The shortcomings that saw the largest increases for 2022 (5% or more) were all the “core skills” of poor work habits (70%), a lack of communication and interpersonal skills (58%), an inability to think creatively (57%), and an unwillingness or inability to learn (49%).

An inability to interact with different cultures or socio-economic backgrounds (27%) has now dropped to the bottom of the shortcomings list, falling 6 places and 15% from 2019. Only two other shortcomings are now rated lower than in 2019, a lack of teamwork or collaboration (down 1% to 46%) and a lack of writing skills (down 5% to 38%).

Importance of Applicant Shortcomings

We also asked employers how important each of these shortcomings were, using the same five-point scale. Poor work habits retained the position of top importance held since 2015 with a rating of 4.12. A lack of critical thinking and problem solving (3.71) was rated second-most important followed very closely by an unwillingness or inability to learn (3.70). A lack of communication or interpersonal skills (3.59), a lack of teamwork or collaboration (3.56), and an inability to pass a drug test (3.41) were identified as the next most important.

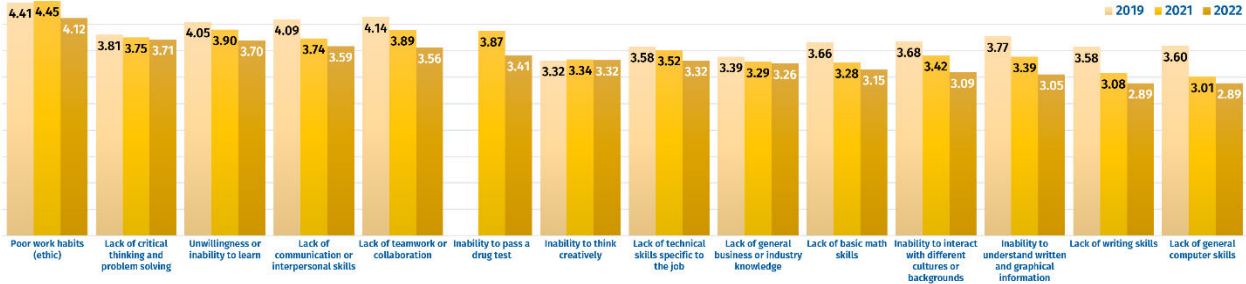
Importance of Shortcomings Seen in Job Applicants



Even though employers saw more applicants with shortcomings this year, the average importance of those shortcomings has slowly declined from 2019 and 2021.

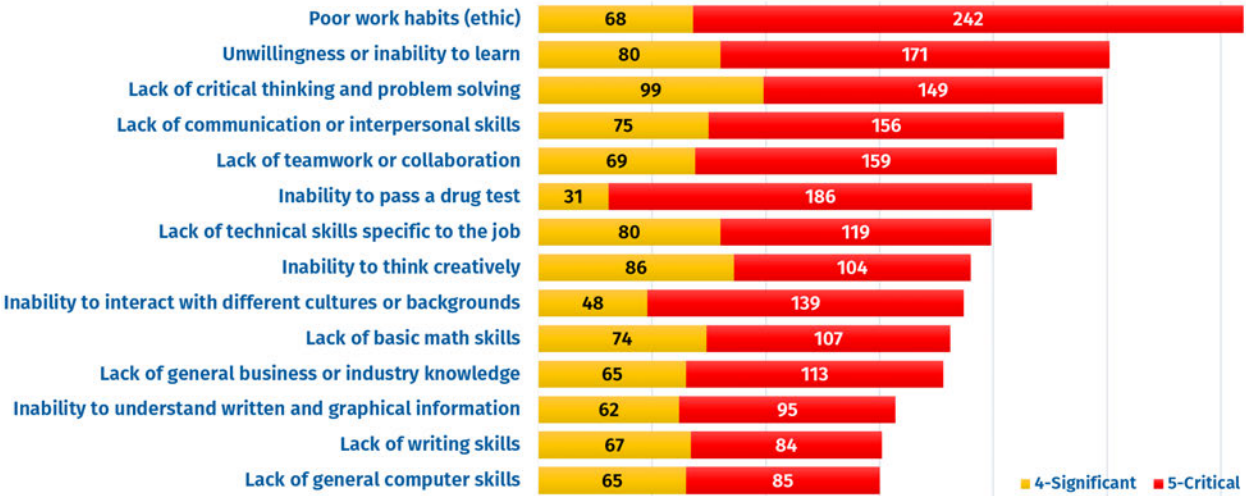
The importance of an inability to understand written and graphical information (3.05 from 3.77), a lack of computer skills (2.89 from 3.60), and a lack of writing skills (2.89 from 3.58), dropped most significantly from the 2019 results. An inability to interact with different cultures or socio-economic backgrounds (3.09 from 3.68), a lack of teamwork or collaboration (3.56 from 4.14), and a lack of basic math skills (3.15 from 3.68) experienced more moderate drops. An inability to think creatively was the only shortcoming that did not drop in average importance between 2019 and 2022.

Shortcomings Seen in Job Applicants (Importance by Year)



Seventy-one percent of the employers who participated in our survey responded that poor work habits is the most significant (ranked 4 out of 5) and critical (5 out of 5) shortcoming they encounter. An unwillingness or inability to learn (58% of employers), a lack of critical thinking and problem solving (57%), and a lack of communication or interpersonal skills (53%) are the next most significant and critical shortcomings.

Criticality of Shortcomings Seen in Job Applicants



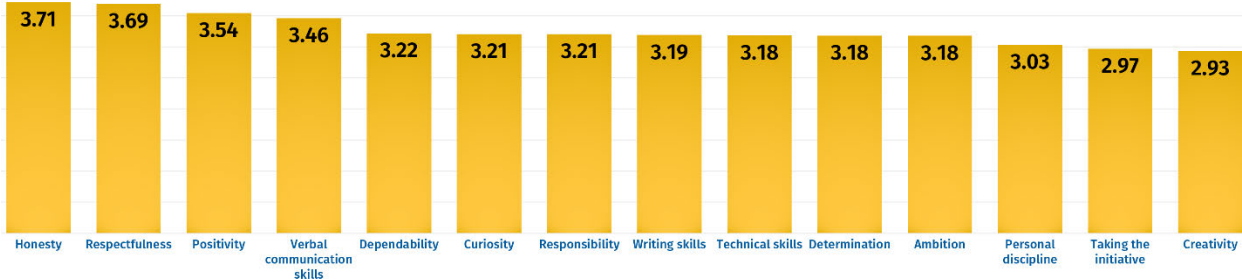
The inability to pass a drug test, while only seen as a shortcoming in job applicants by 27% of employers, is rated as critical in importance by almost 43% of employers. Only poor work habits (by 56% of employers) received more critical responses.

Strengths Seen in Job Applicants

To contrast with the shortcomings seen in job applicants, we added a new question this year to look at the strengths of job applicants. We asked employers to rank 14 strengths on a 1 to 5 scale where 1 is “did not see this strength in any applicants” and 5 is “saw this strength in all applicants.”

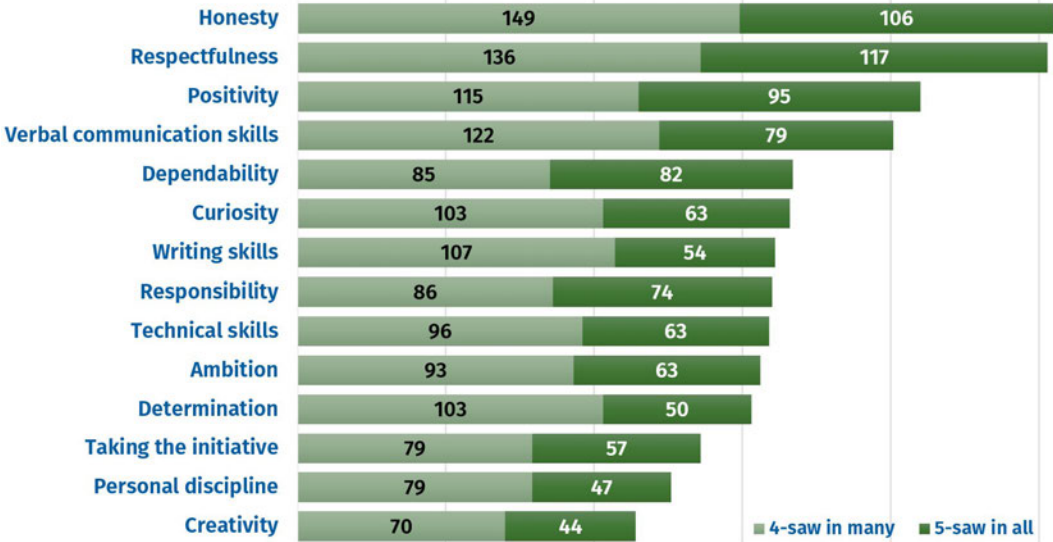
Honesty (3.71), respectfulness (3.69), positivity (3.54), and verbal communication skills (3.46) were the leading strengths seen by employers in job applicants.

Strengths Seen in Job Applicants in the Past 12 Months



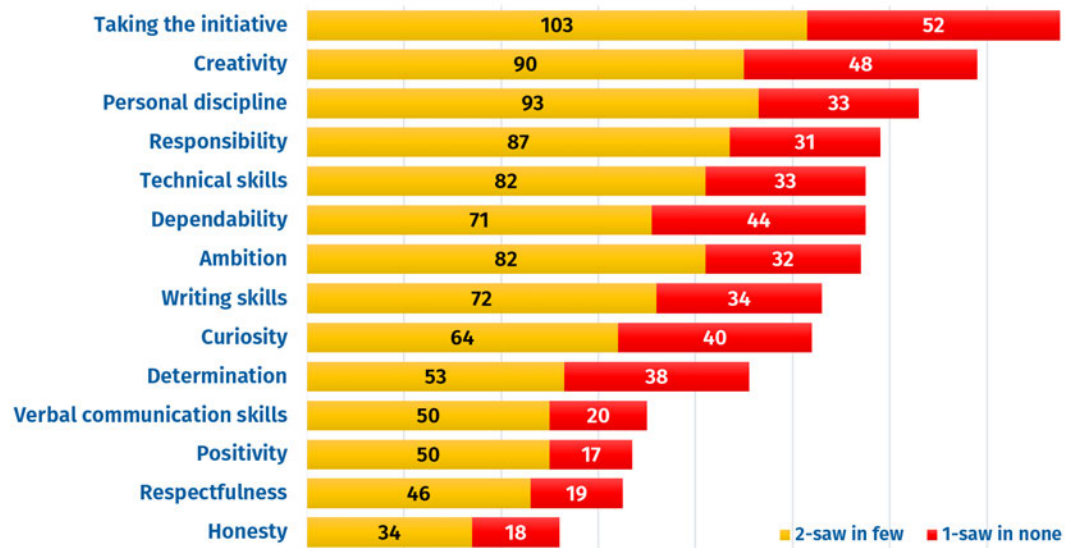
The strengths of honesty (63%) and respectfulness (61%) were seen in many or all job applicants by employers. Positivity (seen by 51% of employers) and verbal communication skills (49%) closely followed. Over one-third of employers saw dependability and writing skills (both 41%), curiosity (40%), technical skills and responsibility (both 39%), ambition (38%), and determination (37%) in many or all of their applicants.

Strengths Seen in More Job Applicants



Taking the initiative was seen in few or no job applicants by 37% of employers. Other strengths not, or infrequently, seen in some job applicants include creativity (reported by 34% of employers), personal discipline (31%), responsibility (29%), technical skills (28%), dependability (28%), and ambition (27%).

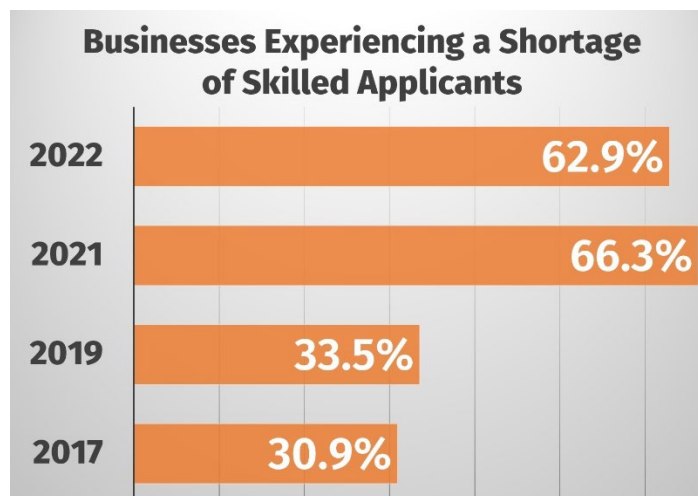
Strengths Least Seen in Job Applicants



Shortage of Applicants

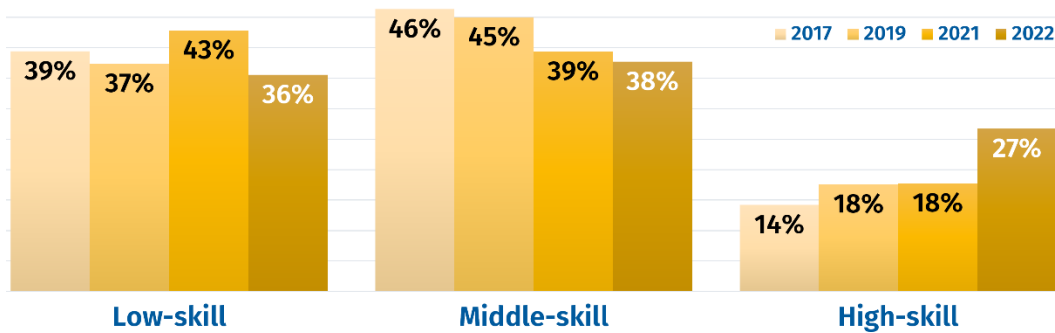
Employers continue to have difficulty finding candidates. This year, 63% of employers reported they were experiencing a shortage of skilled applicants, continuing the elevated response we first saw last year when a full two-thirds of employers (66%) reported they were experiencing an applicant shortage. This shortage in applicants has basically doubled from the pre-pandemic levels of 31% in 2017 and 34% in 2019.

We then asked employers which average skill levels were required to meet their skill shortages, given a choice of high-skill (requiring a four-year degree or higher), middle-skill (requiring training or education beyond high school but less than a four-year degree), or low-skill (requiring a high school diploma or less). Although middle-skill (38%) was the top choice—and has been the top choice in most of our prior surveys—



employers are showing a growing preference (27%) towards high-skill applicants this year, a 9% increase from 2021 (18%). This is a major change from 2021 where the responses trended toward low-skill applicants, jumping from 37% (2019) to 43% (2021), but dropping back down 7% this year to 36%.

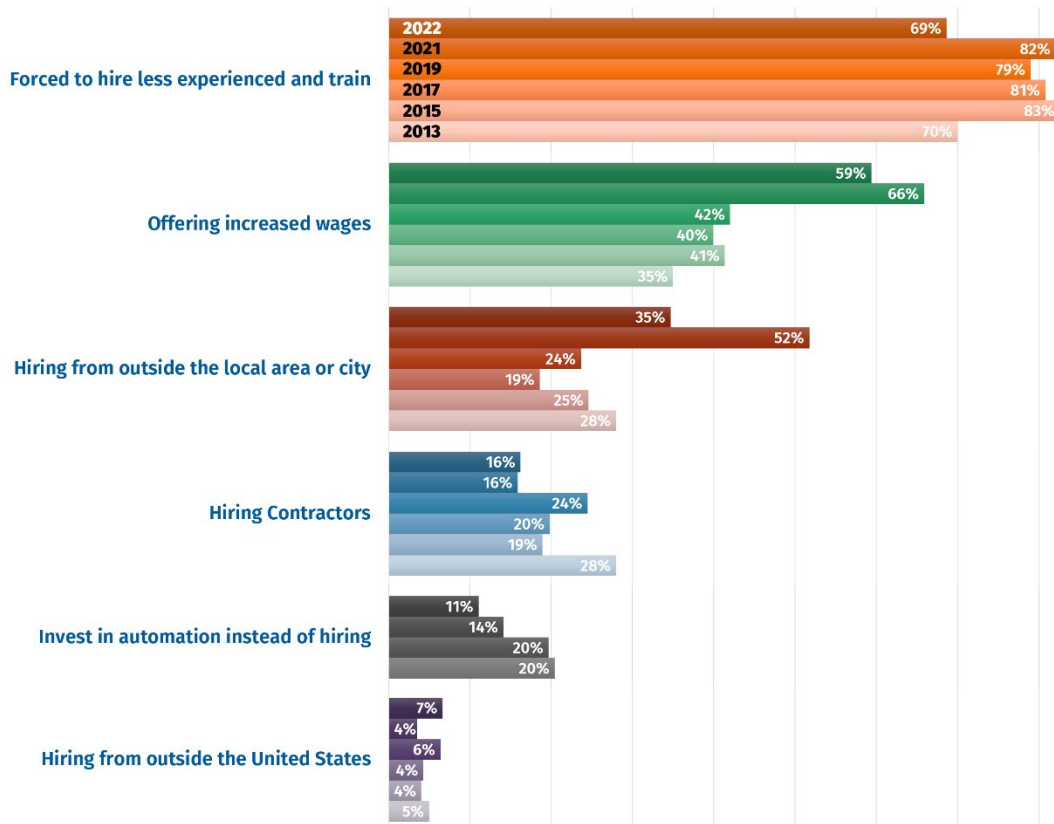
Average Skill Level Required to Meet Skill Shortages



When asked what measures they were taking to meet applicants' skill shortages, 69% of employers reported they were forced to hire less experienced workers and train them, which has consistently been the most common response. The second most common response continues to be offering increased wages (59%), a measure that increased greatly from pre-pandemic surveys, reaching its highest value ever last year (66%).

Hiring from outside the St. Louis metropolitan area spiked in 2020 (52%), and while falling this year it is still at an elevated level (35%) compared to responses from before the pandemic. The decline in hiring contractors (16%) remains, interest in investing in automation instead of hiring (11%) continues a downward trend, and hiring from outside the United States (7%) is used at a low level.

Measures Taken to Meet the Skill Shortages of Applicants

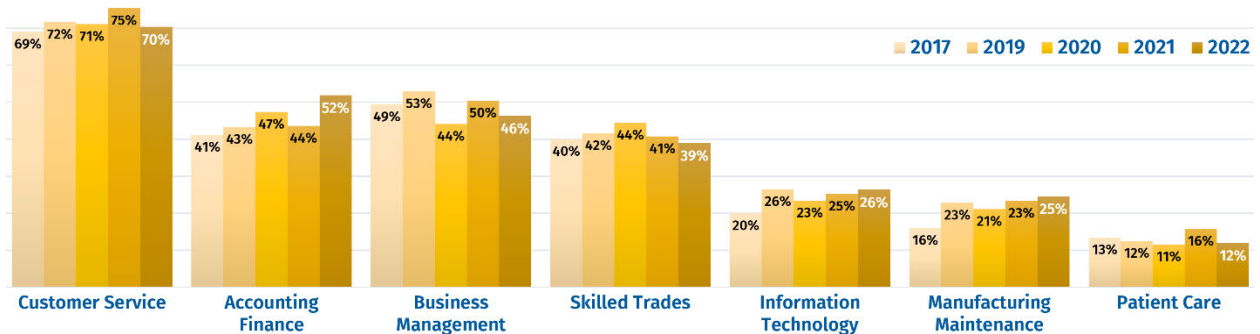


Skills Shortages in Functional Areas

Since 2017, our survey has asked employers about their workforce in seven key functional business areas: accounting/finance, business management, customer service, information technology, manufacturing/maintenance, patient care, and skilled trades.

We asked if employers employ workers in these functional areas and whether they are having challenges finding skilled applicants for these positions. Employers reported increased shortages this year for manufacturing/maintenance and accounting/finance over 2021, with five of the seven categories still reporting higher applicant shortages than before the pandemic.

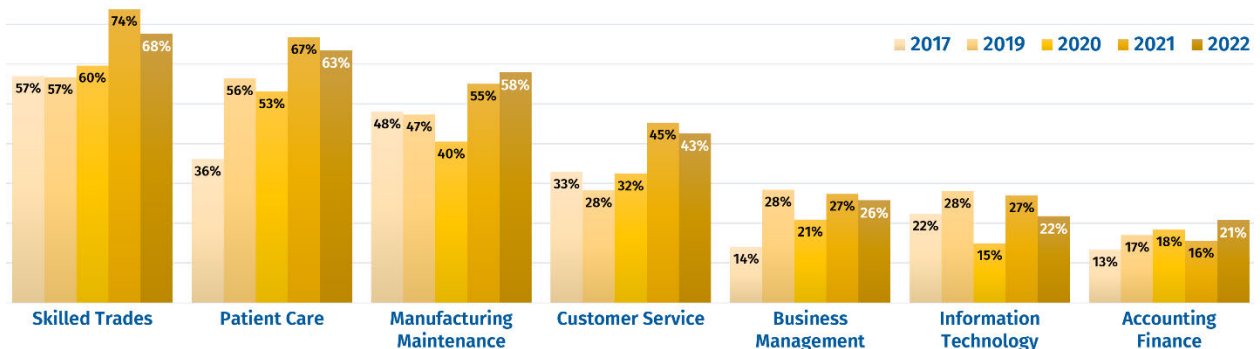
Percentage of Firms that Employ Specific Business Functions



The highest employer shortage response again was in the skilled trades functional area, with 68% of those companies employing skilled tradespeople seeing a shortage of skilled applicants, 6% lower than last year, but still 8% higher than 2020. Skilled trades has remained the leading functional area shortage since we started asking this question.

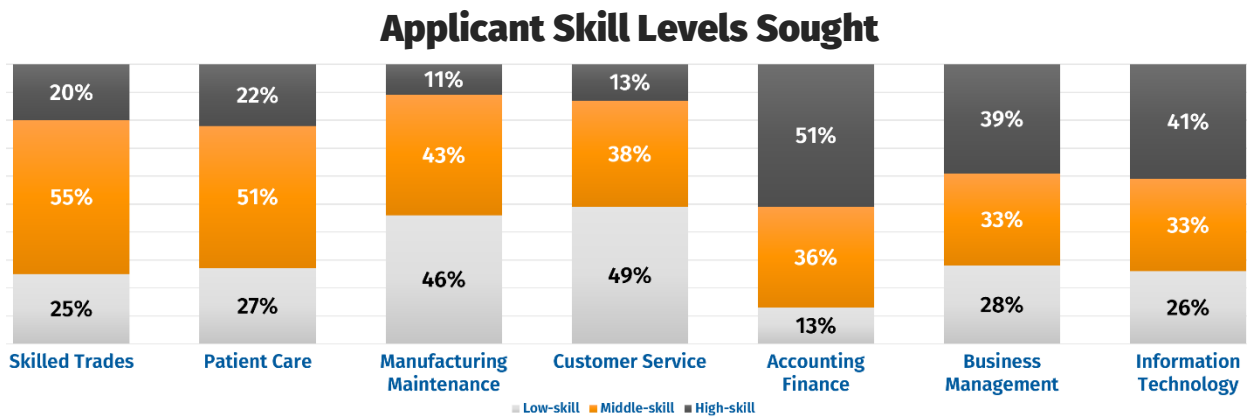
COVID-19 continues to drive enhanced levels of shortages in the patient care functional area, with the second-highest response at 63%, also slightly down from last year but still 10% higher than 2020. Manufacturing/maintenance was the third most common response, with 58% of employers reporting shortages for this function, an increase from prior years and the highest level ever for this functional area. The shortage in customer service functions held the fourth-most common response at 43%, another large increase from the 2020 (32%) and pre-pandemic results.

Firms Reporting Applicant Shortages in Functional Areas



Although training programs and open jobs in information technology roles receive extensive discussion and media coverage, only 22% of our respondents indicated a shortage of IT applicants. This is a 5% decrease from last year and matches the 2017 level. Shortages of applicants in business management (26%) was similar to last year, and shortages in accounting/finance increased 5% (to 21%) from the 2021 report.

In order to gauge the skill level required to meet the shortages in each of these seven functional areas, employers were given a choice of high-skill, middle-skill, or low-skill (as previously described in the *Shortage of Applicants* section).



Skilled trades (55%) and patient care (51%) continued to report the greatest shortages for middle-skill (requiring training or education beyond high school but less than a four-year degree) applicants with middle-skill applicants required to meet over half of their job shortages. Manufacturing/maintenance and customer service saw slight shifts towards low-skill positions. This year’s responses for manufacturing/maintenance were slightly higher for low-skill (46% in 2022, 42% in 2021) than middle skill (43% in 2022, 46% in 2021). Customer service also saw increased need for low-skill (49% in 2022, 43% in 2021) over middle-skill (38% in 2022, 46% in 2021) applicants.

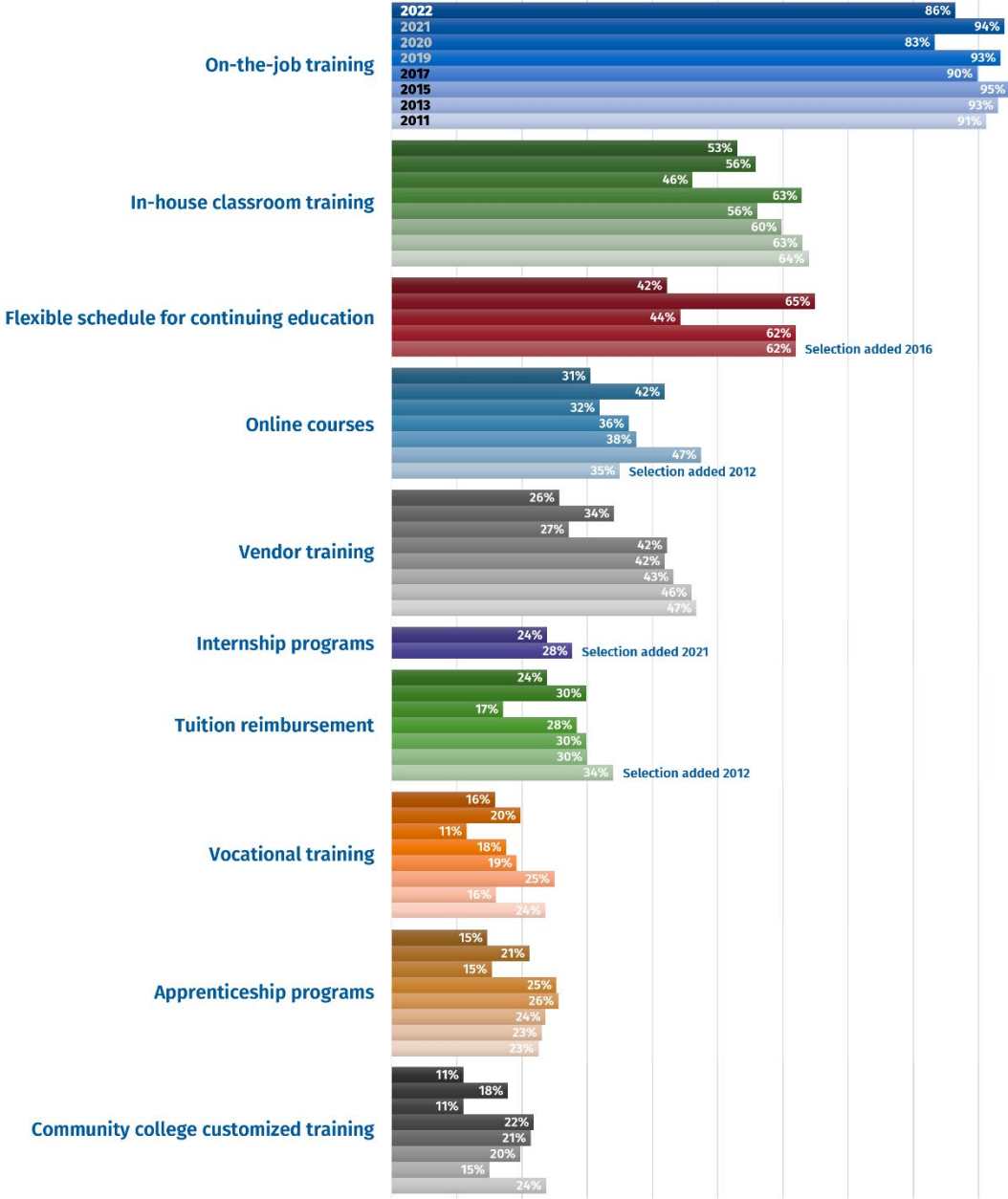
Accounting/finance had a dramatic shift this year (51% compared to 34% for 2021) towards high-skill requirements. Business management also saw a shift towards high-skill jobs, now 39% compared to 32% in 2021. Information technology saw a shift slightly away from high-skill and significantly towards low-skill jobs. Low-skill IT positions increased to 26% this year from 10% last year.

Methods of Skill Acquisition

On-the-job training remained the most common method to assist workers in obtaining new or increased skills, with 86% of employers citing this method. It is the “go to” option for most employers, and it has been the leading method since we started asking this question over a decade ago. In-house classroom training (53%) is the second most common method, followed by flexible schedule for continuing education (42%) which had increased sharply in 2021 (to 65%) and now returned to the 2020 level.

A number of the methods saw increases in 2021 that have returned to lower levels this year. This includes online courses (42% in 2021, 31% in 2022), vendor training (34% in 2021, 26% in 2022), tuition reimbursement (30% in 2021, 24% in 2022), apprenticeship programs (21% in 2021, 15% in 2022), and community college customized training (18% in 2021, 11% in 2022).

Methods for New or Increased Skill Acquisition

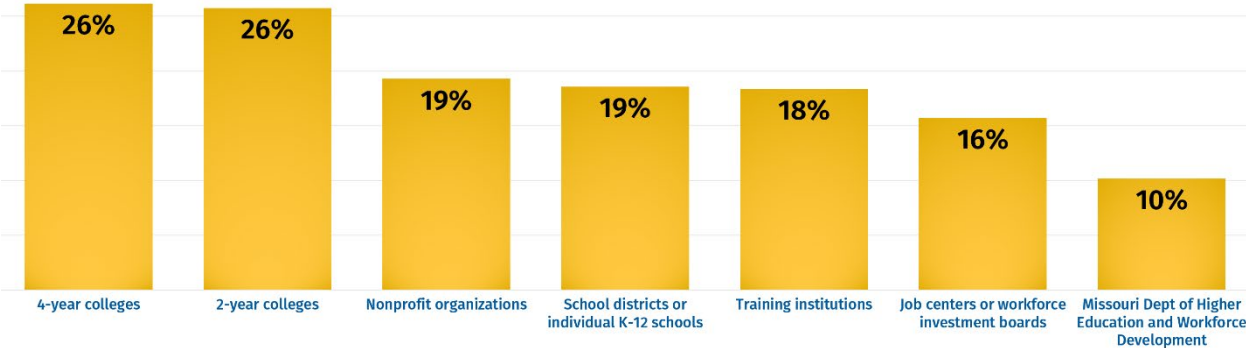


Although there are overall drops in assisting workers with acquiring skills again this year—a drop we also saw before at the height of the pandemic in 2020—only 7 employers told us they do not need any new or increased skills. Training and reskilling of workers is essential to support economic growth, and workers need to upgrade or acquire new skills to remain employable.

Sourcing Talent

To understand the talent pipelines in use by employers, we asked a new question this year, “Do you currently have partnerships with any of the following organizations to help you source talent?” Over a quarter (26%) of employers responded they partnered with 2- and 4-year colleges and universities, followed by nonprofit organizations (19%), K-12 schools or districts (19%), and training institutions (18%).

Current Partnerships to Source Talent



Four percent indicated they used professional associations and 3% relied on recruiters like Indeed. A few employers shared that they use advertising (4%), referrals (2%), and staffing agencies (2%) for sourcing their talent.

Missouri Job Centers and other workforce resources through the Missouri Department of Higher Education and Workforce Development are underutilized in regions across the state. From start to finish, Missouri Job Center staff and the Office of Workforce Development’s Employer Relations and Engagement team actively work with businesses to identify needs and provide workforce solutions. This no-cost employment assistance includes job matching and business counseling. Job Centers can help businesses write job descriptions, post job orders, promote job openings, host recruitment events, and select job candidates. Job Centers can also arrange interview space in a Job Center and have candidates take job assessments to identify skill levels. Missouri employers can find their local job center at jobs.mo.gov.

Experience and Education

In order to understand potential barriers to entry into the workforce, we ask employers each year about the percentage of their positions that require specific levels of experience and education.

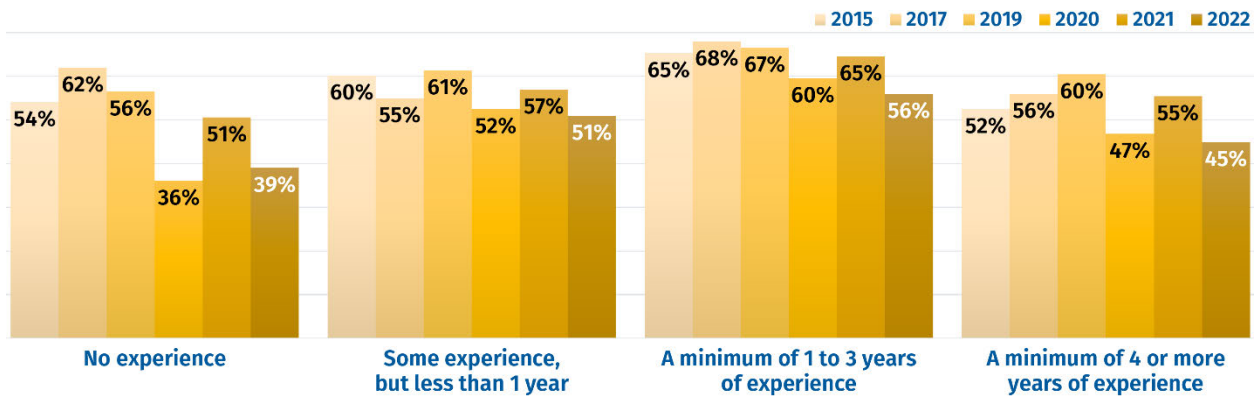
With the many impacts of the pandemic in 2020, we saw concerning responses that employers had far fewer positions for those with no experience or for graduates of short-term training programs. Our 2021 survey found experience-level requirements more typical of the pre-pandemic norms. The 2022 survey saw employers changing the rating of their total positions towards requiring a minimal amount to a few years’ experience, and away from jobs available for those with no experience.

Experience Requirements

After across-the-board increases in specified experience levels for jobs last year, 2022 brought decreases at each level, much like 2020. This year, the number of firms that have positions at each experience level is down considerably from before the pandemic by between 10% and 17%.

Over half (51%) of employers now have positions that require some experience, but less than 1 year (down from 61% in 2019) and 56% have positions requiring a minimum of 1 to 3 years of experience (down from 67% in 2019). Fewer employers (45%) have jobs that require a minimum of 4 or more years of experience, dropping from both last year (55%) and pre-pandemic responses (60% in 2019). Only 39% of employers have jobs requiring no experience, the largest drop for this year and a drop of 17% from 2019.

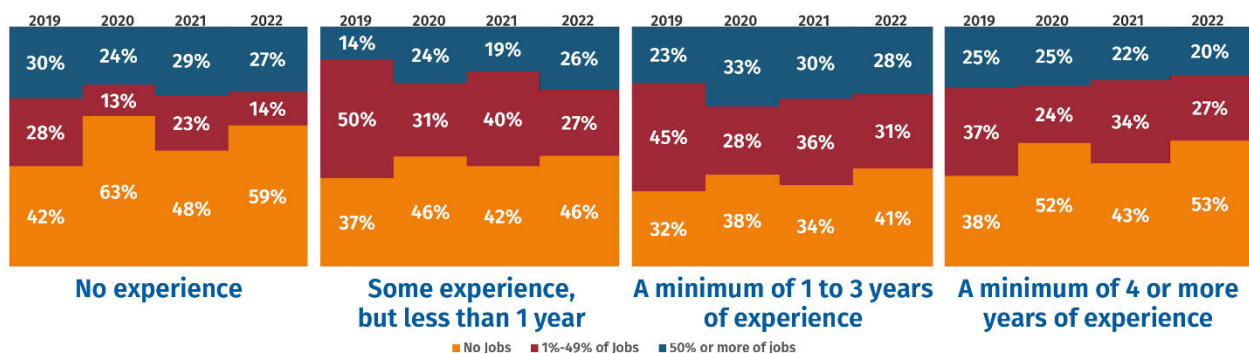
Employers with Jobs at Specified Experience Levels



Our survey also examines the percentage of jobs each employer has that requires each of the various experience levels. Fifty-nine percent of employers indicated that they have no jobs for those with no experience, an increase from last year (48%), but not as high as 2020 (63%) when the large number of available workers allowed employers to select individuals with experience.

Over a quarter of employers say that 50% to 100% of their total jobs require either no experience (27%), some experience (26%), or 1 to 3 years experience (28%).

Percentage of Positions Available for the Indicated Level of Experience

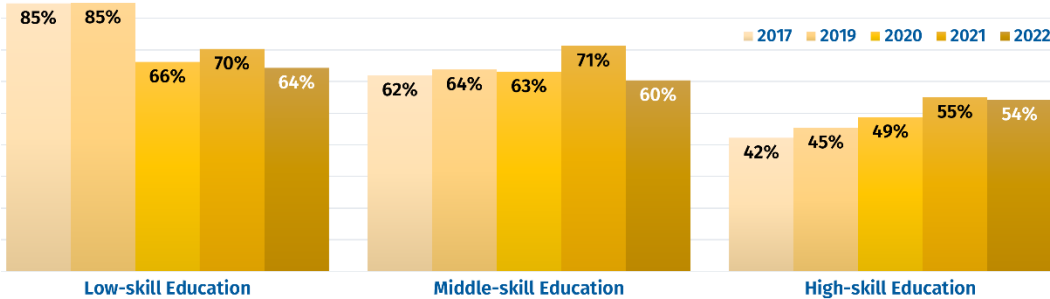


Education Requirements

We asked employers about the education requirements for their positions at each of the skill levels. These levels are defined as high-skill (requiring a four-year degree or higher), middle-skill (requiring training or education beyond a high school diploma but less than a four-year degree), or low-skill (requiring a high school diploma or less).

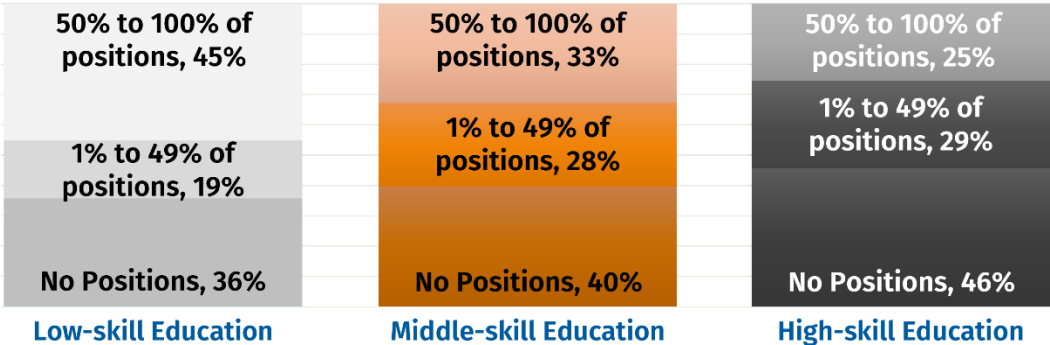
Sixty-four percent of employers have jobs for those with a low-skill education, significantly down from the 85% of employers pre-pandemic. The number of employers with middle-skill jobs is also slightly down to 60% from a high of 71% last year.

Employers with Jobs at Specified Education Levels



The number of employers with positions for high-skill employees has slowly trended up over the last five years. We saw this trend towards high-skill this year in responses to other questions. In combination with the drop in experience requirements in the previous section, we may be seeing a shift this year from experience to high-skill education when evaluating job candidates. Employers have used high-skill education as a proxy for more capable candidates, as those individuals have demonstrated perseverance and success by completing their degree.

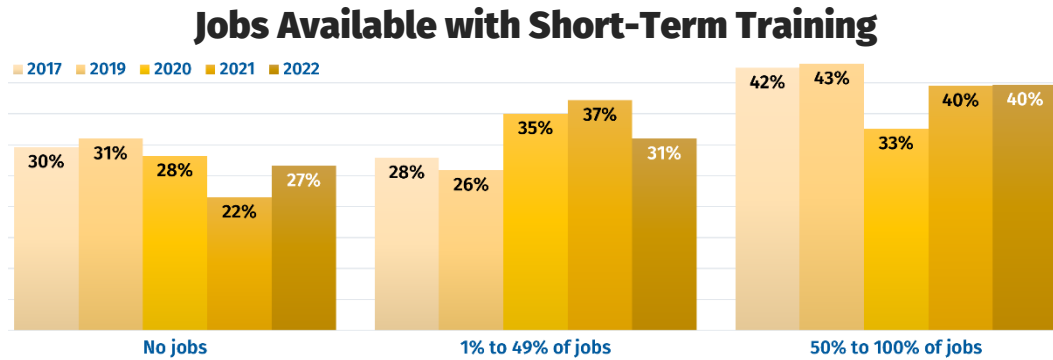
Positions by Specified Education Levels



Employers were also asked about the percentage of total positions they had at each of these levels, with the biggest changes noted in the low- and high-skill responses. While just 15% of employers pre-pandemic stated they had no positions for those with low-skill education, this has more than doubled in 2022 to 36%. The change in high-skill positions is most clearly seen in the 50% to 100% of positions response, which was 11% in 2019 and is 25% in 2022.

Opportunity and Advancement

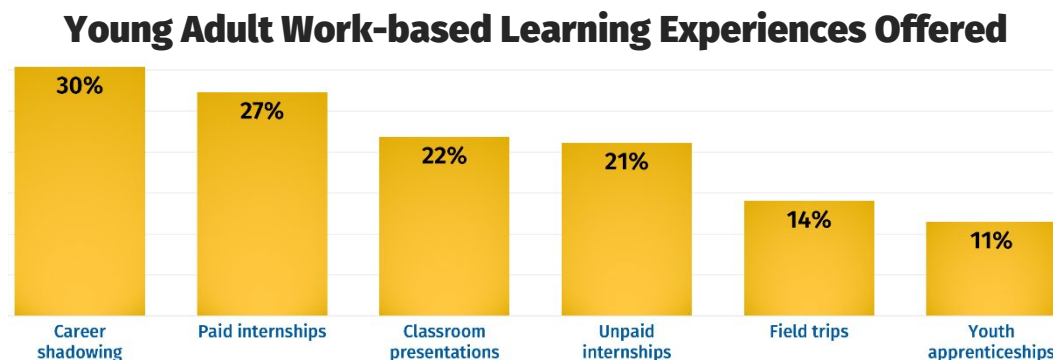
We asked employers about the percentage of jobs in their organizations that would be available to applicants who had completed short-term training, defined as training relevant to their industry and taking six months or fewer after finishing a high school diploma to complete.



The great news is the percentage of companies reporting jobs available to these individuals has been remarkably consistent over the past eight years—normally between 68% to 72%. This year is no exception, with 71% of employers responding they had positions available for those with short-term training—31% reported having fewer than half of the jobs in their business available, while four-in-ten companies reported more than half.

Experience Opportunities for Young Adults

Employers participating in the survey were asked for the first time this year if their business offers work-based learning experiences for students and young adults and how they offer it. The highest overall response categories were career shadowing (30%), paid internships (27%), classroom presentations (22%), and unpaid internships (21%).



Of the firms not currently offering work-based learning experiences, 20% indicated they would be interested in doing so.

Employment Barriers

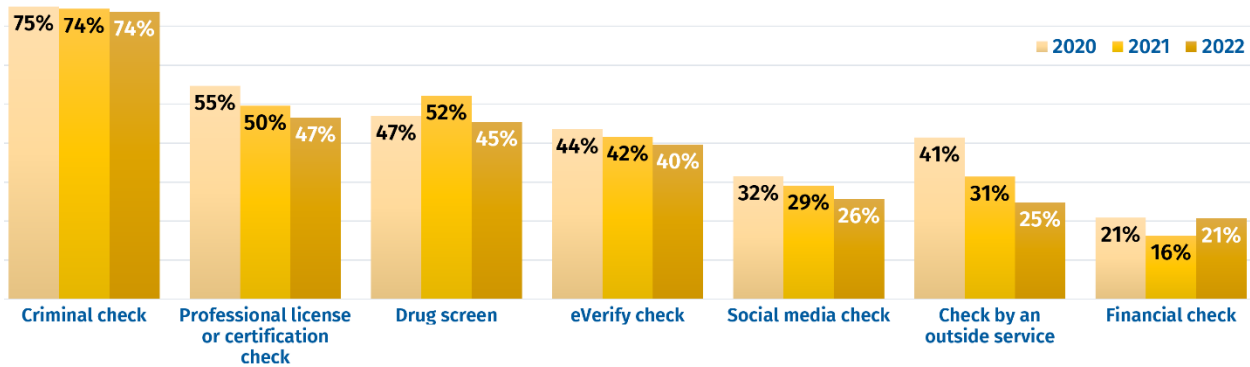
Our 2015 and 2019 reports examined barriers that have historically prevented some individuals from joining the labor force, such as criminal convictions or background checks. Since 2020 we have examined pre-employment checks in more detail, and continued to track employer trends for justice-involved job candidates.

Pre-employment Screening Checks

In 2019, 99% of employers required a background check for 50% to 100% of all positions available at their organizations. In 2022, (a still high) 74% required a criminal check prior to hire, 47% required a professional license or certification check, 45% required a drug screen, and 40% an eVerify check.

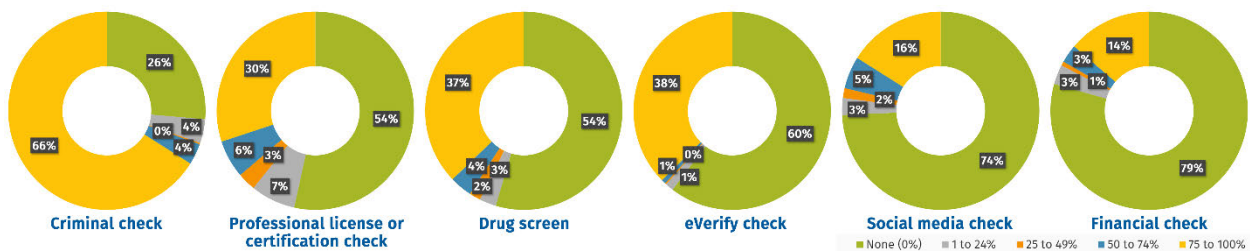
Criminal checks tracked closely to the 2015, 2020, and 2021 figures, with professional license, eVerify, and social media checks slowly decreasing over time. Significantly fewer employers now require a drug screen, declining from 61% in 2019 to 45% for 2022. Fewer employers continue to use an outside service to perform checks.

Companies Requiring Pre-employment Screening Checks



As we had seen in the last two years, many of the pre-employment screening checks are an “all or nothing” affair. For example, two-thirds (66%) of companies require criminal checks on at least three-quarters of their jobs, while 26% of companies do not require these checks for any position. Drug screening was more of an even split, with 41% of employers requiring this for half or more of their jobs, and 54% not requiring it at all.

Percentage of Jobs Requiring Screening Checks



Only 14% required financial checks for most (75% to 100%) of their jobs, while 79% do not require this screening for any job, with 7% somewhere in between. Social media

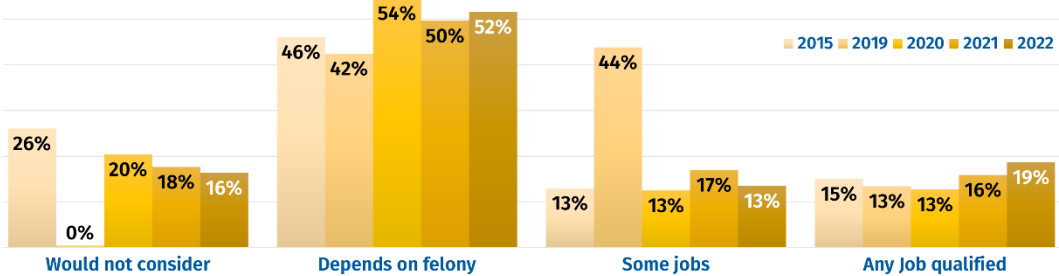
checks closely resembled financial screenings, with only 21% requiring it for more than half their jobs while 74% did not require it for any. A professional license or certification check was the most mixed result, with slightly over half of employers (54%) not requiring it at all, 30% requiring it for at least three-quarters of their jobs, and 16% somewhere in between.

Justice-Involved Individuals

In 2015, approximately a quarter (26%) of companies responding to the survey would not consider hiring an applicant convicted of a felony offense who had completed his or her sentence and/or probation.

For 2022, slightly under one-sixth (16%) of the companies respond they would not consider such an applicant, while a little over half (52%) said it depended on the felony. Nineteen percent, the highest value ever for this selection, stated they would hire a justice-involved candidate for any job for which they were qualified.

Employer Positions for Justice-involved Individuals



Two of the responses from 2019 are obviously outliers, but a couple of welcome trends are coming into focus—employers are less likely to rule out justice-involved individuals and more likely to hire them for jobs for which they’re qualified. Employers are working out where they are with the middle options.

Diversity, Equity, and Inclusion Initiatives

DEI initiatives are programs and policies that aim to promote representation and encourage participation of employees from all walks of life.

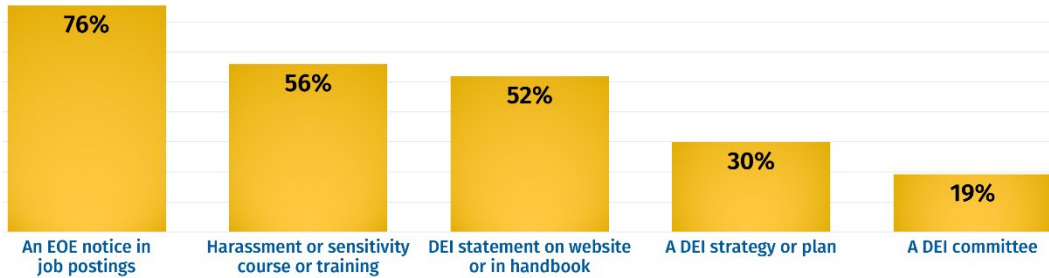
Diversity generally refers to having a workforce composed of individuals with different backgrounds, incorporating the unique perspectives that come from varied demographic experiences.

Equity relates to fairness and impartiality, that employees be treated the same and given the same access and opportunities, while acknowledging that some individuals face more barriers than others.

Inclusion is about creating a culture where everyone feels comfortable being themselves, embracing individuals for their differences, and eliminating discrimination and bias.

In order to gauge what aspects of DEI businesses incorporate, this year's survey asked about their initiatives and planning. Over three quarters (76%) of the businesses reported addressing DEI by using an Equal Opportunity Employer (EOE) notice in their job postings. Over half (56%) offer a harassment or sensitivity course or training, and 52% include a DEI statement on their website or in employee handbooks. 30% have a DEI strategy or plan, and 19% have a DEI committee.

Diversity, Equity, and Inclusion



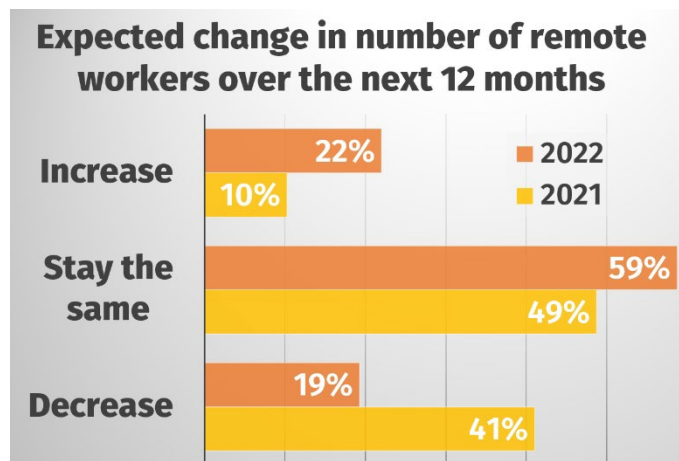
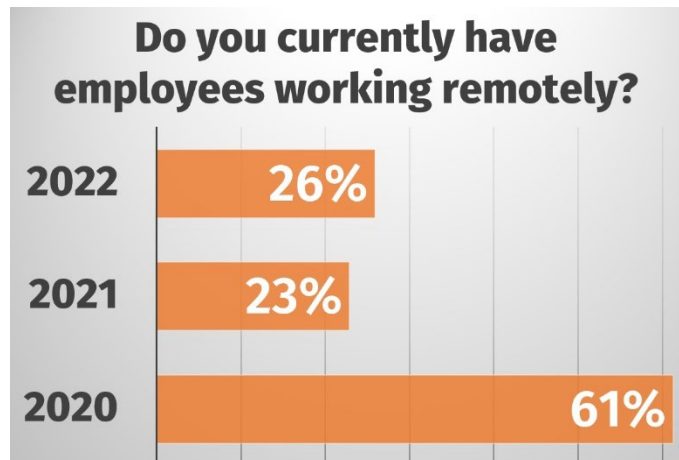
Remote Work

The COVID-19 pandemic had an unprecedented impact on the economy and day-to-day business operations. Since its onset, most employers had to adjust operations, which, in some cases, meant remote work arrangements.

In 2020 this meant more than six-in-ten businesses (61%) had employees working remotely. Many employers (34%) experienced challenges with the shift to remote work, including the need to change business practices, job roles not suitable for remote work, team and collaboration issues, and broadband and technical support.

2021 saw a dramatic decline in the number of firms reporting employees working remotely, down to only 23%. Half of 2021 employers expected the number of remote workers to stay the same, but 41% expected a decrease.

This anticipated decrease did not happen. 2022 brought a nearly 3% increase, to 26%, in the number of employers with remote workers. Over double the number of businesses (22%) compared to 2021 expect

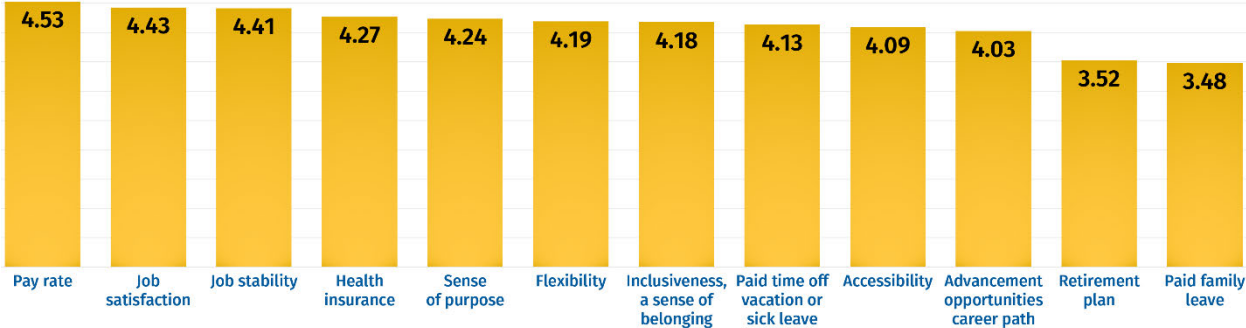


to increase the number of remote workers over the next 12 months, more (59% vs. 49%) expect their level of remote workers to stay the same, and only 19% (compared to 41%) expect the number of remote workers to decrease.

What Makes a “Good Job?”

Finally, another new question was added to understand the characteristics that best define a “good job” by asking employers to rank the importance of job characteristics on a 1 to 5 scale where 1 was “not at all important” and 5 was “very important.”

Characteristics of a “Good Job”



Employers responded that the top characteristic was pay rate (4.53), closely followed by job satisfaction (4.43), and job stability (4.41). Health insurance (4.27) and sense of purpose (4.24) were the next two highest weighted average responses. These responses align with recent articles from SHRM, Forbes, and Fast Company which rated pay rate, job satisfaction, and job security as the most important factors of a “good job.”

Spotlight on Startups



The words “startup” and “entrepreneur” sound trendy and edgy. Looking past the glam and glitter, startups are based on hard work and the desire to solve a problem or fill a need. Importantly for St. Louis, startups are vital to the economic growth of a region. New and young firms are the primary source of job creation in both urban and rural communities in the U.S., according to the Ewing Marion Kauffman Foundation. Large corporations may grow and add jobs, but they are equally adept at creating efficiencies in their businesses with the goal of producing more with fewer resources. Startups are where the truly new jobs in an economy happen.

Startups begin with a person and an idea. From there, the progression (hopefully) is building enough of a concept or product that leads to sales and revenue, possibly raising investment capital, and hiring employees

along the way. Entrepreneurship at any level is not magic; it is hard work, taking risks, and wanting to pursue an opportunity. And it takes talented, dedicated people to work alongside the founder to build that dream. Those employees are the people of our community. Just like employees of any large corporation, they need to be trained and prepared for those jobs. Entrepreneurship is core to our community. It is core to our economy. And it is core to St. Louis’ employment growth.

Startups occur in every industry sector, though they may follow different paths of growth and funding. It is relatively easy to find venture capital data from Pitchbook and Crunchbase for the high tech and high growth firms accessing investment, but it is impossible to track the funding that most small businesses use from personal debt, credit cards, friends and family investment, and bank loans. While most startups that we see in the headlines are funded by venture capital, these firms make up less than 1% of all startups. Many startups are technology- or science-focused companies. That means that 99% of the startups are accessing funding from sources of debt, and it also means that we probably haven’t heard of most of those companies in the media.

Startups are where the truly new jobs in an economy happen

Entrepreneurship is core to our community. It is core to our economy. And it is core to St. Louis’ employment growth.

The startup data that follows was sourced from MOSourceLinksm, in partnership with TechSTL, Lindenwood University, and ITEN. The data from MOSourceLink quantifies the impact of new firms on the St. Louis economy. The report uses the Quarterly Census of Employers and Wages. Employment and wage information is collected for workers covered by unemployment insurance laws and covered by the Unemployment Compensation for Federal Employees program. This dataset contains information on employers and workers that can be explored to generate measurements of and insights into an entrepreneurial ecosystem.

New firms (startups) are defined as the first appearance of an establishment in the QCEW dataset with fewer than 20 employees (this eliminates large companies moving to the state). The year-to-year comparison covers data regarding job creation by new firms, number of employees, wage growth, and the industrial density of startups.

Job Creation by First-Time Employers

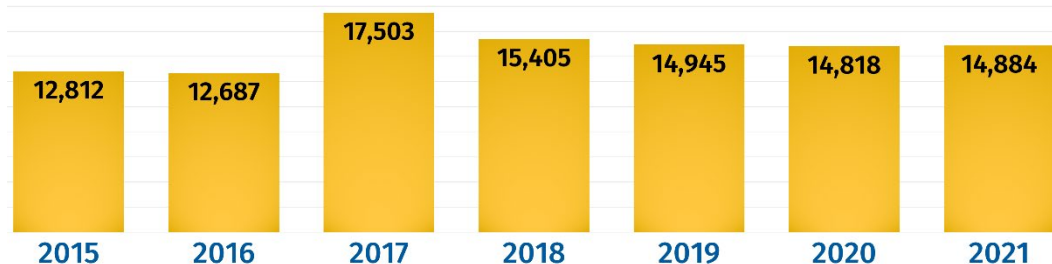
First-time employers in St. Louis that employed fewer than 20 employees created 14,884 jobs in 2021. This regional contribution is part of the 40,544 jobs created by startups in Missouri last year, or 36.7% of the new jobs created in the state. (This is in line with the St. Louis development area comprising about 40% of the state’s economy.)

**St. Louis startups created
14,884 jobs in 2021**

New job creation by first-year startups has been steady since 2018, staying close to the seven-year average of 14,722 jobs. That bears repeating: 14,722 jobs created by first-year startups each year, every year in St. Louis.

In total since 2015, 103,054 new jobs were created in the St. Louis region by first-year startups.

St. Louis Region Jobs Created by First-time Startups by Year



Source: MOSourceLink. Includes St. Louis City as well as the Missouri counties of St. Louis, Franklin, Warren, Jefferson, Lincoln, and St. Charles.

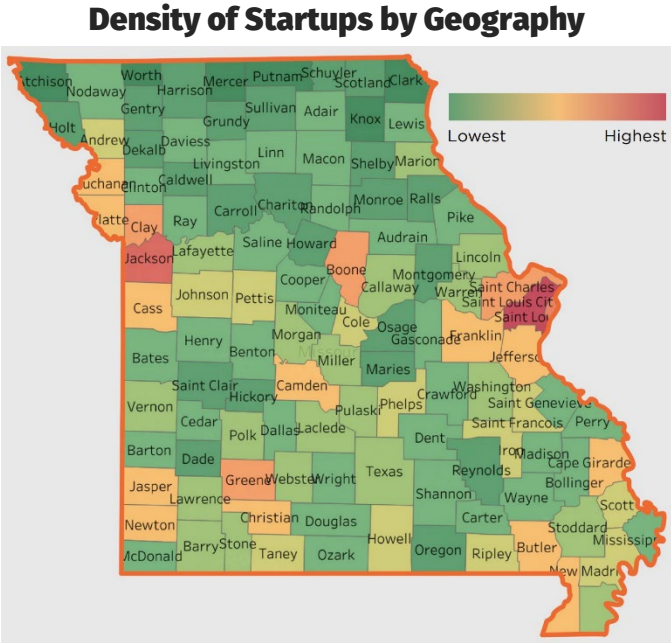
Startups are a high-risk business, and not every business that opens continues to grow. According to the U.S. Bureau of Labor Statistics, about 20% of small businesses fail within their first year. In Missouri, 55% of first-time businesses are no longer employing anyone four years later. Nonetheless, the companies that do survive continue hiring and make up for the jobs lost by other firms closing. In Missouri, for example, startups founded since 2017 have hired a net total of 187,430 employees.

Startups by Geography

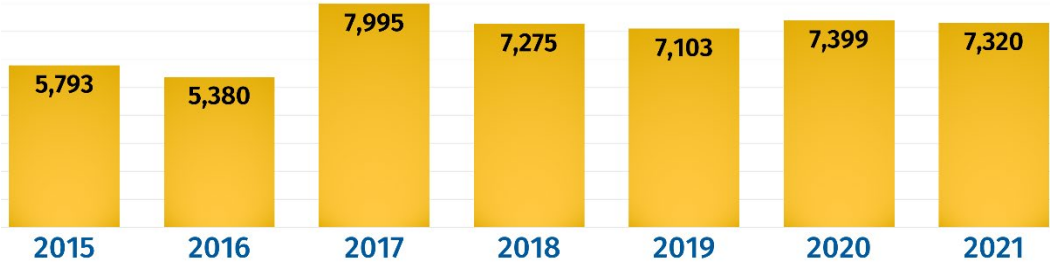
This report identifies a first-year startup as a firm hiring its first employee. Using this definition, St. Louis created 7,320 startup firms in 2021, down slightly from 7,399 in 2020. As might be expected, most of the firms cluster in the state’s population centers, although there are first-time employers located throughout the state, as depicted in this heat map from MOSourceLink’s *Show Me Jobs* report.

St. Louis County has the highest density of startups of any county in Missouri, as noted by the deep orange color.

Map source: Meyers, Maria E.; and Krajack, Jon. *Show Me Jobs: The Impact of First-Time Employers on Job Creation in Missouri*. MOSourceLink, August 2022. Reproduced with permission.



St. Louis Region First-time Startups by Year



Source: MOSourceLink. Includes St. Louis City as well as the Missouri counties of St. Louis, Franklin, Warren, Jefferson, Lincoln, and St. Charles.

Startups by Industry Sector

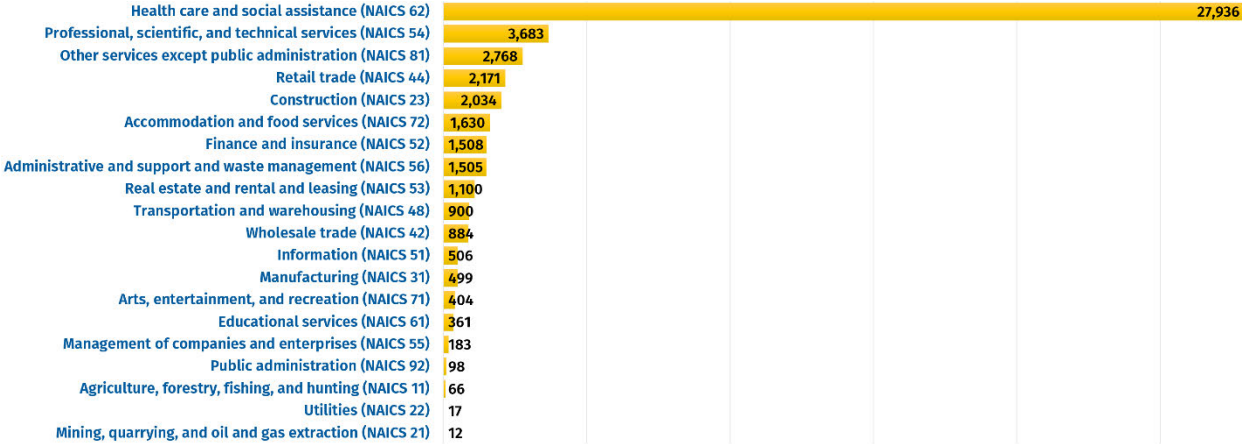
Startups are focused in the same industries in the St. Louis region as overall employment. Health care and social assistance is the largest two-digit NAICS code for both startups and job creation. In the last seven years, 27,936 startups were launched in this industry sector alone, accounting for 57.9% of startups over this period, and a third of the jobs created by first-year startups since 2015.

The next largest concentration occurred in the professional, scientific and technical services NAICS code with 3,683 startups born since 2015, or 7.6% of all new startups. This accounts for most of the high growth/high tech companies started and nurtured through St. Louis’ entrepreneur support organizations (ESOs) such as Arch Grants, BioGenerator, Capital Innovators, CET, Elevate/Elevar Accelerator, ITEN and others. There are nearly 100 ESOs in the St. Louis region, including 11 accelerators, 25+ coworking spaces, and dozens of organizations providing mentoring, entrepreneur

education, connectivity, technical or industry training, and funding. Most of the ESOs were launched in the last decade, and the effects of those efforts are evident in the steady stream of tech and science startups that St. Louis experiences.

Other key industries for startup creation include retail trade, construction, accommodation and food service, and finance and insurance, though these all significantly trail the previous two categories. These industries mirror the top sectors for startups across Missouri.

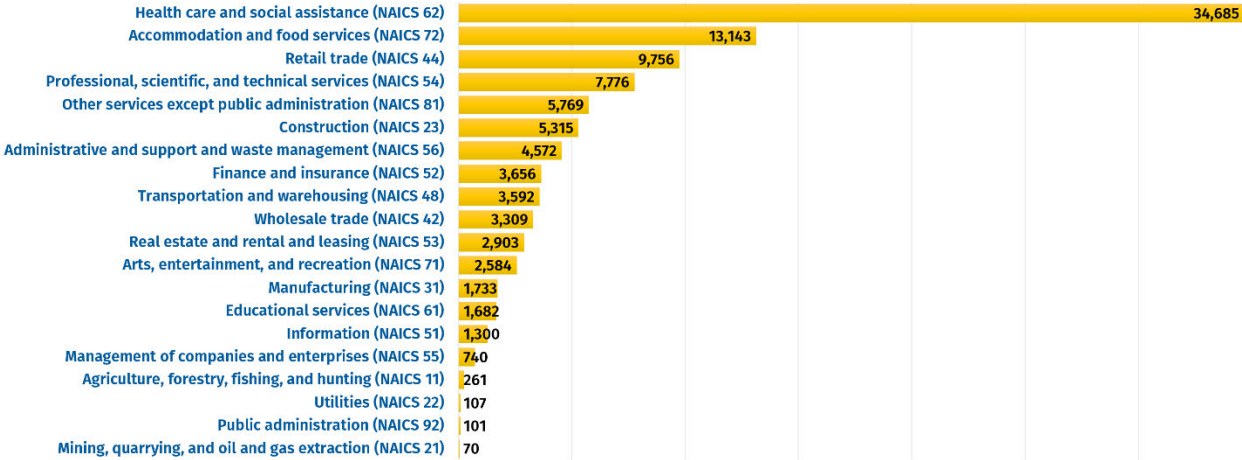
St. Louis Region Startups by Industry (2015-2021)



Source: MOSourceLink. Includes St. Louis City as well as the Missouri counties of St. Louis, Franklin, Warren, Jefferson, Lincoln, and St. Charles.

While the jobs created by first-year startups follow in the same key industries, they are less concentrated in health care and social assistance. Jobs are more evenly distributed in the other top NAICS codes, indicating a broader range of training and educational needs to support those startups.

St. Louis Region Jobs Created by Startups (2015-2021)

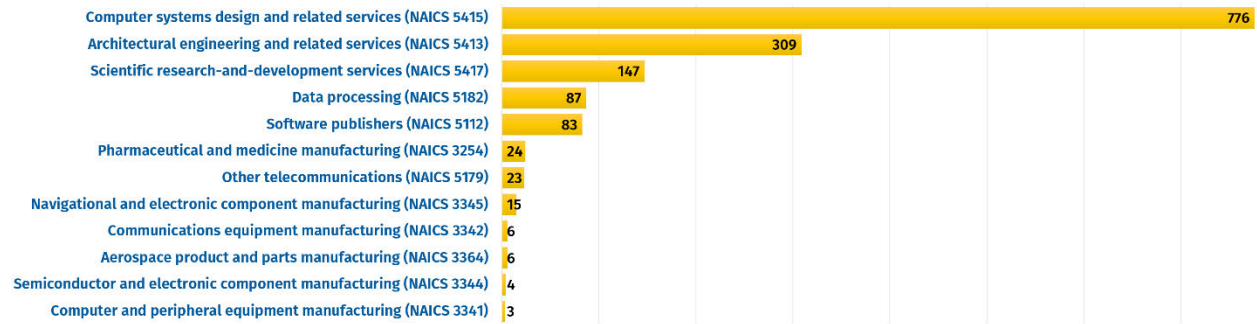


Source: MOSourceLink. Includes St. Louis City as well as the Missouri counties of St. Louis, Franklin, Warren, Jefferson, Lincoln, and St. Charles.

Technology Startups

In 2021, new St. Louis area technology startups created 540 jobs. Forty-one percent (105) of these 256 first-time startups were in computer systems design and related services, and another 16% were in architectural engineering and related services. The top St. Louis technology startup sectors are also the top tech startup sectors statewide.

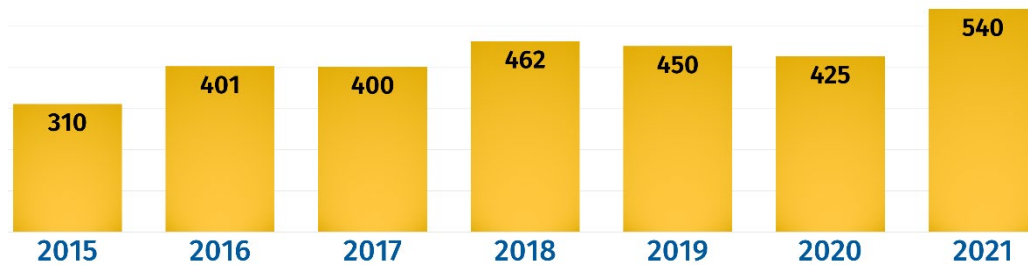
St. Louis Region Technology Startups (2015-2021)



Source: MOSourceLink. Includes St. Louis City as well as the Missouri counties of St. Louis, Franklin, Warren, Jefferson, Lincoln, and St. Charles.

St. Louis area technology first-time startups added, on average, 426 jobs for each of the previous seven years.

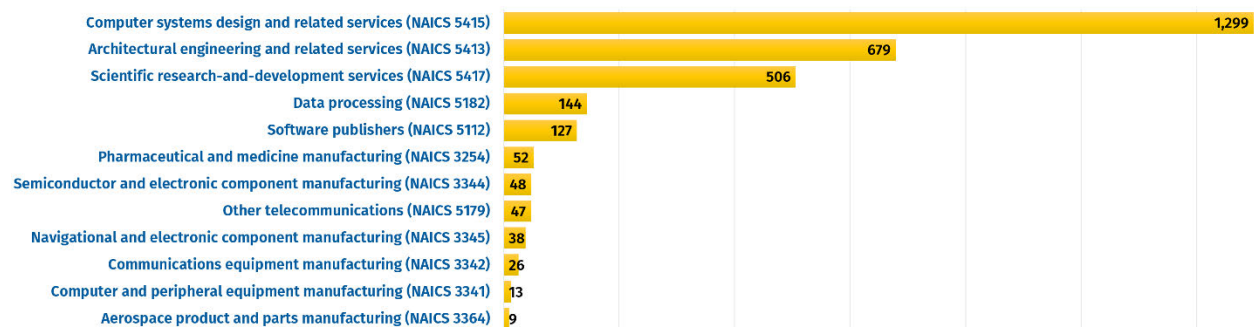
St. Louis Region Jobs Created by First-time Tech Startups



Source: MOSourceLink. Includes St. Louis City as well as the Missouri counties of St. Louis, Franklin, Warren, Jefferson, Lincoln, and St. Charles.

First-time technology startups in the St. Louis area created 2,988 jobs from 2015 to 2021. Computer systems design and related services accounted for 43% of those jobs.

St. Louis Region Jobs Created by Technology Startups (2015-2021)



Source: MOSourceLink. Includes St. Louis City as well as the Missouri counties of St. Louis, Franklin, Warren, Jefferson, Lincoln, and St. Charles.

Conclusion

The first-year startup data reveals several interesting trends. The vast majority of startups in the St. Louis region are in traditional services and products that will grow and remain as the fabric of our community and neighborhoods. These businesses are founded by a broader demographic of entrepreneurs, including minorities and women, than tech and science startups. It is important that the region nurture all types of businesses to build jobs in all sectors.

The high growth tech and science startups are important, too, as they add jobs more quickly and at a higher pay rate than the average startup. The investments in high-growth startups also return profits to local investors when they are acquired or go public. These returns are often invested in a new generation of startups, perpetuating a cycle of growth for the region.

Having a diversified portfolio of startups is as important as having a range of corporations in our region. Both startups and larger corporations contribute to the economy, and together they create a vibrant job market that is attractive to workers and to other companies considering a move to the St. Louis region.

Methodology

A new startup is identified with the first appearance of firm records in the employer file with no predecessor record in the Quarterly Census of Employment and Wages (QCEW). The QCEW contains individual records of wages paid for Unemployment Insurance (UI). In this method, new startups are new establishments. The QCEW data set does not include those who are self-employed or contract employees.

Firm-level job counts average employer-reported monthly employment in the QCEW employer file for quarterly observations. The number of jobs includes any employment – full-time, part-time and multiple jobs – but does not include those who are self-employed.

This report draws from raw QCEW data, and the statistical methods used for calculating total employment differs from the methods used for QCEW data published by the U.S. Bureau of Labor Statistics. The bureau uses a six-step statistical test we are unable to replicate.

The number of startups for each year counts the number of new firms with fewer than 20 employees in each quarter for a year.

The number of new jobs from startups is the number of jobs in Quarter 4 from new firms identified in Quarters 1, 2, 3, and 4.

Panelist Insights



Focus: Immigration

Betsy Cohen - Executive Director, St. Louis Mosaic Project, a program of the nonprofit World Trade Center-St. Louis within the St. Louis Economic Development Partnership

QUESTION: *What are some of the factors that are attracting foreign-born individuals to St. Louis?*

Betsy Cohen: We have a welcoming outlook as a region. We've welcomed a multitude of ethnicities and religions here, which I think we've seen by the range of people who have come and been accepted, and by the range of churches and mosques and temples that we have. There's a welcoming outlook for all different religions and backgrounds, and that plays well for us.

We've recently seen the announcement of an Afghan attraction plan through the International Institute led by Jerry Schlichter—one of our local lawyers—and some other business supporters, with over \$1,000,000 put toward starting an Afghan Chamber of Commerce, an Afghan Community Center, and an Afghan newspaper, as well as computer training and housing assistance.

At the kickoff meeting for the Afghan Chamber of Commerce, there were representatives of our Hispanic Chamber of Commerce, our Asian American Chamber of Commerce, our African Chamber of Commerce, Mosaic; everybody coming together to launch the Afghan Chamber of Commerce. That regional support will help us be a beacon to other Afghan people to come here.

That speaks to our goal of attracting more people who bring skills to join our workforce, to start businesses, and to be productive in our community.

QUESTION: *What are we seeing about the number of foreign students who are attending the region's universities?*

Betsy Cohen: Historically there have been about 9,000 in our region. We're probably not quite up to that post-COVID, but we'll be there soon, because our universities are growing and doing well. That continues to be a great source of talent, because so many of these students are the best and brightest from around the world. We have opportunities to keep them for a while, then to sponsor their visas in the future.

I read an interesting article when the COVID vaccines came out, highlighting four of the key scientists—who were at different stages in their careers—and were key to discoveries that contributed to the vaccines.

The article was about the research that had been done over the last two decades, and all four of the scientists who were highlighted were either first- or second-generation immigrants. It was a fascinating article and thank goodness those people stayed here. Thank goodness they wanted to apply what they had learned here, and they had the opportunities to make the contributions they did.

QUESTION: What impact do these second-generation immigrants tend to have on our community and workforce?

Betsy Cohen: Immigrant parents tend to focus on education for their children. Then that second generation tends to start tech businesses or scientific businesses, and I think that's something that gets overlooked in the immigration conversation: What the impact can look like a generation from now.

For example, there are so many second-generation Bosnian immigrants who have gone into engineering and sciences and technology and started companies. These were the children of Bosnian people who came here in the 90s, who got a tough but good start, raised families, and contributed to our region. Now we see that their children have flourished.

They have gone on to use all their talents. In many cases, their parents weren't able to use all their talents. It might be because their English wasn't as high as their skill level. It could be because they had degrees in another country that they couldn't immediately transfer here. But, boy, their children who are born here got the benefit of that American education and enterprise, and that has allowed them to flourish.

QUESTION: In addition to the International Institute and Mosaic, are there other organizations or resources that companies could reach out to if they want to understand more about hiring foreign-born individuals?

Betsy Cohen: There are chambers of commerce that are working collaboratively right now, and it's really outstanding. I talk to companies about where they can find employees and point to these chambers. The Hispanic Chamber for Metropolitan St. Louis has a new CEO and a very active job board. They host events every month. A company can host one of the monthly receptions, or join the Hispanic Chamber, or have an employee become a member. This builds bridges and relationships, which means the Hispanic community will then gravitate toward applying to jobs within the company. The Asian-American Chamber of Commerce is another example. They post jobs, they are very active, and companies can engage with them. There's an African Chamber of Commerce, which is growing. The new Afghan Chamber that is just getting off the ground will have job postings. The African Chamber of Commerce does have job postings.

Focus: Geospatial and Location Science

Andy Dearing - President, Spatial STL Advisors; Project Lead, GeoFutures, an initiative of Greater St. Louis, Inc.

QUESTION: Looking at geospatial across all industries, can you describe the types of skill sets that you think are going to be in highest demand in location sciences?

Andy Dearing: There is still the core science of gravitational models, and core GIS skills that will always be needed. What we've seen is a global trend of more data than we can actually deal with, and the geospatial industry has not been any different than other sectors in that regard. General tech skills are going to be needed, from computer programming and developing applications or other things around it, to data technicians, data scientists, data analysts, who really can extract the value out of the glut of information that we have available to us.

Something that's significantly increased the volume and velocity of data that we have here in geospatial has been the space industry—think SpaceX—and basically being able to schedule an Uber ride for your small satellite in relatively affordable and short order. That piece has created a great opportunity for us to understand the Earth better. But the challenge is, we're consumed with so much information because there are so many sensors out there, that we can't actually get the answers to the questions that we're asking and actually be better able to understand our world. And that's where data scientists, data analysts and data technicians come into play. They're all key to that.

If you look back 20 years, the names of those jobs were not even thought of. If we think about it today—the fourth industrial revolution—that's where the jobs of the future are going to be with geospatial.

QUESTION: If you think of the primary headquarters of geospatial to be Washington, DC, do you see St. Louis becoming the secondary hub of geospatial in the country?

Andy Dearing: NGA is a federal organization headquartered in DC. But DC doesn't have all of the things that we're building here. So, if you're a company that's wanting to engage with more than the federal government—maybe you want to do precision agriculture and government—then you can plug in here. I honestly feel like it's naturally going to happen. On the national security side of things, we have this secure space as a service. That's really different. DC is so competitive, and it's so hard to find talent out there. Companies can say, 'maybe move that requisition to St. Louis because there's a secure facility there where we can start moving secure, classified jobs,' that only used to be housed in DC or one of these uber-classified zones. They can start moving those opportunities out our direction. That's something I'm very interested in, and I think is an opportunity for us as well.

QUESTION: What are your thoughts on the need for geospatial jobs in both commercial companies and in government jobs that require security clearance. Does having a mix of opportunities open things up for businesses moving to St. Louis?

Andy Dearing: Yes, it's a case of NGA saying, 'hey, do we need to do all this stuff classified? Maybe we can carve out some unclassified opportunities and it can allow for those vendors to make some money or have more people work on some of these things.' You can get people working on agriculture or working on state and local government and start the clearance process and learn the skills and then be available if something spins up.

Focus: Tech-driven Healthcare and Startups

Danish Nagda, M.D. - CEO/Founder, Resilient Health

QUESTION: From a customer service standpoint, who do you see Resilient Health serving best in the community?

Danish Nagda: We've been very focused on people between the ages of 20 and 65 because they tend to be digital natives; they tend to be tech savvy. They're used to using Teams at work, they're used to "click and mortar;" they're used to this behavior. A large part of our model is focused on trying to find people before they get very, very sick. I think back to my own story with my dad. My dad worked at the same employer for many years, and he had access to health insurance. But like a lot of Americans, and actually even more importantly, a lot of immigrants, he never went to the doctor. At the age of 53, he had his first heart attack; at the age of 65, he was diagnosed with heart failure; and at the age of 69, he died. I was a caregiver for him throughout that experience, and I can tell you, my dad never really had a shot. If we could have found my dad at 52, he'd be healthy.

We want to find patients before that inflection point, and we want to keep them healthy. So early detection of underlying health issues before they become morbidities is our core focus. We're focusing on people who are young, younger than the people the current health system has been focusing on. I applaud the health system for focusing on people in the Medicare population. I think we need a lot of help in that population. But somebody's got to find them before they get sick and keep them healthy. That's what we're focused on.

QUESTION: How do you see COVID impacting what you're doing today versus how you may have approached this two years ago?

Danish Nagda: Companies we were pitching thought we were crazy before COVID. They legitimately thought these two guys are out of their minds. They thought, 'I can't get my doctors to FaceTime or text patients. And you're telling me patients are going to see doctors in a location with doctor-less clinics? What kind of crazy stuff is this?' And then

COVID happened and people said, 'that kind of makes sense, I think we can do that.' One of our customers has seen 20% adoption, another one has 30% adoption. Our NPS (Net Promoter Score) is above 95 right now.

I think our teams built an incredible product, but we can't take all the credit. People's behaviors and their expectations have changed. I think that hybrid model is here to stay. We're coming in with the tailwinds of the pandemic. The other big thing for us is people are really interested in their health now. Not only is that the case in LA and New York and San Francisco, but we're seeing a movement across the country now around how do I become healthier? How do I get a primary care doctor? You know, we're seeing young people coming in saying I want a primary care doctor, which is unusual. That was not the case before the pandemic.


QUESTION: What are upcoming trends that you think are going to be changing the healthcare industry?

Danish Nagda: I think patient expectations have changed. That is by far the biggest change that's happened. We're in that period like when Amazon first arrived on the scene. And people thought, 'I guess I can order clothes online, but how do I try them on?' You remember when we used to ask those questions? We're in that moment of healthcare. Where people are asking the question, 'How would I do this? I know there's this telehealth thing that was really big during COVID.' Patients just want the doctor's time. They want transparency in the conversation. In healthcare, they want convenience, they want access, and they want time, and that's it. That's what they want.

Biographies



Betsy Cohen
St. Louis Mosaic Project, Executive Director
The St. Louis Mosaic Project is a public-private partnership whose main goals are to attract and retain international people to St. Louis and for the St. Louis region to be the fastest growing major metropolitan region for foreign-born people by 2025.
Betsy Cohen is on the advisory board for the St. Louis University Chaifetz School of Business and on the Cortex Innovation Community committee for Diversity, Equity, and Inclusion.



Andy Dearing
*Spacial STL Advisors, President
GeoFutures Initiative, Lead*
Andy Dearing is a geospatial entrepreneur who serves as the lead for the GeoFutures Initiative, an enterprise of Greater St. Louis, Inc.
GeoFutures serves as the regional strategy for building an inclusive growth plan to support the development of St. Louis as the premiere global geospatial hub.



Danish Nagda, M.D.

CEO/Founder, Rezilient Health

Danish Nagda is a physician and was a caregiver for his father. He is a graduate of the University of Pennsylvania Perelman School of Medicine. Since the beginning of his ENT residency at Washington University in St. Louis, he has served in advisory roles for Doximity, Inventr, and Enterprise Bank & Trust. Rezilient is his full-time focus, where he and his team are bringing a new model of concierge primary care to St. Louis, before expanding nationwide.



William M. Rodgers III

Federal Reserve Bank of St. Louis

Vice President and Director of the Institute for Economic Equity

Before joining the Fed, William M. Rodgers III served as professor of public policy and chief economist at the Heldrich Center for Workforce Development at Rutgers University.

Rodgers is an elected member of the National Academy of Social Insurance and served as the Academy's board chair for the last five years. He also serves as treasurer for the Institute for Women's Policy Research.



Dr. Jeff Pittman

St. Louis Community College, Chancellor

Dr. Jeff Pittman brought his vision of affordable, quality education and customized workforce training to St. Louis Community College in 2015. Since then, he has worked to align the College's academic programs into clear career pathways, to match the skills students learn at STLCC to the skills they need in the industry and to ensure accessible education for all communities in St. Louis.



Phyllis Ellison

St. Louis Community College

Associate Vice Chancellor, Workforce Solutions Group

Phyllis Ellison is responsible for the overall development and management of corporate and community workforce development, continuing professional development and personal enrichment education, as well as managing entrepreneurial initiatives to meet the needs of the local, regional, and national workforce.

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We offer our deep appreciation to William M. Rodgers III of the Federal Reserve Bank of St. Louis, Betsy Cohen of the Mosaic Project, Andy Dearing of Spatial STL Advisors, and Dr. Danish Nagda of Resilient Health for sharing their insights on the economy and their respective industries.

We would like to thank MOSourceLink for their contributions and analysis of the startup data for the St. Louis region.

The 2022 *State of the St. Louis Workforce* report was made possible by the collaborative efforts of staff from the St. Louis Community College Workforce Solutions Group and the Missouri Economic Research and Information Center (MERIC), the research unit of the Missouri Department of Economic Development.

APPENDIX I: STATE OF THE ST. LOUIS WORKFORCE EMPLOYER SURVEY 2022

The employer survey was conducted as phone interviews on weekdays starting June 8, 2022 and ending July 20, 2022. Only complete surveys are used in this report.

Initial Question Employees		3. If you were to add employees in the next 12 months, which of the following methods would you use? (Read list; enter code for each method would use; enter all that apply.)	
First, including yourself, how many employees does your company CURRENTLY employ in your area?			
Less than 5 (Thank & Terminate)	01	Recalling furloughed workers	01
5 to 10	02	Recalling workers from a lay-off list	02
11 to 49	03	Hiring new full-time employees	03
50 or more	04	Hiring new part-time employees	04
(Do not read) Refuse - Thank & Terminate	97	Hiring contract workers	05
(Do not read) Don't know/Not sure - Thank & Terminate	98	Using a temporary agency	06
		(Do not read) Not applicable - Not wanting to add employees	95
1a. Over the past 12 months, would you say your employment levels have increased significantly (by 15% or more), increased slightly (by less than 15%), remained the same as before, decreased slightly (by less than 15%), or decreased significantly (by 15% or more)?		(Do not read) Would not use any listed method	96
Increased significantly, by 15% or more	01	(Do not read) Refuse	97
Increased slightly, by less than 15%	02	(Do not read) Don't know/Not sure	98
Remained the same as before	03	4a. Please tell me if you have encountered the following barriers to expanding your employment level. (Rotate barriers; ask "Any other barrier?" last)	
Decreased slightly, by less than 15%	04	Shortage of workers with knowledge or skills	01
Decreased significantly, by 15% or more	05	Shortage of available training programs	02
(Do not read) Refuse	97	Economic conditions	03
(Do not read) Don't know/Not sure	98	Government policies or regulations	04
		Lack of information regarding the occupation	05
1b. (If there was a significant increase or decrease in 1a) Was your significant increase or decrease due to COVID?		Lack of access to transportation to get to work	06
Yes	01	Lack of access to child care	07
No	02	Any other barrier? (If "Yes" - Record)	08
(Do not read) Not applicable	98	(Do not read) Have not encountered any barriers to expanding employment level	95
2. Looking ahead over the next 12 months, how does your business PLAN to change your employment levels? Would you say your employment levels will increase significantly (by 15% or more), increase slightly (by less than 15%), remain the same as before, decrease slightly (by less than 15%), or decrease significantly (by 15% or more)?		(Do not read) Not applicable - Not expanding employment level	96
Increase significantly, by 15% or more	01	(Do not read) Refuse	97
Increase slightly, by less than 15%	02	(Do not read) Don't know/Not sure	98
Remain the same as before	03	4b. (Re: each barrier named on Q.4a) Please tell me how large of a barrier each is to your business using a 1-to-5 scale where 1 is "insignificant" and 5 is a "critical barrier." You may also use any number between 1 and 5. And, if an item is not applicable to your business, please tell me so.	
Decrease slightly, by less than 15%	04	96 - Not applicable	
Decrease significantly, by 15% or more	05	97 - Refuse	
(Do not read) Refuse	97	98 - Don't know/Not sure	
(Do not read) Don't know/Not sure	98		

Shortage of workers with knowledge or skills	—		
Shortage of available training programs	—	5d-1. Please tell me if you have or have not noticed a significant number of applicants with a “Lack of communication or interpersonal skills.”	
Economic conditions	—	Have seen this characteristic in job applicants	01
Government policies or regulations	—	Have not seen this characteristic in job applicants	02
Lack of information regarding the occupation	—	(Do not read) Refuse	97
Lack of access to transportation to get to work	—	(Do not read) Don't know/Not sure	98
Lack of access to child care	—		
Other barrier	—		
5. Next, I am going to read some possible shortcomings of job applicants and ask if you have or have not seen these characteristics in a significant number of applicants during the last 12 months. I would then like you to rank the importance of that shortcoming to your business on a 1 to 5 scale where 1 is “not at all important” and 5 is “very important.”		5d-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?	
		(Do not read) 98 - Don't know/Not sure	
		Lack of communication or interpersonal skills	—
5a-1. Please tell me if you have or have not noticed a significant number of applicants with “Poor work habits” (including attendance, punctuality, and attention to job).		5e-1. Please tell me if you have or have not noticed a significant number of applicants with a “Lack of willingness to learn or inability to learn.”	
Have seen this characteristic in job applicants	01	Have seen this characteristic in job applicants	01
Have not seen this characteristic in job applicants	02	Have not seen this characteristic in job applicants	02
(Do not read) Refuse	97	(Do not read) Refuse	97
(Do not read) Don't know/Not sure	98	(Do not read) Don't know/Not sure	98
5a-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?		5e-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?	
(Do not read) 98 - Don't know/Not sure		(Do not read) 98 - Don't know/Not sure	
Poor work habits	—	Lack of willingness to learn or inability to learn	—
5b-1. Please tell me if you have or have not noticed a significant number of applicants with a “Lack of general knowledge about business or industry.”		5f-1. Please tell me if you have or have not noticed a significant number of applicants with a “Lack of teamwork or collaboration.”	
Have seen this characteristic in job applicants	01	Have seen this characteristic in job applicants	01
Have not seen this characteristic in job applicants	02	Have not seen this characteristic in job applicants	02
(Do not read) Refuse	97	(Do not read) Refuse	97
(Do not read) Don't know/Not sure	98	(Do not read) Don't know/Not sure	98
5b-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?		5f-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?	
(Do not read) 98 - Don't know/Not sure		(Do not read) 98 - Don't know/Not sure	
Lack of general knowledge about business or industry	—	Lack of teamwork or collaboration	—
5c-1. Please tell me if you have or have not noticed a significant number of applicants with a “Lack of ability to interact effectively with people of different cultures and socio-economic backgrounds.”		5g-1. Please tell me if you have or have not noticed a significant number of applicants with a “Lack of general computer skills.”	
Have seen this characteristic in job applicants	01	Have seen this characteristic in job applicants	01
Have not seen this characteristic in job applicants	02	Have not seen this characteristic in job applicants	02
(Do not read) Refuse	97	(Do not read) Refuse	97
(Do not read) Don't know/Not sure	98	(Do not read) Don't know/Not sure	98
5c-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?		5g-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?	
(Do not read) 98 - Don't know/Not sure		(Do not read) 98 - Don't know/Not sure	
Lack of ability to interact effectively with people of different cultures and socio-economic backgrounds	—	Lack of general computer skills	—
		5h-1. Please tell me if you have or have not noticed a significant number of applicants with a “Lack of critical thinking and problem solving.”	

Have seen this characteristic in job applicants	01	5l-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?	
Have not seen this characteristic in job applicants	02	(Do not read) 98 - Don't know/Not sure	
(Do not read) Refuse	97	Lack of technical skills specific to the job	—
(Do not read) Don't know/Not sure	98		
5h-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?		5m-1. Please tell me if you have or have not noticed a significant number of applicants with an "Inability to understand written and graphical information."	
(Do not read) 98 - Don't know/Not sure		Have seen this characteristic in job applicants	01
Lack of critical thinking and problem solving	—	Have not seen this characteristic in job applicants	02
		(Do not read) Refuse	97
5i-1. Please tell me if you have or have not noticed a significant number of applicants with an "Inability to think creatively or 'out of the box'."		(Do not read) Don't know/Not sure	98
Have seen this characteristic in job applicants	01	5m-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?	
Have not seen this characteristic in job applicants	02	(Do not read) 98 - Don't know/Not sure	
(Do not read) Refuse	97	Inability to understand written and graphical information	—
(Do not read) Don't know/Not sure	98		
5i-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?		5n-1. Please tell me if you have or have not noticed a significant number of applicants with an "Inability to pass a drug test or has a substance abuse issue."	
(Do not read) 98 - Don't know/Not sure		Have seen this characteristic in job applicants	01
Inability to think creatively or 'out of the box'	—	Have not seen this characteristic in job applicants	02
5j-1. Please tell me if you have or have not noticed a significant number of applicants with a "Lack of writing skills."		(Do not read) Refuse	97
Have seen this characteristic in job applicants	01	(Do not read) Don't know/Not sure	98
Have not seen this characteristic in job applicants	02		
(Do not read) Refuse	97	5n-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?	
(Do not read) Don't know/Not sure	98	(Do not read) 98 - Don't know/Not sure	
		Inability to pass a drug test or has a substance abuse issue	—
5j-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?			
(Do not read) 98 - Don't know/Not sure		6. Now we would like you to share the strengths you have seen in job applicants during the last 12 months. Please rank each strength on a 1 to 5 scale where 1 is "did not see this strength in any applicants" and 5 is "saw this strength in all applicants."	
Lack of writing skills	—	(Do not read) 98 - Don't know/Not sure	
5k-1. Please tell me if you have or have not noticed a significant number of applicants with a "Lack of basic math skills."		6a. Determination	—
Have seen this characteristic in job applicants	01	6b. Personal discipline	—
Have not seen this characteristic in job applicants	02	6c. Creativity	—
(Do not read) Refuse	97	6d. Respectfulness	—
(Do not read) Don't know/Not sure	98	6e. Honesty	—
		6f. Curiosity	—
5k-2. On the 1 to 5 scale, how important is this applicant shortcoming to your business?		6g. Verbal communication skills	—
(Do not read) 98 - Don't know/Not sure		6h. Writing skills	—
Lack of basic math skills	—	6i. Technical skills	—
		6j. Taking the initiative	—
5l-1. Please tell me if you have or have not noticed a significant number of applicants with a "Lack of technical skills specific to the job."		6k. Responsibility	—
Have seen this characteristic in job applicants	01	6l. Positivity	—
Have not seen this characteristic in job applicants	02	6m. Ambition	—
(Do not read) Refuse	97	6n. Dependability	—
(Do not read) Don't know/Not sure	98		

7a. Are you experiencing a shortage of skilled applicants for your organization?		(Do not read) Not applicable – Do not need new or increased skills	95
Yes	01	(Do not read) Refuse	97
No (if “no” skip to question 8)	02	(Do not read) Don't know/Not sure	98
(Do not read) Refuse	97		
(Do not read) Don't know/Not sure	98		
7b. (If experiencing shortage of skilled applicants per Q.7a) Please tell me the skill level required to meet your skill shortages. Approximately what percentage of the SHORTAGES you are experiencing require high-skill applicants (those with a 4-year degree or higher); middle-skill applicants (training or education beyond high school, but less than a 4-year degree); and low-skill applicants (high school or less). What percent of positions require ...		9. Now we have some questions about your company's workforce by job function.	
Answers MUST total 100%		9a. Do you employ staff in the Accounting or Finance function?	
Refuse = 97		Yes	01
Don't know/Not sure = 98		No (if “no” skip to question 9b)	02
High-skill, requiring a 4-year degree or higher	—	(Do not read) Refuse	97
Middle-skill, training or education beyond high school, but less than a 4-year degree	—	(Do not read) Don't know/Not sure	98
Low-skill, requiring high school or less	—	9aa. (If employ staff in Accounting or Finance function per Q.9a)	
		Are you seeing a shortage of skilled applicants in the Accounting or Finance function?	
		Yes	01
		No (if “no” skip to question 9b)	02
		(Do not read) Refuse	97
		(Do not read) Don't know/Not sure	98
7c. (If experiencing shortage of skilled applicants per Q.7a) Please tell me if you are taking any of the following measures to meet the skill shortages of applicants.		9aaa. (If seeing shortage of skilled applicants in the Accounting or Finance function per Q.9aa)	
Hiring from outside the St. Louis area	01	Please tell me the skill level of applicants required to meet your Accounting or Finance skill shortages. Approximately what percentage of the shortages you are experiencing require high-skill applicants (those with a 4-year degree or higher); middle-skill applicants (training or education beyond high school, but less than a 4-year degree); and low-skill applicants (high school or less).	
Hiring from outside the United States	02	What percent of positions require ...	
Hiring contractors	03	Answers MUST total 100%	
Forced to hire less experienced workers and then train them	04	Refuse = 97	
Invest in automation instead of hiring	05	Don't know/Not sure = 98	
Offering increased wages due to shortage of experienced workers	06	High-skill, requiring a 4-year degree or higher	—
(Do not read) Not taking any of listed measures	96	Middle-skill, training or education beyond high school, but less than a 4-year degree	—
(Do not read) Refuse	97	Low-skill, requiring high school or less	—
(Do not read) Don't know/Not sure	98	9b. Do you employ staff in the Information Technology function?	
8. Which of the following methods do you use to assist current workers to address your company's need for new or increased skills?		Yes	01
(Read list; enter all that apply.)		No (if “no” skip to question 9c)	02
In-house classroom training	01	(Do not read) Refuse	97
On-the-job training	02	(Do not read) Don't know/Not sure	98
Vendor training	03	9bb. (If employ staff in Information Technology function per Q.9b)	
Apprenticeship programs	04	Are you seeing a shortage of skilled applicants in the Information Technology function?	
Internship programs	05	Yes	01
Community college provided customized training or education	06	No (if “no” skip to question 9c)	02
Vocational training	07	(Do not read) Refuse	97
Tuition reimbursement	08	(Do not read) Don't know/Not sure	98
Online courses	09		
Provide flexible schedule for outside continuing education	10		

9bbb. (If seeing shortage of skilled applicants in the Information Technology function per Q.9bb)
Please tell me the skill level of applicants required to meet your Information Technology skill shortages. Approximately what percentage of the shortages you are experiencing require high-skill applicants (those with a 4-year degree or higher); middle-skill applicants (training or education beyond high school, but less than a 4-year degree); and low-skill applicants (high school or less).

What percent of positions require ...

Answers MUST total 100%

Refuse = 97

Don't know/Not sure = 98

- High-skill, requiring a 4-year degree or higher —
- Middle-skill, training or education beyond high school, but less than a 4-year degree —
- Low-skill, requiring high school or less —

9c. Do you employ staff in the Customer Service function?

- Yes 01
- No (if "no" skip to question 9d) 02
- (Do not read) Refuse 97
- (Do not read) Don't know/Not sure 98

9cc. (If employ staff in Customer Service function per Q.9c)

Are you seeing a shortage of skilled applicants in the Customer Service function?

- Yes 01
- No (if "no" skip to question 9d) 02
- (Do not read) Refuse 97
- (Do not read) Don't know/Not sure 98

9ccc. (If seeing shortage of skilled applicants in the Customer Service function per Q.9cc)

Please tell me the skill level of applicants required to meet your Customer Service skill shortages. Approximately what percentage of the shortages you are experiencing require high-skill applicants (those with a 4-year degree or higher); middle-skill applicants (training or education beyond high school, but less than a 4-year degree); and low-skill applicants (high school or less).

What percent of positions require ...

Answers MUST total 100%

Refuse = 97

Don't know/Not sure = 98

- High-skill, requiring a 4-year degree or higher —
- Middle-skill, training or education beyond high school, but less than a 4-year degree —
- Low-skill, requiring high school or less —

9d. Do you employ staff in the Business Management function?

- Yes 01
- No (if "no" skip to question 9e) 02
- (Do not read) Refuse 97
- (Do not read) Don't know/Not sure 98

9dd. (If employ staff in Business Management function per Q.9d)

Are you seeing a shortage of skilled applicants in the Business Management function?

- Yes 01
- No (if "no" skip to question 9e) 02
- (Do not read) Refuse 97
- (Do not read) Don't know/Not sure 98

9ddd. (If seeing shortage of skilled applicants in the Business Management function per Q.9dd)

Please tell me the skill level of applicants required to meet your Business Management skill shortages. Approximately what percentage of the shortages you are experiencing require high-skill applicants (those with a 4-year degree or higher); middle-skill applicants (training or education beyond high school, but less than a 4-year degree); and low-skill applicants (high school or less).

What percent of positions require ...

Answers MUST total 100%

Refuse = 97

Don't know/Not sure = 98

- High-skill, requiring a 4-year degree or higher —
- Middle-skill, training or education beyond high school, but less than a 4-year degree —
- Low-skill, requiring high school or less —

9e. Do you employ staff in the Skilled Trades function?

- Yes 01
- No (if "no" skip to question 9f) 02
- (Do not read) Refuse 97
- (Do not read) Don't know/Not sure 98

9ee. (If employ staff in Skilled Trades function per Q.9e)

Are you seeing a shortage of skilled applicants in the Skilled Trades function?

- Yes 01
- No (if "no" skip to question 9f) 02
- (Do not read) Refuse 97
- (Do not read) Don't know/Not sure 98

9eee. (If seeing shortage of skilled applicants in the Skilled Trades function per Q.9ee)

Please tell me the skill level of applicants required to meet your Skilled Trades skill shortages. Approximately what percentage of the shortages you are experiencing require high-skill applicants (those with a 4-year degree or higher); middle-skill applicants (training or education beyond high school, but less than a 4-year degree); and low-skill applicants (high school or less).

What percent of positions require ...

Answers MUST total 100%

Refuse = 97

Don't know/Not sure = 98

High-skill, requiring a 4-year degree or higher	—	9ggg. (If seeing shortage of skilled applicants in the Patient Care function per Q.9gg)	
Middle-skill, training or education beyond high school, but less than a 4-year degree	—	Please tell me the skill level of applicants required to meet your Patient Care skill shortages. Approximately what percentage of the shortages you are experiencing require high-skill applicants (those with a 4-year degree or higher); middle-skill applicants (training or education beyond high school, but less than a 4-year degree); and low-skill applicants (high school or less).	
Low-skill, requiring high school or less	—	What percent of positions require ...	
9f. Do you employ staff in the Manufacturing, Production & Maintenance function?		Answers MUST total 100%	
Yes	01	Refuse = 97	
No (if "no" skip to question 9g)	02	Don't know/Not sure = 98	
(Do not read) Refuse	97	High-skill, requiring a 4-year degree or higher	—
(Do not read) Don't know/Not sure	98	Middle-skill, training or education beyond high school, but less than a 4-year degree	—
9ff. (If employ staff in Manufacturing, Production & Maintenance function per Q.9f)		Low-skill, requiring high school or less	—
Are you seeing a shortage of skilled applicants in the Manufacturing, Production & Maintenance function?		10. In your business, what percentage of your TOTAL positions requires each of the following levels of experience? What percent of positions require ...	
Yes	01	Answers MUST total 100%	
No (if "no" skip to question 9g)	02	Refuse = 97	
(Do not read) Refuse	97	Don't know/Not sure = 98	
(Do not read) Don't know/Not sure	98	A minimum of 4 or more years of experience	—
9fff. (If seeing shortage of skilled applicants in the Manufacturing, Production & Maintenance function per Q.8ff)		A minimum of 1 to 3 years of experience	—
Please tell me the skill level of applicants required to meet your Manufacturing, Production & Maintenance skill shortages. Approximately what percentage of the shortages you are experiencing require high-skill applicants (those with a 4-year degree or higher); middle-skill applicants (training or education beyond high school, but less than a 4-year degree); and low-skill applicants (high school or less).		Some experience, but less than 1 year	—
What percent of positions require ...		No experience	—
Answers MUST total 100%		11. In your business, what percentage of your TOTAL positions require each of the following levels of education as a minimum requirement? What percent of positions require...	
Refuse = 97		Answers MUST total 100%	
Don't know/Not sure = 98		Refuse = 97	
High-skill, requiring a 4-year degree or higher	—	Don't know/Not sure = 98	
Middle-skill, training or education beyond high school, but less than a 4-year degree	—	High-skill, requiring a 4-year degree or higher	—
Low-skill, requiring high school or less	—	Middle-skill, training or education beyond high school, but less than a 4-year degree	—
		Low-skill, requiring high school or less	—
9g. Do you employ staff in the Patient Care function?		12. What percentage of jobs in your business are available for individuals with industry relevant short-term training, meaning not more than 6 months past high school?	
Yes	01	No jobs	01
No (if "no" skip to question 10)	02	1 to 49% of jobs	02
(Do not read) Refuse	97	50 to 100% of jobs	03
(Do not read) Don't know/Not sure	98	(Do not read) Refuse	97
9gg. (If employ staff in Patient Care function per Q.8g)		(Do not read) Don't know/Not sure	98
Are you seeing a shortage of skilled applicants in the Patient Care function?		13. Do you offer any of the following work-based learning experiences for students and young adults?	
Yes	01	(Do not read) Refuse	97
No (if "no" skip to question 10)	02	(Do not read) Don't know/Not sure	98
(Do not read) Refuse	97	13a. Paid internships	
(Do not read) Don't know/Not sure	98	Yes	01
		No	02

13b. Unpaid internships		Drug screen, percentage	—
Yes	01	eVerify check, percentage	—
No	02	Social media check, percentage	—
13c. Career shadowing		Professional license or certification check, percentage	—
Yes	01	Check by an outside service, percentage	—
No	02		
13d. Field trips		16. What aspects of DEI – Diversity, Equity, and Inclusion – does your business incorporate?	
Yes	01	(Do not read) Refuse	97
No	02	(Do not read) Don't know/Not sure	98
13e. Classroom presentations		16a. A DEI strategy or plan	
Yes	01	Yes	01
No	02	No	02
13f. Youth apprenticeships		16b. An Equal Opportunity Employer notice in job postings	
Yes	01	Yes	01
No	02	No	02
13g. (If 13a through 13f are all “No”) Would you be interested in offering work-based learning experiences for students and young adults?		16c. A DEI statement on your website or in a handbook	
Yes	01	Yes	01
No	02	No	02
14. Do you currently have partnerships with any of the following organizations to help you source talent?		16d. A DEI committee	
(Do not read) Refuse	97	Yes	01
(Do not read) Don't know/Not sure	98	No	02
14a. Job Centers or Workforce Investment Boards		16e. Harassment or sensitivity course or training	
Yes	01	Yes	01
No	02	No	02
14b. School districts or individual K-12 schools		17. Which statement best describes your company's position on hiring an applicant convicted of a felony offense who has completed their sentence and/or probation?	
Yes	01	(Read list; single response only)	
No	02	Would not consider applicant for any position	01
14c. 2-year colleges		Depends on the nature of the felony and the time since the offense	02
Yes	01	Would consider for some jobs but not for others	03
No	02	Would consider the applicant for any job for which they are qualified	04
14d. 4-year colleges		(Do not read) Refuse	97
Yes	01	(Do not read) Don't know/Not sure	98
No	02		
14e. Training institutions		18a. Do you currently have employees working remotely?	
Yes	01	Yes	01
No	02	No (if “no” skip to question 19)	02
14f. Nonprofit organizations		(Do not read) Refuse	97
Yes	01	(Do not read) Don't know/Not sure	98
No	02		
14g. Missouri Department of Higher Education and Workforce Development		18b. Do you expect the number of your remote workers to increase, stay the same, or decrease over the next 12 months?	
Yes	01	Increase	01
No	02	Stay the same	02
14h. Other (please record)		Decrease	03
Yes	01	(Do not read) Refuse	97
No	02	(Do not read) Don't know/Not sure	98
15. What percentage of jobs in your firm receives each of the following types of background checks prior to hire?			
Criminal check, percentage	—		
Financial check, percentage	—		

19. Finally, we want to understand the characteristics that best define a “good” job. Please rank the importance of each of the following job characteristics on a 1 to 5 scale where 1 is “not at all important” and 5 is “very important.”

(Do not read) Refuse 97
 (Do not read) Don’t know/Not sure 98
 Health insurance —
 Pay rate —
 Sense of purpose —

Accessibility —
 Retirement plan —
 Job stability —
 Paid time off (vacation or sick leave) —
 Flexibility —
 Paid family leave —
 Inclusiveness, a sense of belonging —
 Job satisfaction —
 Opportunities for advancement or a career path —

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