



WORKFORCE DEVELOPMENT GUIDE

MANUFACTURING

Valley's job creation engine revs up

Phoenix is ranked No. 1 in the U.S. for manufacturing sector growth, which poses new challenges.

AUDREY JENSEN, 14

JOB PIPELINE

Former TSMC exec at center of the action

Scott Holman is trying to put industry and education institutions on the same page to fill jobs.

AMY EDELEN, 24

COMPENSATION

Construction worker pay gets a bump

Phoenix and Tucson rank in the top 15 cities nationwide for construction job pay increases.

BREVAN BRANSCUM, 35

JIM POULIN | PHOENIX BUSINESS JOURNAL

SPONSORS





ECONOMIC DEVELOPMENT

FLEXING ITS MANUFACTURING MUSCLE

Despite facing big challenges, Arizona makes strides to grow workforce

BY AUDREY JENSEN
ajensen@bizjournals.com

Headlines detailing mass layoffs and big projects pausing can be deceiving. LG Energy Solution said it was temporarily halting plans for its second battery plant in metro Phoenix this year, and about a year ago, electric vehicle maker Lucid

Group Inc. announced layoffs for about 1,000 workers.

But a close examination of Arizona's recent history shows that it has made important strides in bolstering its manufacturing workforce – in fact, the state was ranked No. 1 this year for manufacturing growth in the U.S. for at least 14 major projects that have been announced since 2020.

As for the manufacturing labor force, the Grand Canyon State has seen a softening with a decrease of 3,000 seasonally adjusted jobs in the past year and a half, but that doesn't amount to a huge impact considering the nearly 50,000 jobs added in the past decade, according to data from the Arizona

Office of Economic Opportunity.

"It makes it look like we're in a weak position but in reality that's just broader business cycle issues," said Jim Rounds, president of Tempe-based Rounds Consulting Group Inc.

Arizona reached 195,500 manufacturing jobs in 2022 – up from a drop-off to 150,000 during the Great Recession and nearing a modern high of 212,000 jobs reached in 1998.

"You expect to see manufacturing slide a little bit in recessions, and historically you do see that, but it doesn't pick up the fact that in relative terms we've been adding a lot of higher wage jobs and a lot of that has been in semiconductors," Rounds said.



Jim Rounds, Rounds Consulting Group Inc.

Over the past decade, state leaders updated policies and expanded incentives to attract diverse companies and higher-paying jobs to combat future recessions – and it's working. The state quickly recovered all jobs lost from the Covid-19 pandemic before other states and is still showing resiliency as the rest of the labor market cools off thanks to gains in some of Arizona's strongest industries such as hospitality, construction, health care and government.

If the U.S. were to fall into a recession, as some pundits still suggest is possible, Arizona may only see a "modest" employment decline this time around, leading to fewer job openings as the state prepares to welcome thousands of new manufacturing jobs from multibillion-dollar investments made by Taiwan Semiconductor Manufacturing Co., Intel Corp., LG Energy Solution, Amkor Technology Inc. and more. Outside influences could impact the timeline for those projects, but overall they're expected to strengthen the state's economy.

A WORD FROM OUR SPONSOR



SANDRA WATSON
President and CEO
Arizona Commerce Authority



By any measure, Arizona is experiencing a jobs explosion. According to Lightcast, Arizona is ranked top-3 for job growth between 2018 and 2022 and top-5 for growth in skilled jobs, those requiring more advanced degrees.

High-tech, high-wage industries such as semiconductors, aerospace, bioscience and health care, batteries, renewable energy and more are flourishing. This momentum coincides with rising personal income levels and decreasing unemployment.

As the state's leading economic development agency, the Arizona Commerce Authority (ACA) is laser focused on advancing Arizona's economy and growing high-quality jobs in the state. As part of that mission, we dedicate considerable efforts to enhancing Arizona's already top-ranked workforce.

Workforce is a priority that every company, no matter how big or small, shares. Arizona has been leading pioneering workforce development solutions for years. Our approach involves bringing all stakeholders together in a comprehensive effort including leaders in academia, industry, government, nonprofits, and more. As a result, Arizona boasts the most robust talent pipeline in the country, and businesses have taken note.

Workforce development isn't just about economic development, though – it's also about opportunity. It's about

providing the chance for someone to enhance their skills, climb the economic ladder, and find more fulfillment in their vocation. It's about helping Arizonans realize their innate potential in ways they didn't know were possible.

Programs like Arizona's Future48 Workforce Accelerators or our apprenticeship models bring these opportunities to people across our state, in both rural and urban communities. We're partnering with community colleges, universities, and expanding companies to pair in-demand skills with Arizonans ready to learn them. The good-paying jobs these skills lead to include semiconductor technicians, automotive assembly workers, cybersecurity professionals, and much more, with plenty of room for advancement.

As Governor Hobbs said during her inaugural State of the State, "the easiest way to change someone's life is to offer them the opportunity for a new or better job." We believe firmly in that mantra and are working hard to bring that opportunity to every Arizonan who wants it.

We're also grateful to partners like the Phoenix Business Journal and are proud to sponsor this special edition on workforce development. We look forward to building on Arizona's momentum to make the most of the opportunity before us and thank the many partners we are privileged to work with across the state.



JIM POULIN | PHOENIX BUSINESS JOURNAL

Arizona is seeing a boost in its advanced manufacturing sector that has created a need for workers in semiconductors, renewable energy and other sectors, supplementing the state's strong base in aerospace and defense industries.

Manufacturing now 6% of workforce

Manufacturing made up about 6% of Arizona and the Valley's workforce as of July 2024, almost as much as the construction industry's share of the workforce in the state. Those jobs are important because they create more employment and often have higher wages, leading to other spending in the economy.

Although not as high as the average weekly wages for industries such as information technology, the average weekly wage for manufacturing jobs in Arizona has been increasing, reaching \$1,670 in the third quarter of 2023, a 4.7% increase from the same quarter in 2020.

The Phoenix market ranked 11th for hottest labor markets in the U.S. based on pay growth, wages and hiring rates over the past year, according to an ADP survey of its members. It also ranked within the top 20 hottest labor markets for manufacturing based on a strong hiring rate, but its pay growth and new hire wages were lower ranked compared to other markets.

The market's manufacturing boom is good news for the state's coffers, but Arizona will need to continue focusing on how to fill those future jobs as it establishes itself as a key semiconductor hub.

Across the state, workforce, education and economic leaders are focused on training and building the future workforce in emerging industries and manufacturing, but Rounds suggest a lot of those efforts have been siloed.

"It's not a bad thing to have a lot of different groups working on different workforce development, but I feel like we're not maximizing the benefits – we might be duplicating efforts," Rounds said.

Arizona could also see a more robust workforce from a collective focus on securing and training workers on every level, including making sure more students obtain a high-school diploma, technical degree or university degree.

"We have to give opportunities to everybody if we're going to maintain what we're doing," Rounds said. **Z**

A WORD FROM OUR SPONSOR



The Silicon Desert has long been a hub for innovation and entrepreneurial spirit. As the region's economy continues to grow— attracting new business models, advanced technologies, and industry giants—Maricopa Community Colleges will play a central role in educating Arizona's workforce. For over a century, our system has transformed the student learning experience, establishing 10 colleges and 31 satellite locations as cornerstones of accessible and affordable higher education across the Valley. Each year, we welcome over 140,000 students who gain the knowledge and skills needed to thrive in today's economy.

By 2030, the Grand Canyon State is expected to add over 720,000 new jobs across 10 supersectors, including education and health services, construction, hospitality, manufacturing, and technology. With the state's population expected to remain among the nation's fastest-growing, the demand for skilled workers will only increase. Building Arizona's future starts today—and it starts with us. By leveraging industry expertise, we design programs that address workforce needs while preparing our students for high-wage, high-growth, high-demand careers. Home to Arizona's first career and technical college, workforce development has long been ingrained in our DNA. That's why global enterprises and local businesses alike trust us to cultivate the talent pipeline needed to support workforce demand and fuel economic prosperity.

The economic impact of Maricopa Community Colleges is undeniable. During the 2021-22 fiscal year alone, we added nearly \$8 billion to Maricopa County's economy. To put that in perspective, our collective impact exceeds that of the entire utilities industry in the county. One out of every 28 jobs in Greater Phoenix is supported by the activities of our colleges and their students. As one of the largest integrated health care education systems, we produce one-third of Arizona's nurses—helping combat the dire workforce shortage and providing communities with the quality care they deserve. Furthermore, our colleges educate the second-largest number of college graduates in the state, nurturing teaching professionals, empowering skilled tradespeople, inspiring creative thinkers, and igniting the passion of tomorrow's leaders.

Community colleges have long been a beacon of opportunity, and our colleges are no different. Whether we are training the next generation of semiconductor technicians, expanding our baccalaureate degree programs, or collaborating with industry leaders and educators to make artificial intelligence and machine learning accessible to all, we remain committed to fueling Arizona's future—one student at a time.



STEVEN R. GONZALES, ED.D.

Chancellor
Maricopa County Community
College District



COVER STORY

TASKED FORCE

Taiwan Semiconductor uses hands-on apprenticeship training to help fill critical need for skilled workers

As a facilities technician apprentice for Taiwan Semiconductor Manufacturing Co., Alejandro Munoz is gaining exposure to the silicon chip industry and the various trades that support the company's high-tech factories under construction in north Phoenix.

Prior to joining TSMC's apprenticeship program, Munoz had been unsure of his career trajectory. He spent a year working at Intel, gaining initial exposure to the semiconductor industry and was later hired for a contracting job with a third-party company to work at TSMC's site.

"Ever since I got into the semiconductor industry, it has been something that I've liked and I want to stay in it," he said. "There's not a lot of companies where you get to work inside a clean room and – with all the advanced technology – just learning about it interests me."

Munoz is among an inaugural cohort of eight participants in TSMC's facility technician apprenticeship program, which launched in April and is expected to run 18 to 24 months. TSMC invested \$5 million in the program, which will train 80 apprentices over five years.

TSMC declined to provide specific pay rates for its apprentices, but the company said its employee salaries are above the average annual wage



BY AMY EDELEN
aedelen@
bizjournals.com

Workers inside the chiller room at TSMC's first chip factory being built out in north Phoenix.

for Arizona's manufacturing sector, which is \$88,868 per year, according to data from the Arizona Commerce Authority. In addition, apprentices receive company benefits and an option to complete an associate's degree with tuition paid by TSMC, according to the company.

In April, TSMC increased its investment in its Arizona chip factories, or fabs, from \$40 billion to \$65 billion as it plans to build a third facility by the end of the decade that will produce 2 nanometer chips to power smartphones, data centers and artificial intelligence applications.

Semiconductor companies with expansion plans on tap such as TSMC, Intel and Amkor, along with community colleges, universities, high schools and other industry-affiliated entities, are in a rush to train and hire workers amid an expected need for some 25,000 advanced manufacturing jobs earmarked for Arizona over the next decade and beyond.

TSMC is expected to start high-volume production at its first fab – now under construction in north Phoenix – in the first half of 2025, followed by operations to begin in its second fab in 2028. The company's Arizona fabs are expected to employ more than 6,000 workers, up from the 4,500 it initially anticipated. The company has

CONTINUED ON PAGE 18







JIM POULIN | PHOENIX BUSINESS JOURNAL

Mentor Bradley Daniels, left, instructs apprentice Leon Ntwarabakiga to become a facility technician at the Taiwan Semiconductor Manufacturing Co. factory being built out in north Phoenix.

tricks that occur in the field that may not get taught in the classroom.”

TSMC’s inaugural cohort is slated to graduate from the first phase of the program by the end of 2025. Interest in the apprenticeship program is robust and the company expects a greater number of participants for its second cohort, Johnson said.

Apprenticeship skills transferable

Leon Ntwarabakiga is part of TSMC’s first cohort of apprentices and is undergoing training in electrical and instrumentation and controls.

“It’s amazing, the things that I’m seeing already with electrical, and I can’t wait to see the rest of the departments,” Ntwarabakiga said.

Ntwarabakiga, like Munoz, was working as a contractor for a third-party company on TSMC’s site when he learned of the apprenticeship program and applied because of the company’s expertise in the semiconductor industry.

“Being able to work for a company like that with the innovations they have was a great opportunity for me,” he said.

Ntwarabakiga added that skills and information learned in the apprenticeship program span beyond the semiconductor industry.

“For anyone who’s looking for a career change, or someone who’s trying to build a career, I think this is a good program for them, he said. “This program gives you an opportunity to test everything and see what you like, and you get tons of support from mentors and experienced engineers and technicians.”

CONTINUED FROM PAGE 16

hired more than 2,200 workers, the Business Journal previously reported.

TSMC’s apprenticeship program is a supplement to other recruitment methods for the company, said Greg Jackson, director of facilities for TSMC Arizona.

“When you step back, there’s a couple ways to get people. You can either get experienced people, which we’ve been working on and doing, but eventually that pool gets pret-

ty thin, and you’ve got to find other means to get people in,” he said. “And that’s really where the apprenticeship comes into play.”

TSMC apprentices gain expertise in four areas

TSMC’s facilities technician apprentices participate in a phased program in which they gain hands-on training in four departments: water, mechanical, electrical and gas, and chemical.

They spend 18 weeks in each department, combined with in-class-

room training via Maricopa Community Colleges. Then, they pick a specialization and receive 2,000 hours of on-the-job training in that particular field, Jackson said.

“They get to spend time with journeymen, electricians and water technicians with 30 years of experience,” Jackson said. “They get out in the field, get their hands dirty and learn real-time stuff and take not just what they’ve learned in the classroom – which is an important part of it – but they learn some of the little tips and

QUICK START SEMICONDUCTOR TECHNICIAN PROGRAM GEARS UP AT VALLEY COLLEGES

Quick Start is gearing up for its next round of classes in the fall with hundreds of students registered for the 10-day semiconductor technician training program created by Maricopa Community Colleges and industry partners.

The program is expected to train more than 135 students at Chandler-Gilbert Community College, Mesa Community College and Estrella Mountain Community College. The training was set to begin in September, said Lindsey Wilson,

a spokeswoman for Maricopa Community Colleges.

Several cohorts of high school students participated in the Quick Start program while classes weren’t scheduled as heavily during the summer at the three colleges, according to MCC.

The Quick Start program has held 83 classes since its inception in 2022. More than 900 students have participated in the program and 864 obtained semiconductor technician certifications, according to Leah Palmer, executive director of

AzAMI Workforce/Manufacturing Technologies at Maricopa Community Colleges.

Despite the program’s initial success, it had to temporarily reduce the number of classes it offered in response to a decline in job openings, the Business Journal previously reported in May.

When asked whether Maricopa Community Colleges will consider adding more classes as semiconductor companies ramp up hiring efforts, Wilson said the district “continues to work with semiconductor industry partners”

to forecast job growth and will adjust classes accordingly.

“Additionally, as the largest workforce education provider in the nation, we regularly monitor all industries and our course offerings, adding new skills-based education across our 600 degree, certificate, and fast-track programs,” she said.

Demand remains high for the Quick Start program. Nearly 5,000 students have passed pre-assessment tests and 1,500 are on the waitlist for the program.

Some 40% of students who

graduated from Quick Start’s program held in the spring have found employment and 19% are currently interviewing with employers, while 10% are pursuing other opportunities or additional education, according to MCC.

“It’s important to note that many students use the Quick Start program as the first step in their educational journey to explore additional career pathways in the semiconductor and related industries,” Wilson said.



PINAL COUNTY

820 E. Cottonwood Lane, Bldg. E,
Casa Grande, AZ 85122

520-509-3555

www.pinal.gov/562/
Workforce-Development

www.facebook.com/
ArizonaAtWorkPinal

www.linkedin.com/company/arizona-
at-work-pinal-county/about

TOP EXECUTIVE

JAMES SMITH
Economic and Workforce Development Director

BOARD MEMBERS

- **HAROLD CHRIST** | Chair, The Windmill Winery
- **JACK BEVERIDGE** | Vice Chair, Empowerment Systems
- **JACKOB ANDERSEN** | Saint Holdings, LLC
- **LOGEN KELLY** | Cardinal Glass Industries
- **SEAN SALVESON** | K2 Electric
- **BRYAN SEPPALA** | Resolution Copper
- **CHRISTINA ROTHLSBERGER** | Sun Life Family Health Center, Inc
- **JIM GARRETT** | Garrett Motors
- **DAVID NIEVES** | Procter & Gamble
- **STACEY RICH** | Abbott Nutrition
- **MICHAEL CRUZ** | Lucid Motors
- **ERICA BALLESTEROS** | The Change Project
- **SAMUEL KOLAPO** | Fred G. Acosta Job Corps Ctr.
- **LYNN PARSONS** | Achieve Pinal
- **SOLOMON GALYON** | AZ State Building and Construction Trades Council
- **JOSHUA PAINE** | AZ Operating Engineers Apprenticeship Program
- **JOEL VILLEGAS** | Pinal County School Superintendent's Office
- **SUSAN AGUILAR** | Central Arizona College
- **ANDREW CLEGG** | Central Arizona College
- **TIM TUCKER** | AZ Dept of Economic Security
- **RICHARD WILKIE** | City of Casa Grande
- **MARY FLECK** | AZ Dept of Economic Security

ABOUT US

Pinal County's workforce development system seamlessly integrates both public and private stakeholders into a service delivery system that focuses on both job seekers and employers. Services are primarily delivered through a blend of ARIZONA@WORK Pinal County services which are funded by the Workforce Innovation and Opportunity Act (WIOA), and County funded workforce training incentives leveraged to attract and retain a qualified workforce driven by employer needs.



Our Mission

The Pinal County Economic and Workforce Development system blends strategies to grow the economy of the County by working with our community stakeholders and partners to locate and grow companies and attract capital investment and employment opportunities. Through these efforts, we help meet the needs of our employers by ensuring the workforce is prepared with the skills for the jobs of today and the future.

Types of Services for Employers

ARIZONA@WORK Pinal County is part of the statewide ARIZONA@WORK network. The system assists in developing the County's workforce and matches employers with job seekers. ARIZONA@WORK Pinal County partners with employers of all sizes and types to recruit, develop and retain a workforce that supports business success, while providing job seekers career development services, including connecting them to employment opportunities.

Types of Services for Individuals

ARIZONA@WORK is the statewide workforce development network that helps job seekers throughout the state by providing employment and training services and career readiness resources to pursue employment opportunities.

Areas of Specific Expertise

- Workforce Data Analysis
- Career Guidance and Planning
- Customized Employer Services
- Community Collaboration

- Advanced Manufacturing Focused Training
- Transportation/Logistics Focused Training

Service Format

Customers are at the forefront of all ARIZONA@WORK Pinal County services. Self-service options are available to both jobseekers and employers. Jobseekers can search online for employment opportunities, upload their resume as well as search for training providers via Arizona Job Connection (www.azjobconnection.gov). Employers can enter job orders and search for qualified candidates via the same portal.

The ARIZONA@WORK Pinal County Business and Career Center in Casa Grande is a welcoming hub where individuals can connect with a workforce professional to discuss employment and career options. Additional access points are being developed to allow easier connection to services throughout the County. Employers can be connected to a Business Service Consultant who is well versed in the service offerings and are ready to customize a hiring plan.

Approximate Cost

ARIZONA@WORK Pinal County provides workforce development services at no cost to job seekers or employers.

Turnaround Time

Depending on an individual's circumstances, a connection to a training program can be relatively quick. Job seekers can complete certificate bearing training programs in weeks or months depending on their goals. Eligible ARIZONA@WORK Pinal County participants can be provided with financial assistance and support services to allow them to focus on their training program's courses. Once training is completed, referrals to available employment opportunities can be made.

Before Reaching Out

- Individuals can access services by visiting, www.pinal.gov/workforce-development
- Employers can connect with a Business Service Consultant by visiting, www.pinal.gov/1278/Business-Services
- Business focused state incentives and Pinal County Business Assistance, www.pinal.gov/921/Incentives-Programs

FOR MORE INFORMATION

Joel Millman, ARIZONA@WORK - Pinal County, Director • Joel.millman@pinal.gov • (520) 866-6816



MARICOPA
COMMUNITY COLLEGES



FUELING ARIZONA'S FUTURE

**Maricopa Community Colleges
is Arizona's largest workforce
developer.**

Creating **1 out of every 28**
jobs in the Valley

Educating **one-third** of
Arizona's nurses

Producing the **second-largest**
number of college graduates
in Arizona

Adding **\$7.9 billion** to
our economy

Discover how we're making college **better** at maricopa.edu.

Expanding Access to Opportunities

Maricopa Community Colleges is the Valley's most accessible college provider—ensuring access to affordable, high-quality postsecondary education.

Serving as a critical pipeline for the state's economic growth, its 10 colleges and 31 satellite locations support the needs of a skilled workforce through first-of-its-kind career programming designed to meet the needs of Arizona's labor market.

Producing the second-largest number of college graduates in Arizona

With a commitment to affordable education, Maricopa Community Colleges produces the second-largest number of college graduates in Arizona—powerfully supporting the state's 2030 college attainment goals and the next generation of Valley workers and leaders.

More than 40,000 students at Maricopa Community Colleges are the first in their families to go to college, and over 87% of students are residents of Maricopa County.

In 2023, Maricopa Community Colleges launched its first crop of affordable bachelor's degree programs to an overwhelming response. Over 4,000 students currently are enrolled in the colleges' eight baccalaureate programs, designed to alleviate labor shortfalls in high-impact, high-wage, and high-demand sectors.

Educating one-third of Arizona's nurses

Maricopa Community Colleges has been instrumental in producing a highly skilled healthcare workforce—educating nearly one-third of Arizona's nurses, the highest number of any college system in the state.

After graduating nearly 2,000 nurses this past year, Maricopa Community Colleges now offers the Registered Nurse to Bachelor of Science in Nursing degree program in addition to a bachelor's degree program in nuclear medicine technology and computed tomography.



Creating 1 out of every 28 jobs

According to a recent economic impact study, one out of every 28 jobs in Maricopa County is supported by the activities of the colleges and their students.

As the state's largest workforce developer, Maricopa Community Colleges has expanded its offerings to include accessible career programming that is competitive with emerging industries and technologies, such as advanced manufacturing and artificial intelligence programs, Fast Track Training, and microcredentials, all providing modern, flexible, and stackable education pathways aligned with the needs and opportunities of local industry.

Adding \$7.9 billion to the economy

Maricopa Community Colleges is proud to be the nation's largest community college system and a key contributor to Arizona's economic development—last year, adding \$7.9 billion to the local economy.

Learn more at maricopa.edu.



EDUCATION



ASU

ASU's MacroTechnology Works facility at ASU Research Park in Tempe houses clean room and nanofabrication facilities where researchers and students collaborate. It will be home to the new Center for Advanced Wafer-Level Packaging Applications and Development.

HOW ASU PARTNERS WITH SEMICONDUCTOR COMPANIES

School is seeing an uptick in enrollment for engineering related fields

BY AMY EDELEN
aedelen@bizjournals.com

Roughly five years ago, semiconductor packaging courses attracted an average of 40 students each semester at Arizona State University's Ira A. Fulton Schools of Engineering.

That number has risen to more than 200 students per semester as ASU increases its workforce development efforts to meet growing demand for semiconductor-related jobs in Arizona.

"We've done a good job of sparking that interest and drawing them in and showing them what's involved," said Kyle Squires, dean of ASU's Fulton Schools of Engineering.

What's more, student enrollment has reached a record-breaking 33,000 students for the fall quarter at ASU's engineering school.

"People have heard of Intel and most people have heard of Taiwan Semiconductor Manufacturing Co. ... But I've got parents and students wondering 'What's NXP (Semiconductors)?,'" Squires said. "These firms we work with, they're doing almost space-age level technology. They're enabling Amazon, Facebook and Google. So as we've been able to break that down and explain it, it has really drawn students in and that's very gratifying. That will continue to grow."

ASU's academic advisers are inten-

tional about communicating with students about classes that companies have identified as crucial to learning industry skills, Squires added.

"They're not promising a job, but we're increasing the supply of potential employees by this intentional act of advising students across a range of disciplines," Squires said.

ASU offers stackable micro credential "pathways" to prepare undergraduate students for internships and careers in the semiconductor industry. Those 10-hour "short courses" could focus on learning a design tool or specific software, he said.

The university has garnered involvement from semiconductor companies when developing curriculum and preparing students for the industry, Squires said.

"The content is entirely shaped by those industry conversations. We



Kyle Squires,
dean of
ASU's Fulton
Schools of
Engineering.

need their feedback so that we know what we're doing," Squires said.

In July, the U.S. Department of Commerce announced a plan to invest \$30 million over five years in a new initiative to train the future semiconductor workforce.

The U.S. National Science Foundation and the CHIPS for America Research and Development Office – within the National Institute of Standards and Technology – intend to work with academia as well as workforce and labor organizations to adopt curriculum and best practices for training programs.

As a first step, both agencies issued a public request for information to seek input on activities to support the Network Coordination Hub and the National Network for Microelectronics Education.

ASU is interested in participating in the federal initiative to ensure future pathways for technicians to acquire skills, Squires said.

Last year, ASU was awarded a \$39.8 million federal grant to create a regional network for microelectronics education, research and development in the Southwest.

The Southwest Advanced Prototyping Hub – led by ASU – provides a collaborative forum for regional technology leaders, including Sandia National Laboratories, University of Colorado Boulder, University of New Mexico, and private sector firms to accelerate and enhance microelectronics research efforts, the Business Journal previously reported.

The SWAP hub is among eight regional innovation hubs established under the U.S. Department of Defense's Microelectronics Commons to accelerate development and production of microelectronics technologies that are critical for security and defense. It's also intended to democratize access to microelectronics manufacturing, research and development, Squires noted.

"These are about building Department of Defense systems for Lockheed or Boeing, or whatever the case might be. But the electronics companies also need to grow," he said. "We need to spur the startup ecosystem. We think we can also do that with workforce trained students ... That's our focus. That's what we're good at as a university, while having just a great opportunity to build our Microelectronics Commons Hub with our partners." ❧



SOUTH MOUNTAIN COMMUNITY COLLEGE CONSTRUCTION TRADES INSTITUTE

South Mountain Community College
7050 S. 24th Street, Phoenix, AZ 85042

(602) 243-8000

www.southmountaincc.edu

TOP EXECUTIVE

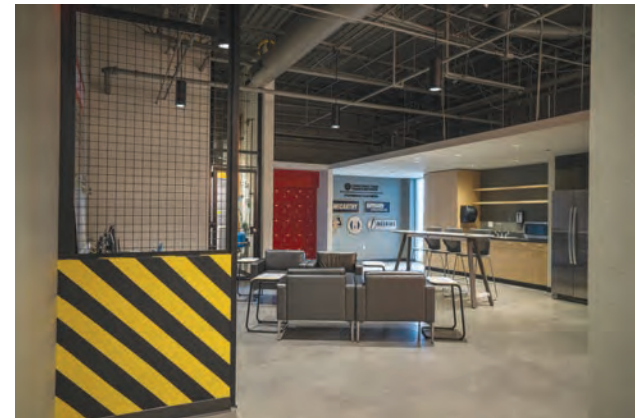
DR. TRAVIS MAY
Interim Dean of Academic Innovation
602-243-8191
travis.may@southmountaincc.edu

ABOUT US

South Mountain Community College reflects the diversity of the surrounding community, a mix of rural, urban, and suburban neighborhoods. Nearly 70 percent of SMCC's students are first-generation college students, and, with 80 percent of these students identifying as minority, SMCC has been federally-designated as both a Minority- and Hispanic-Serving Institution.

SOCIAL

- www.facebook.com/southmountaincc
- www.linkedin.com/school/southmountain-community-college/
- www.instagram.com/southmountaincc/
- www.youtube.com/user/southmountaincc
- twitter.com/smcccougar



Our Mission

The South Mountain Community College (SMCC) Construction Trades Institute's purpose is to provide vocational training in the carpentry, electrical and plumbing trades. In addition to receiving practical training, students will receive OSHA 30 and also earn college credits, positioning them for both immediate employment and future educational opportunities.

Types of Services for Employers

The CTI encourages employers to connect and engage with our students by in-person class meet and greets. This workforce community of connective service provides innovative possibilities from partnerships to teaching opportunities using the curriculum designed from the National Center of Construction Education and Research (NCCER) standards.

Types of Services for Individuals

The CTI has a dedicated academic advisor, and its own physical student center. The programs include the necessary lab tools required from hard hat, tool belt, hand tools and the required NCCER book for the class. The student has access to all SMCC student services and outreach programs.

Areas of Specific Expertise

SMCC CTI instructors are subject experts in the field/trade in which they teach. The students experience and gain academic knowledge with lectures, discussions, and hands-on experience. In addition,

the CTI is an accredited National Center for Construction Education and Research (NCCER) training and testing center.

How are services conducted

Individuals meet one day a week for eight hours in-person over 16 weeks which will include learning in construction safety, hand/power tools, construction calculations, construction drawings, OSHA 30 training and lab activities in the selected trades. In addition, there is class review and discussions regarding online work.

Program Cost

Under \$2000.00 per certification program. In-state tuition is \$97.00 per credit hour, plus a \$15.00 registration fee, and any fees associated with registration, classes and graduation. FAFSA funding may apply.

Program Training

- 16 weeks for the completion of one certification program: Fall or Spring Semester
- 32 weeks for the completion of two certification programs: Fall and Spring Semesters
- 40 weeks for the completion of three certification programs: Fall, Spring and Summer Semesters

FOR MORE INFORMATION

Chantel Freed, Construction Trades Institute Program Coordinator • 602-872-7635 • chantel.freed@southmountaincc.edu



DEVELOPMENT INITIATIVES



JIM POULIN | PHOENIX BUSINESS JOURNAL

MEET SCOTT HOLMAN, ARIZONA'S WORKFORCE CZAR

Former HR exec at TSMC guides public-private workforce partnership

BY AMY EDELEN
aedelen@bizjournals.com



As a former human resources executive for Taiwan Semiconductor Manufacturing Co. in Arizona, Scott Holman has vast knowledge about workforce development and recruitment.

Holman retired from TSMC and joined the Arizona Education Economic Commission (AEEC) Foundation as CEO in February. The commission is a public-private col-

laboration that includes more than a dozen companies in manufacturing, health care technology and defense. Holman's goal is to spur workforce development initiatives between educational institutions and the manufacturing industry, in addition to fundraising to support the commission's endeavors.

Earlier this year, the commission launched several industry workgroups to discuss Arizona workforce development and identify programs for the most in-demand jobs.

A big push for the commission is encouraging industry to engage with middle and high school students across Arizona to share information about potential jobs in advanced manufacturing. The commission plans to roll out virtual reality technology in classrooms that showcases what it's like to work in

the semiconductor industry, Holman said.

"We are working with a group of around 100 young people that will go into junior high schools to create awareness. They're going to have a very high level understanding of semiconductors and what happens in the environment to educate the kids and their parents in the virtual reality experience," Holman said. "Our target is toward the end of this year to have that experience for semiconductors complete."

How will the workgroups approach collaboration with school districts for industry-related curriculum?

There's such a huge need in the state of Arizona for manufacturing techs, whether it's TSMC, Microchip, NXP, Intel or Amkor.

It can't be a single source solu-

Scott Holman is the CEO of the Arizona Education Economic Commission Foundation, the fundraising arm of a public-private collaboration that includes more than a dozen companies in manufacturing, health care, technology and defense.

tion. It needs to be many solutions through multiple CTE or after school programs that teach the basics. We're starting to explore some of that, but it's going to take all those solutions to meet the needs of industry. I still think we'll be a little short, but at least there will be, hopefully, a pipeline created that will continue over time, given the industry growth that we're going to have.

Chandler Unified School District, Phoenix Union High School District, West-MEC and a couple of others are working with semiconductor companies and they're creating a curriculum to put into their school districts. As a commission person, but yet even more so as an industry person, I want all the curriculums – regardless of the school that they're being built through – to be very similar. ... Now, we just have to work with those high school districts that are trying to do their own (curriculum) and make sure it's being done collaboratively and we're on the cusp of that.

What's next for the AEEC? We have a set of deliverables for each one of the industry groups. It's identifying your top five in-demand jobs and the career pathways from junior high school into specific industries. It's hiring what we're calling career advisers to be in schools with kids and their parents, and talk about strategic industries. We're hoping to accomplish all those things this year.

Longer term, some of the industry groups aren't as mature as some of the other ones. There's a lot of work that needs to be done in that space, so helping them get there. And paying attention to the economy. Are there other strategic industries that we didn't have this year that will come into play next year and can we get ahead of that? I think we need to continue with a different lens that says, 'How do I reach the corners of the state of Arizona and provide the same message to those who aren't as privileged to be in Phoenix or Maricopa County?' Our outreach truly is the state of Arizona, and that everybody has an equal chance and opportunity to go down a career pathway and once they are done, have an interview with these companies. That's not going to happen in a year. That's going to happen over several years. ❧



MARICOPA CORPORATE COLLEGE

2411 W. 14th St. 4th Floor, Tempe, AZ 85281

(480) 377-2700

www.instagram.com/mcorcollege

www.facebook.com/MCORCollege

www.linkedin.com/company/maricopa-corporate-college

TOP EXECUTIVE

JASON WEINSTEIN,
Chief Officer of Corporate Engagement
jason.weinstein@maricopacorporate.com

ABOUT US

Maricopa Corporate College was established by the Maricopa Community Colleges to support Arizona's business community in their efforts to recruit, retain, and upskill their workforce. Designed to move at the speed of business, we are equipped to quickly meet your employee development workforce needs.

We partner with businesses, industry associations, and government entities like yours to deliver high-impact training solutions, collaborate on talent recruitment initiatives, streamline access to clock-hour and credit-bearing learning options provided by the 10 Maricopa Community Colleges, and facilitate connections with our 10 Colleges for additional workforce development partnership opportunities.

As part of our commitment to building a skilled talent pipeline for our region, we also serve individual learners who are seeking to start or advance their career. This includes online learning offered through MCOR as well as leveraging grant funding to support enrollment in academic programs at our 10 Colleges.

AREAS SERVED

Maricopa Corporate College serves the entire state of Arizona, but primarily operates in Maricopa County.



Our Mission

Maricopa Corporate College strengthens Arizona's business community by partnering with businesses, industry associations, and government entities to deliver high-impact workforce training solutions that drive employee development.

Types of Services for Employers

We are here to support your organization with all of your employee development needs including professional skills workshops, customized technical training, and online professional development courses and certifications. We also help connect employers and their employees to learning options at the 10 Maricopa Community Colleges.

Types of Services for Individuals

For individual learners, we offer a wide range of highly interactive online courses, from short skill-based classes to longer training programs designed to empower learners—whether earning a professional certification for the first time or advancing their career.

Areas of Specific Expertise

Our team of experts create customized training topics, including specialized, industry-specific training to meet our clients' business needs. Popular training options include: Leadership Development, English as a Second Language (ESL), Conversational Spanish, Microsoft Excel, Customer Service, Computer Skills, Change Management, and Effective Communication.

How are services conducted

Our training offerings are tailored to the individual culture and values of each employer and can be held at your location, at a location across any of the 10 Maricopa Community Colleges campuses, online, or through a blended format.

Approximate Cost

A standard 4-hour workshop starts at \$2,000. Pricing for specialized topics and longer training programs vary. Please contact the Maricopa Corporate College team for more information about pricing and scheduling.

Program Timing

Training options vary based on client need, but can range from a single 2-hour workshop to cohorts that span over several months. Depending on the program, training can be delivered in as little as two weeks from when a contract is signed. Online professional development courses are immediately available.

Before Reaching Out

As part of the Maricopa Community Colleges, we are uniquely positioned to leverage the collective expertise and resources of our District while also utilizing our network of external facilitators from various industry sectors. Whether it is a skill-building workshop through MCOR or a closed cohort at one of MCCC's campuses, we are dedicated to finding the right solution for your workforce needs.

FOR MORE INFORMATION

Emilio Cabrera, Director of Corporate Partnerships • emilio.cabrera@maricopacorporate.com • 480-377-2730

Training tomorrow's workforce today

Top companies need top talent. Arizona's unprecedented economic approach has been matched by pioneering efforts to equip students with in-demand skills.

As the state's leading economic development agency, the Arizona Commerce Authority serves as industry's primary resource to achieve workforce success. The ACA's statewide network of workforce and education partners combined with our client-oriented approach means no hiring goal is too ambitious. We make it our job to equip companies with the tools and connections needed to succeed.

Our approach brings together all stakeholders to identify skill-sets desired by industry and produce customized training solutions.



GETTY IMAGES

HOW ACA SUPPORTS BUSINESS SUCCESS

The ACA provides a comprehensive suite of services to help businesses succeed. From coordinating resources and facilitating connections to Arizona's talent pipeline and education partners, stakeholder engagement, manufacturing assistance and more, the ACA is ready to partner to support your success.

WORKFORCE PROGRAMS READY TO TACKLE THE FUTURE

Arizona is the national model for innovative and successful workforce development programs. The ACA's collaborative approach brings together all partners to develop comprehensive, award-winning and scalable solutions. Programs such as the Future48 Workforce Accelerators, the Semiconductor Quick Start Technician Program, and Intel's first U.S. apprenticeship program for manufacturing technicians demonstrate our commitment to growing talent pipelines. We develop tailored workforce solutions to help companies reach their goals.

FUTURE48 WORKFORCE ACCELERATORS

The nationally-recognized Future48 Workforce Accelerators equip students with the skills and know-how needed for jobs in the state's growing manufacturing industry. The Accelerators are modeled after the Drive48 facility, an automotive assembly training center located in Pinal County. Since launching in 2021, more than 2,400 students have graduated from Drive48. To scale the success of Drive48, Arizona has announced four additional Future48 Workforce Accelerators, including a battery-focused Accelerator located in Pinal County, a semiconductor Accelerator in Maricopa County, and two rural Accelerators in Yuma and Kingman.

TOP EDUCATION TRAINING TOP TALENT

Arizona is home to a world-renowned university system and one of the largest community college systems in the country. With over 120 total universities and colleges, more than 200 schools offering career and technical education, over 490,000 post-secondary students enrolled statewide, and more than 43,000

engineering students enrolled across the state's universities and community colleges, Arizona's talent pipeline is among the most robust in the country.

NATIONALLY-RANKED WORKFORCE

The state's growing workforce is fueled by Arizona's growing population. Maricopa County ranked the No.1 largest growing county in 2023, and the state ranked the 5th fastest-growing state in 2022. In addition, Maricopa County has ranked No. 1 in the country for attracting and retaining talent for four straight years, and Arizona was ranked a top-3 state in the nation for workforce and top 5 for skilled jobs growth between 2018 and 2022.

With industry, government and education in close alignment, Arizona is poised to continue growing the state's talent pipeline and preparing students for the jobs of tomorrow.

For more information on Arizona's workforce advantages, please visit: azcommerce.com/future48-workforce-accelerators/

“Arizona is the national model for innovative and successful workforce development programs. The ACA's collaborative approach brings together all partners to develop comprehensive, award-winning and scalable solutions.”



Your Future. Made in Arizona.



Arizona is the national model for innovative and successful workforce development programs. The Arizona Commerce Authority's collaborative approach brings together government, academia and industry to develop comprehensive, award-winning and scalable solutions. The Future48 Workforce Accelerators represent Arizona's latest workforce advancement, connecting students with the skills and know-how needed for jobs in the state's growing advanced manufacturing industry. The new workforce development facilities will be located throughout the state and provide customized training in key advanced manufacturing segments such as semiconductor, battery, automotive, aerospace & defense, and more.

ARIZONA
COMMERCE AUTHORITY

Learn more at Future48.com



MANUFACTURING



AIR2O

AIR2O, WEST-MEC PARTNER FOR FAST-TRACK INTERNSHIPS

Phoenix company launched 90-day program in spring of 2024

BY AMY EDELEN
aedelen@bizjournals.com

Phoenix-based Air2O has launched an internship program with Western Maricopa Education Center to spur interest in manufacturing jobs, coinciding with the company's recent growth and planned expansion. Air2O, which develops thermal

management products for "mission-critical facilities," launched the 90-day internship program in the spring. The program builds upon skills students learn in West-MEC courses, said Tom Sullivan, Air2O's chief operating officer.

"We're taking all of that knowledge that they've got as part of the West-MEC program and we're supercharging it over 90 days at an industry level," Sullivan said. "At the end of 90 days, they have a formal interview, get a performance report and at that point, they can be offered a full-time contract with salary, benefits and all the bells and whistles."

Air2O's internship program was

sparked by the company's relationship with the Arizona Commerce Authority and a U.S. Department of Commerce initiative to connect manufacturing companies with Valley high schools.

That led to an introduction to West-MEC, where Air2O's leadership team made company presentations to HVAC and electrical students at the Phoenix-based career and technical school to highlight manufacturing careers.

"You could go work for an HVAC service company. But instead of servicing a refrigeration unit in a residential neighborhood, you could be in our facility, building these gigantic

Air2O Chief Operating Officer Tom Sullivan recently spoke to students at West-MEC.

units that cost a billion dollars," Sullivan said. "We really opened their eyes to a completely new career path that none of them had ever considered before because it's not mainstream."

Air2O focuses on hybrid, on-the-job training

Air2O is partnering with West-MEC to develop curriculum for specific industry-related classes. Air2O offers two high school programs, consisting of hybrid classroom and on-the-job training. In addition to the high school program, Air2O offers an internship via West-MEC's adult education program, which consists of classroom and paid, on-the-job training at the company's north Phoenix facility, Sullivan said.

Air2O's internship program comes on the heels of the company's recent milestone in which it surpassed \$50 million in product orders. What's more, Air2O plans to double its footprint within the next 12 to 18 months to keep up with demand for its HVAC systems.

Air2O, which also has offices in Europe and Southeast Asia, has been involved in large commercial projects worldwide, including data centers, and agricultural, semiconductor and battery facilities. The company operates a 50,000-square-foot manufacturing facility at 425 E. Pinnacle Peak Road.

Air2O's cooling systems are used in hangars for Southwest Airlines at Phoenix Sky Harbor International Airport and at Universal Studios Singapore in areas where people queue for amusement rides, the Business Journal previously reported.

Air2O aims to expand its internship program to other Arizona trade schools in the future, Sullivan said.

"We are actively reaching out to all trade schools and taking what we've learned with this pilot program and pushing it further afield," he said. "We've had great results from students and West-MEC, so some more trade schools is a primary focus of ours over the next 12 months."



GREATER PHOENIX CHAMBER FOUNDATION

2575 East Camelback Road, Suite 410, Phoenix, Arizona, 85016

602-495-6487

<https://connecttoworkaz.com/>
<https://elevateedaz.com/>

TOP EXECUTIVE

TODD SANDERS,
President and CEO
Greater Phoenix Chamber

ABOUT US

Connect to Work AZ and ElevateEdAZ are at the forefront of workforce development in Arizona. Through Connect to Work AZ's jobs-first workforce approach, the initiative works with employers to identify hiring needs and sources diverse talent to best meet them. Qualified candidates are then connected directly to decision-makers, placing unemployed and underemployed job seekers in roles with excellent benefits and growth opportunities in high-demand industries. ElevateEdAZ partners with education, business, and community to prepare students for college and career in Arizona's leading industries. By promoting workforce learning pathways, industry-recognized credentials, early post-secondary credit, and providing work-based learning experiences, ElevateEdAZ and its partners tangibly prepare students for college and career opportunities.

AREAS SERVED

Connect to Work AZ and ElevateEdAZ serve individuals across the Greater Phoenix region by connecting diverse candidates with high-demand career opportunities and provide high school students with essential work-based learning experiences.

SOCIAL

www.facebook.com/phxchamberfound
www.facebook.com/elevateedaz

www.linkedin.com/company/phxchamberfoundation
www.linkedin.com/company/elevateedaz

www.instagram.com/phxchamberfound
www.instagram.com/elevateedaz

x.com/phxchamberfound
x.com/ElevateEdAZ



Types of Services for Employers

Connect to Work AZ offers recruiting assistance to partner employers in high demand fields including, screening, coaching, and referring diverse candidates from underserved communities to roles aligned with their career goals. ElevateEdAZ connects with local Arizona employers to provide high school students with work-based learning experiences, such as job shadows and internships, in high-wage, high-demand careers.

Types of Services for Individuals

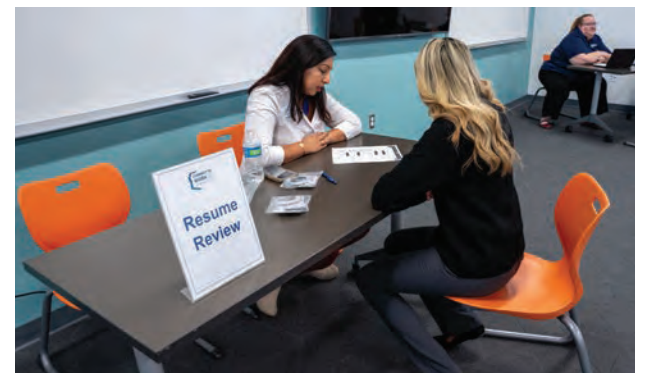
Our services include coaching, job referrals and placement, job readiness assistance, work-based learning experiences, and recruiting assistance.

Areas of Specific Expertise

Connect to Work AZ places candidates in entry-level healthcare and financial roles with strong benefits, competitive pay, and career growth. Candidates are screened and coached for specific roles preparing them to navigate the hiring process with specific employers. ElevateEdAZ provides college and career coaching in high schools, which includes facilitating work-based learning experiences in collaboration with industry partners, and promoting entry and completion of high-wage, high-demand career pathways, industry-recognized credentials, and early post-secondary credit such as dual enrollment.

How Services are Conducted

Services are both in person and online. Connect to Work AZ candidates apply online. If they meet employer qualifications, they undergo phone screening, and then are referred to the employer for an interview. Connect to Work AZ also hosts in person or virtual hiring events. ElevateEdAZ's college and career coaches serve as an on-campus resource to their school partners by placing students in either in person or



virtual work-based learning experiences. Partner schools can be found on the ElevateEdAZ website, elevateedaz.com.

Approximate Cost

There is no cost for candidates to participate in either initiative. Connect to Work AZ employers contribute to sustain the initiative. ElevateEdAZ employers participate at no cost but are encouraged to offer both paid and unpaid internships, among other career exploration experiences.

Approximate Turnaround Time for Training Services

Connect to Work AZ provides services year-round. Hiring timelines vary by employer and can run between 30 and 60 days depending on the employer's process. ElevateEdAZ provides work-based learning opportunities, including internships, throughout the school year and summer.

What Employers/Individuals Should Know Before Reaching Out

Candidates must be at least 18 years of age, reside in Arizona, and qualify as underemployed or unemployed to receive services through Connect to Work AZ. Visit connecttoworkaz.com to view current openings and apply. Job postings change, so candidates are encouraged to check the website regularly for new opportunities. Employers interested in becoming a partner should contact Jill Buschbacher, at jbuschbacher@phoenixchamber.com.

ElevateEdAZ employers offer job shadows, internships, mock interviews, and guest speaking opportunities. They also host educator externships and serve on business advisory councils. Employers interested in partnering to offer students experience in high-wage, high-demand pathways should reach out to the Isabel Gonzalez, at igonzaalez@phoenixchamber.com.

FOR MORE INFORMATION

Jill Buschbacher, Director of Workforce Innovation • jbuschbacher@phoenixchamber.com • 602-495-6487



PHOENIX: DATA SNAPSHOT

The workforce needs in the Phoenix area just keep growing, and the highlights on this page offers some insight into the numbers. Even as the population has swelled in the past decade-plus, some of the Valley's most active sectors have increased the demand for skilled workers. The charts below illustrate how the area's largest industries, population and employment needs have ballooned in recent years.

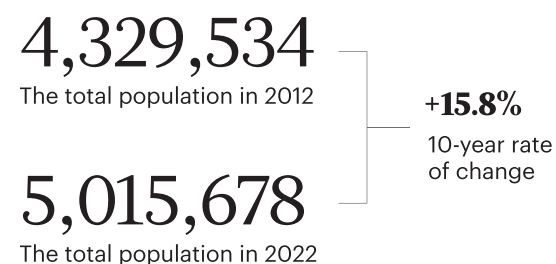
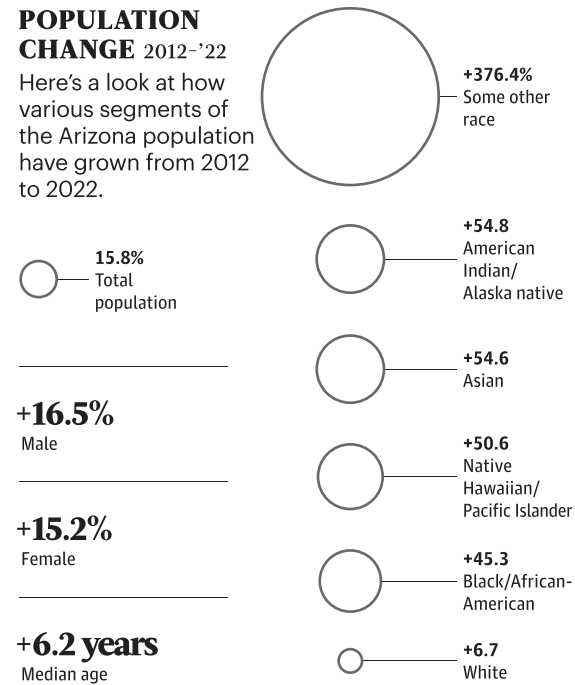
LARGEST INDUSTRIES BY EMPLOYMENT

These sectors can be counted on for employing the bulk of Arizona's workforce

Industry	Percent change in employment, 2012-'22	Total employment, 2022
Trade, transportation and utilities	32.6%	475,900
Education and health services	53.6%	410,400
Professional and business services	29.5%	390,300
Leisure and hospitality	27.5%	247,700
Government	0.9%	237,100
Financial activities	33.9%	212,700
Construction	85.2%	171,300
Manufacturing	25.7%	149,000
Other services	25.5%	79,100
Information	16.3%	40,700
Mining and logging	11.8%	3,800

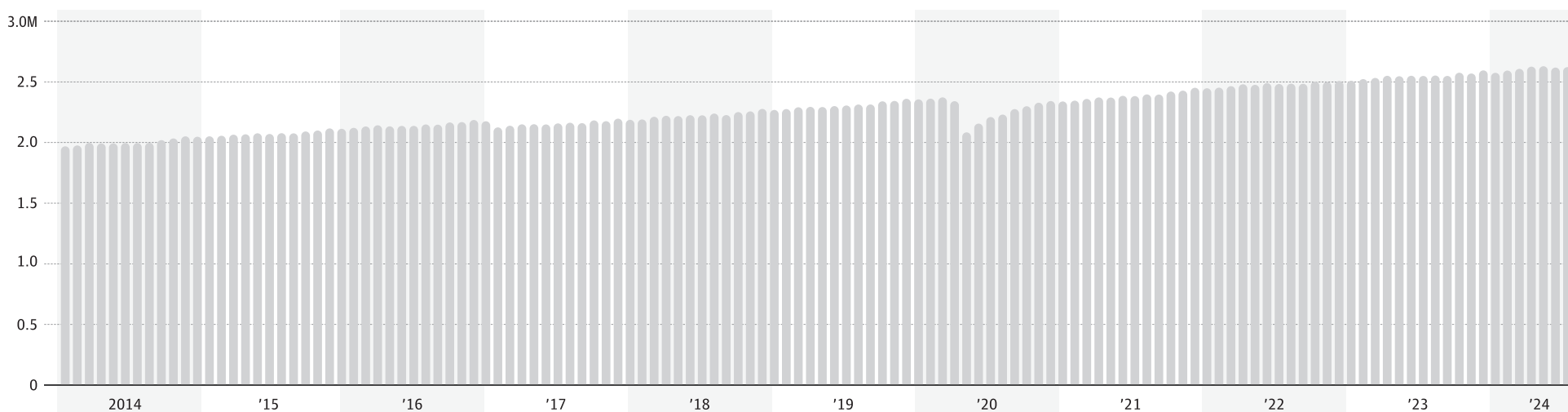
POPULATION CHANGE 2012-'22

Here's a look at how various segments of the Arizona population have grown from 2012 to 2022.



EMPLOYMENT IN PHX 2014- JUNE '24

Aside for a brief drop during the peak of the Covid-19 pandemic, the Phoenix metro has seen steady employment growth over the last decade with more than 2.5 million workers.



SOURCES: BUREAU OF LABOR STATISTICS, U.S. CENSUS AMERICAN COMMUNITY SURVEY



SCOTTSDALE COMMUNITY COLLEGE

9000 E. Chaparral Road
Scottsdale, AZ 85256

480-423-6000

www.scottsdalecc.edu/

TOP EXECUTIVE

DR. ERIC LESHINSKIE
President
Scottsdale Community College

ABOUT US

Scottsdale Community College (SCC) offers workforce training options ranging from a single credit class, micro-credentials and certificates of completion to degrees, as well as instruction customized to a specific organization's needs. Upon completion, learners are prepared to pursue immediate employment; for those already employed, promotional opportunities may become readily available.

SOCIAL

www.facebook.com/ScottsdaleCC.AZ

www.linkedin.com/school/scottsdale-community-college

www.instagram.com/scottsdalecc

www.youtube.com/ScottsdaleCC-AZ

x.com/ScottsdaleCC

Types of Services for Employers

SCC's new Workforce & Community Connections hub supports students and the surrounding business community with relevant, impactful workforce-oriented programming. The Workforce hub serves as a nexus of partners (businesses, nonprofits, tribal and governmental agencies, students, employees and educators) where industry and education can collaborate to maximize outcomes and meet the specific labor needs in the region.

Types of Services for Individuals

SCC is student-centered with a focus on active, engaged and intellectually rigorous learning. The College is known for high quality, accessible educational opportunities and innovative teaching, learning and support services. SCC serves approximately 10,000 students a year, offering more than 100 degrees, certificates of completion, and micro certificates in diverse occupational areas.

Areas of Specific Expertise

SCC offers occupational training programs designed to prepare students with hands-on instruction they can apply immediately in the workplace. Our signature programs include Film, Culinary, Hospitality Management, Business, Computer Information Systems, and Interior Design. The College has recently added new programs based on the specialized needs of local employers, including Financial Services, Community Health Worker, Pharmacy Technology, Cannabis Business Fundamentals, and more.

For example, the financial services industry continues to expand across the Phoenix-metro area and offers meaningful career opportunities. Anyone wishing to pursue a career as a stockbroker, financial adviser, client relationship associate, or related position needs to pass the Financial Industry Regulatory Authority's (FINRA®) Securities Industry Essentials (SIE®) certification exam, a nationally recognized verification of one's knowledge of fundamental industry concepts. SCC recently launched two new Financial Services programs designed to meet the increasing demand for skilled professionals in this sector. Students in the Financial Services programs learn about investments and prepare to take and pass the FINRA SIE Exam.

The Financial Services certificate of completion is a 16-credit offering that adds a variety of business classes to help students with little to no work experience or higher



education. The Financial Services: Prelicensure is a 4-credit micro-certification best for students with significant real-world experience or a degree (whether business-related or not). Students can earn these certificates in a matter of months or even weeks.

SCC's partnerships with prominent industry players, including Charles Schwab, Bank of America/Merrill Wealth Management, CIM Group, Nationwide, Northern Trust, Vanguard, and Wells Fargo, further enhance the program's effectiveness. These industry leaders recognize the value of a talent pipeline that prepares candidates for the specific skills and demands of the financial services industry. With the Financial Services programs, students gain a competitive edge, enabling them to quickly enter the job market and secure rewarding positions.

How are services conducted

SCC offers flexible instruction options with in person, online, and hybrid options.

Approximate Cost

SCC's tuition is \$97 per credit hour, one of the most affordable in Arizona. Many scholarship opportunities are available.

Turnaround Time

Program durations vary. SCC offers Fast Track Certificates where students can attain new industry training and be job ready in as little as 3-6 months.

Before Reaching Out

Representatives from our Workforce & Community Connections hub are happy to meet with employers to create a workforce training program that best meets their needs.

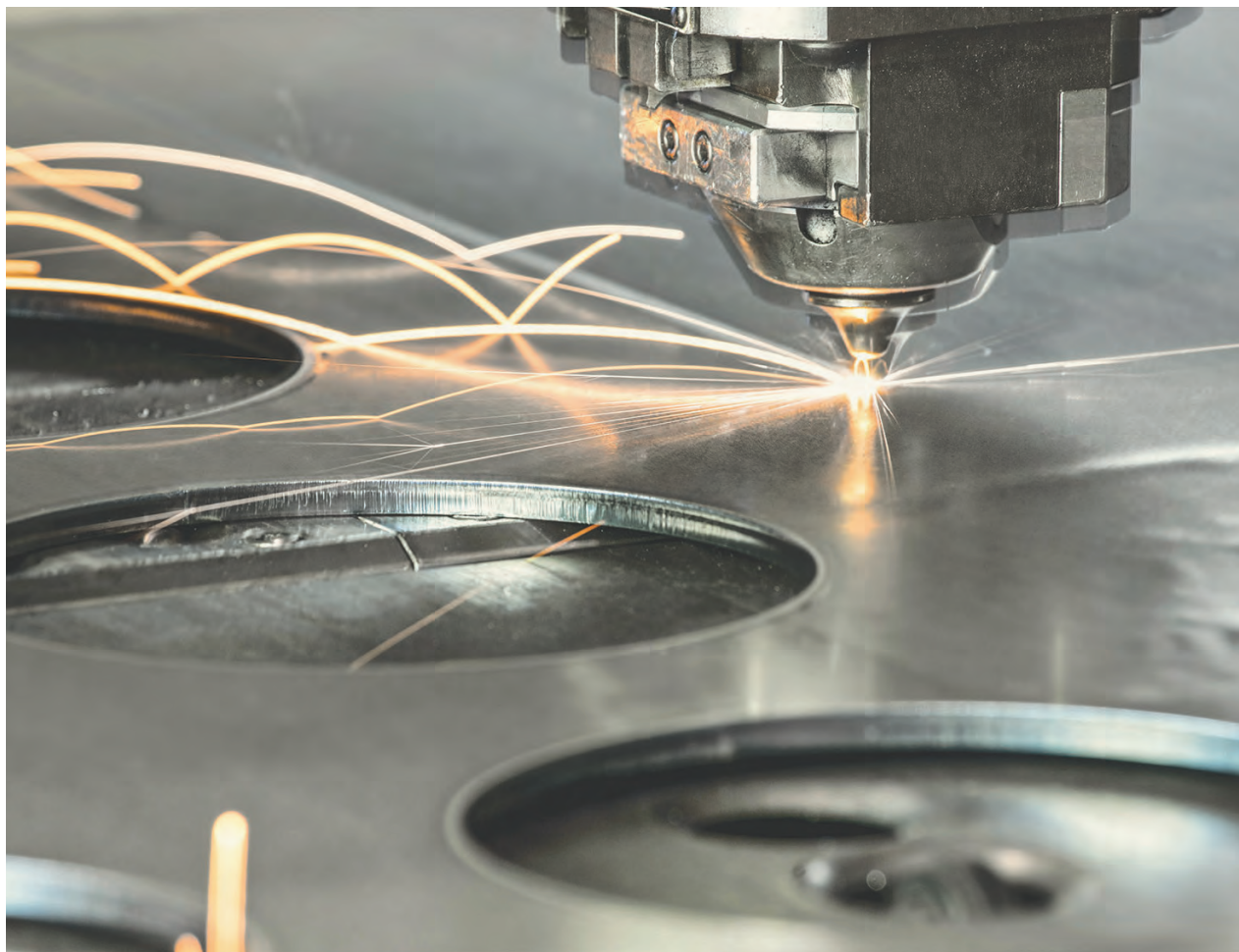
FOR MORE INFORMATION

Melanie Burm, Director of External Affairs - Workforce Development & Community Partnerships • melanie.burm@scottsdalecc.edu



MY VIEW

Impacting Arizona's workforce future



A laser metal cutting manufacturing tool in operation.

FERTNIG | GETTY IMAGES



CARLOS CONTRERAS

the ReadyTechGo Initiative is a scalable regional program for employers, while facilitating student transfers between schools without postponing their graduation. Additionally, it provides companies with the chance to recruit students across various campuses in three different counties with a collective student enrollment of over 59,000 students. The collective college districts have the capacity to enroll approximately 1,800 students per semester for both certificate and degree options in the AIT program. Since 2020, approximately 2,100 students have completed certificate programs using this education.

Through this collaborative and innovative initiative, Arizona is excited to help meet the workforce demands and needs of the advanced manufacturing industry.

The state is focused on providing opportunities for students who want to work in the sector and fast-tracking them to receive the skills and knowledge they need to succeed in their careers in good paying jobs at an affordable cost. As economic growth in Arizona continues to accelerate with new investments, our goal is to ensure opportunities are accessible to all working Arizonans.

In addition, robust workforce development programs are an essential tool for Arizona's continued economic advancement. This initiative aligns with Gov. Hobbs' vision for the state, which aims to provide Arizonans with access to affordable, industry-relevant training programs that lead to quality jobs.

As the advanced manufacturing sector continues to grow, OEO plans to expand the ReadyTechGo Initiative to additional community college districts throughout the state. Additional community colleges who are interested in participating in the ReadyTechGo Initiative should contact the Arizona Office of Economic Opportunity for more information.

Carlos Contreras is director of the Arizona Office of Economic Opportunity.

ReadyTechGo prepares students for advanced manufacturing jobs

Modern manufacturing companies provide more than 162,000 jobs to our state, largely within the rapidly expanding corridor spanning southeast Phoenix to Tucson. As their operations grow, so does their demand for advanced industrial technology workers.

ReadyTechGo, an initiative created by three community college districts and supported by the Arizona Office of Economic Opportunity

(OEO), is offered at Central Arizona College, Estrella Mountain Community College, Mesa Community College and Pima Community College. The initiative aims to bolster innovative manufacturing and tech companies by cultivating a workforce that meets industry standards.

ReadyTechGo features the Automated Industrial Technology (AIT) program. AIT provides students with essential technology and robotic skills for jobs in the growing advanced manufacturing industry. When designing the program, community colleges collaborated closely with Arizona tech employers to ensure the curriculum adapts to evolving industry changes and needs that are aligned to the National Institute for

Metalworking Skills standards.

Connecting schools with advanced manufacturers provides an exclusive opportunity to maximize top-of-the-industry education in the courses, while offering the flexibility to meet employers needs – whether it be one certificate, multiple skill-based certificates or an associate's degree. The four colleges that offer the AIT program, collectively, have industry partnerships representing a range of advanced manufacturing employers including Amkor, Boeing, Intel, LG, Lucid, TSMC and West Pharmaceutical Services.

ReadyTechGo is scalable for employers

In addition to a uniform curriculum,



PEOPLE ON THE MOVE

Share hiring announcements, employee promotions and milestones with the local business community.

With People On The Move, you can:

- Build your company's presence online and in print
- Connect with top business decision makers in your industry
- Showcase new hires, promotions, professional recognition, and more
- Reach nearly 13 million monthly unique visitors across The Business Journals network
- Benefit from rotating promotion on our website's homepage, article pages, and industry news hubs
- Get your detailed profile featured in our weekly print editions

Recognize your team with People On The Move

Contact: **Chris Jansen** | cjansen@bizjournals.com
or call: **602-308-6540**
or learn more at: phoenixbusinessjournal.com/potm



Scan to learn more

PHOENIX
BUSINESS JOURNAL



WORKER BENEFITS



WIKIMEDIA COMMONS / ROBERT SCOBLE

ORGANIZATIONS ADDRESS KEY SEMICONDUCTOR GAP

Federal funds will help chipmakers in Arizona reach child care goals

BY AMY EDELEN
aedelen@bizjournals.com

Two organizations aim to increase access to child care for semiconductor industry employees in Arizona and two other states through a new partnership and infusion of capital.

The SEMI Foundation and Policy Equity Group in August announced a collaboration to leverage federal funding and help semiconductor companies comply with child care requirements under the CHIPS Act. The two organizations plan to work

with early childhood education leaders in Arizona, Ohio and Michigan to increase access to affordable, quality child care, according to a company release.

“Quality child care is critical to the current and future workforce of the semiconductor industry and to ultimately narrowing our talent gap,” Shari Liss, executive director of the SEMI Foundation, said in a statement.

The W.K. Kellogg Foundation and the David and Lucile Packard Foundation are providing \$700,000 as part of the larger Investing in America Child Care Partnership, which leverages federal investments to develop and expand employer child care plans and support career pathways for those who rely on child care, among other things.

The two organizations have not yet determined how much of that

funding will be allocated to Arizona, Michelle Williams-Vaden, spokeswoman for the SEMI Foundation, told the Business Journal.

“In Arizona, we’re braiding this work into the work we have already launched in partnership with the Arizona Commerce Authority to build registered apprenticeship programs for the semiconductor industry and to conduct outreach activities to underrepresented people in the industry,” Williams-Vaden said in an email to the Business Journal. “Our intention is to increase awareness statewide about the industry and the varied careers within it, with a focus on parents and families who rely on childcare to work.”

The SEMI Foundation and Policy Equity Group are in the process of selecting nonprofits and organizations they’ll work with on child care

The SEMI Foundation and the Policy Equity Group are collaborating on a new initiative to boost access to child care for semiconductor industry employees.

initiatives in Arizona, she said.

The two organizations plan to assess the state of the local semiconductor workforce, as well as the child care network and education systems. From there, they will launch outreach programs to connect women and underrepresented workers to the semiconductor industry, while creating child care plans that meet the needs of semiconductor companies.

Intel, TSMC have made child care commitments

As part of a broader workforce investment program and CHIPS Act award agreements, both Intel and TSMC – which are both in the process of building out new semiconductor factories in the region – committed to expanding child care options for workers, the Business Journal previously reported.

Intel plans to provide discounted access to a network of child care providers and a primary child care reimbursement program for nonexempt employees.

Meanwhile, TSMC is expanding childcare subsidies for its local workforce, including discounts, reimbursements and priority enrollment in local early education and childcare centers.

The SEMI Foundation said documentation of lessons learned in concert with the Policy Equity Group, industry leaders and nonprofits could serve as a strategy that can be replicated and scaled in other communities.

“For quite some time, the early childhood field has highlighted child care as essential infrastructure that supports worker productivity and economic growth,” Jeffrey Capizano, president of the Policy Equity Group, said in a statement. “We are fortunate to work with the SEMI Foundation and our philanthropic partners to demonstrate how the business community can contribute to expanding child care capacity and quality in their communities.”

The Policy Equity Group, headquartered in Washington, D.C., is a public company that specializes in education administration programs.

The SEMI Foundation is the nonprofit arm of SEMI, a California-based semiconductor trade industry association with more than 3,000 members. SEMI will be hosting its annual SEMICON West industry conference in Arizona in October 2025. ▮



PAUL THOMPSON | PHOENIX BUSINESS JOURNAL

ARIZONA CONSTRUCTION WAGES ARE GROWING FAST

Phoenix, Tucson among 15 fastest-growing metros for construction pay

BY BREVAN BRANSCUM
Contributing writer

Arizona is one of the national leaders in construction wage growth, with Phoenix ranking as one of the top metros with the fastest-growing wage increases.

According to a report released by Construction Coverage, Arizona saw the No. 7 highest construction wage growth of any state with a 3.2% increase in mean earnings from 2018 to 2023, adjusted for inflation. Among the top large metros with

populations in excess of one million, Tucson recorded a 5.7% increase in the same span – the seventh highest of any large metro in the United States. Metro Phoenix ranked No. 15 with a 3.2% growth.

Construction Coverage used data from the U.S. Bureau of Labor Statistics to determine the rankings.

Phoenix ranked No. 39 among large metros in Construction Coverage’s 2022 wage growth report, with a decrease of -1.4% in inflation-adjusted annual wage. Even though inflation has worked against construction wage growth, Phoenix has managed to increase compensation for workers by nearly \$12,000 from 2018 to 2023.

The wage growth is largely driven by the tech sector, said Clay Creaser, vice president and Phoenix business unit leader for JE Dunn Construction.

“With the rise of companies like TSMC, Intel, Meta, and other mission critical and semiconductor firms, there has been an exponential increase in the demand for skilled trades. I would argue that a 3.2% growth rate is low,” Creaser said in an email. “Larger companies in the area have been offering incentive pay to laborers to retain their workforce and maintain project schedules.”

The high cost of labor has provided workers with opportunities to move between jobs for wage increases of \$1 to \$2 per hour, Creaser added. While material cost escalation is stabilizing, labor demand remains strong.

Grant funding targets labor needs

A recent grant awarded to one of the state’s largest construction work-

Tucson and Phoenix both rank among the top 15 US metros with the fastest-growing construction wages. Above, a worker on site at the VAI Resort project in Glendale in December 2023.

force pipelines aims to address worker shortages.

On July 23, the Maricopa County Community College District announced it will receive \$1 million in funding from the Lowe’s Foundation Gable Grants program. The grant will be divided between Mesa Community College, South Mountain Community College, and Rio Salado College and will allow the colleges to expand construction trade programs and facilities, give access to more resources and hire additional staff to improve education.

The MCCCDC, which will receive the grant in partnership with Maricopa Community Colleges Foundation, is the largest community college system in the U.S. and expects to serve 1,180 individuals in its skilled trades programs during the two-year Lowe’s Foundation Gable Grants period.

That would be a 31% increase in the district’s output of skilled tradespeople flowing into an industry that is projected to add 37,000 new construction jobs state-wide by 2031, according to MCCCDC’s Workforce Development Department. As one of the state’s largest funnels for construction workers, this could balance out the wage growth with the larger output.

The MCCCDC’s Workforce Development Department also noted an 18% shortage of construction professionals in the region during 2023 that contributed to the wage growth. The department added that wage growth will “accentuate recruitment into these high-demand and high-wage construction trade careers in the short term,” and wage growth might flatten out as more positions are filled.

The funds are part of Lowe’s Foundation Gable Grants, which is a five-year, \$50 million commitment to give support to 50,000 people in training for skilled trade careers. Over \$25 million in Gable Grants have been awarded since 2023.

The ultimate impact of the grant funding will depend on the skill level of the new workers entering the market, Creaser said.

“Historically, people have been leaving the trades faster than they have been replenished, leading to a predicted labor shortage in the coming years,” he added. ▮



ON THE JOB TRAINING

APPRENTICESHIP PROGRAMS OFFER SUPPORT FOR ARIZONA WORKFORCE

Arizona's construction workforce could get a jolt from apprentices

BY BREVAN BRANSCUM
bbranscum@bizjournals.com

The Arizona construction workforce could get a jolt due to more apprenticeships receiving sizable grants, including the Arizona Pipe Trades Apprenticeship.

In April, Governor Hobbs announced the city would hand out \$650,000 in

grant awards to five construction and trades registered apprenticeship programs as the BuildItAZ Apprenticeship Initiative. The initiative's implementation is led by the Arizona Office of Economic Opportunity and is aiming to double the number of construction trades registered apprentices by 2026.

"These grants and partnerships with high quality registered apprenticeship programs will offer financial assistance for first-year tuition, books and more for roughly 250 new apprentices in the next year who will be earning while learning in a high growth and well paying job in the building trades," said Carlos Contreras, the Economic Opportunity

Office's CEO, in a statement.

The five apprenticeships receiving grants for the first round of the BuildItAZ Apprenticeship Initiative are:

- Arizona Building Trades and Council
- Phoenix Electrical Joint Apprenticeship and Training Program
- Rummel Construction
- The Laborers Training and Retraining Trust of Arizona
- Tucson Electrical Joint Apprenticeship and Training Program

OEO expects to hand out more grants later in 2024. The first round of apprenticeship grants is expected to create training capacity for an additional 1,500 apprentices over the next two

years, adding to the wealth of apprenticeship programs available in Arizona.

Apprenticeship opportunities are also offered by the private sector.

Arizona Pipe Trades received a \$15 million investment from Taiwan Semiconductor Manufacturing Co. in Dec. 2023, one that the organization plans to use by expanding its Joint Apprenticeship Training Center. The training center is operated by U.S. Local 469 union and holds about 1,000 apprentices at a time, which was planned to grow to over 2,000 with the funds. Additionally, the money will be used to build an on-site semiconductor fabrication room for apprenticeship experience.

\$15M

That's how much the Arizona Pipe Trades received from TSMC in late 2023.



GATEWAY COMMUNITY COLLEGE
A MARICOPA COMMUNITY COLLEGE

BUILDING THE VALLEY'S WORKFORCE FOR OVER 55 YEARS

- Nursing
- Beauty & Wellness
- Non-Credit Training
- Business & IT
- Healthcare
- Trade & Technical Training
- Community Education and much more!

GATEWAY ALSO SUPPORTS



CEI CENTER FOR ENTREPRENEURIAL INNOVATION


An incubation space for bioscience entrepreneurs on GateWay's campus. Since 2013, has supported over 75 startups that created 872 jobs, secured \$135 million in capital, and generated over \$177 million in gross revenue.



PHOENIX FORGE
POWERED BY GATEWAY COMMUNITY COLLEGE

A downtown community makerspace where members have access to equipment (woodworking, metal shop, prototyping, robotics, textiles), tools, software, technical training, and a community of people with similar interests.

ceigateway.com **GATEWAYCC.EDU** phxforge.com



PHOENIX BUSINESS JOURNAL




You've earned it.

You've hit a career milestone - now make it last.

As business leaders, we get so focused on the challenges and opportunities ahead that we fail to acknowledge the milestones we hit along the way.

But those are the moments that matter — to your clients, your colleagues and the competition. So celebrate them, with custom commemorative solutions from the **Phoenix Business Journal's Recognition Shop**.

Explore your options at bizjournals.com/reprints

-  **STRENGTHEN YOUR BRAND ONLINE**
-  **TURN YOUR OFFICE INTO A SHOWCASE**
-  **SHARE YOUR SUCCESS WITH PEERS**

This is your moment. Our job is to make it last.

- Plaques
- Frames
- Desktop Awards
- Digital Solutions

REGISTERED APPRENTICESHIP PROGRAMS ACCEPTING APPLICATIONS

Interested job seekers and employers should contact the program for more details about their openings and how to apply

Ser-Jobs For Progress Arizona, Inc.
Automotive Technician
• Tucson
serjobsforprogress.org

Navajo Tribal Utility Authority
Automobile Mechanic, Electric Meter Repairer, Line Maintainer, Electrician, Gas-Meter Mechanic, Substation Operator, Transformer Repairer, Material Coordinator, Gas-Main Fitter
• Fort Defiance
ntua.applicantpool.com/jobs/

Atarashii Apprentice Program
Barber, Cosmetologist, Esthetician, Hair Stylist, Manicurist
• Statewide
atarashii.org

Arizona Masonry Council Apprenticeship
Blockmason, Brickmason, Block Machine Operator
• Phoenix, Tucson
azmasonry.org/apprenticeship
(602) 262-0510

International Sonoran Desert Alliance
Building Maintenance Repairer
• Ajo
isdanet.org/

Boilermakers Western States Apprenticeship Program
Boilermaker
• Page, Phoenix
westernstatesjac.org/request-for-application
(928) 645-0277

Phoenix Bricklaying & Tile Setting JA&TC
Bricklayer
• Phoenix
Jack Gray, Richard Crawford, azjtc@gmail.com
(602) 628-2711

TOCC Development
Carpentry, Electrical, Facilities Maintenance, HVAC, Masonry, Painting, Plumbing
• Sells
tocc.edu/apprenticeship/

Arizona Pipe Trades
CAD/VDC Technician, HVAC Technician, Pipefitter, Plumber, Welder
• Phoenix
pipetrades.org
(602) 269-8213

Southwest Carpenters Training Fund
Carpenter, Drywall Applicator, Millwright
• Phoenix
swctf.org

Skill Up Arizona Apprenticeship and Award Foundation
CNC Set-Up Programmer, Machinist, Tool & Die Maker
• Tempe
Info@skillupaz.org

Plasterers & Cement Masons JAC
Cement Mason, Plasterer
• Phoenix
opcma.org
(602) 258-8148

Arizona Laborers Training and Apprenticeship
Construction Craft Laborer
• Phoenix
Matthew Gordon, matthew@laborerstrainingschool.com
(602) 258-6521

Finishing Trades Institute of Arizona-JATC
Drywall Tapers, Painters
• Phoenix
finishingtradesinstituteofaz.org,
Thursdays from

1pm - 4pm., Call to schedule a meeting.
Juan Medina, (602) 459-1967

Hylan West Inc.
Drilling Machine Operator, Fiber Optic Splicing Technician
Phoenix
Slade Ottney, sottomney@hylanwest.com
(480) 398-3737

University of Canyon State Electric
Electrician
Phoenix
canyonstateelectric.com
602-437-3088

Globe-Miami Electrical Joint Apprenticeship and Training Program
Electrician, (Inside Wireman)
Globe
Daniel Osteros, globemiamielecjatp@gmail.com
(928) 200-5482

Phoenix Electrical JATC
Electrician, (Inside Wireman)
Phoenix
pejatc.org

NAECA Apprenticeship Program
Electrician
• Flagstaff
NAECA.org

Western Electrical Contractors Association,
Electrician
• Phoenix
goweca.com

ABA-AGC Education Fund
Electrician
• Phoenix

IEC of Southern Arizona
Electrician
• Tucson
iecsaz.org

Independent Electrical Contractors Association
Electrician
• Tempe
iecaz.org/apprenticeship
(480) 456-1444

Tucson Electrical JATC
Electrician (Inside Wireman)
• Tucson
tucsonjatc.org
(520) 790-4690

DP University
Electrician
• Tempe
dpuniversity.com
480.338.2404

Arizona Operating Engineers JA&TS
Heavy Construction Equipment Mechanic, Operating Engineer
• Casa Grande
iuoe428.com/index.php/earn-while-you-learn/

Arizona Heat & Frost Insulators & Allied Workers JATC
Insulation Worker
• Phoenix
arizonahetandfrostinsulatorsjatc.com/
(602) 670-3621

Ironworkers Apprenticeship & Training Program
Ironworker
• Phoenix, Tucson, Statewide
universityofiron.org

Fann Contracting, Inc.
Operating Engineer, Heavy Equipment Mechanic
• Prescott
fanncontracting.com/careers/apprenticeship-

programs/
Rummel Construction, Inc.
Operating Engineer, Heavy Construction Equipment Mechanic, Construction Craft Laborer
• Scottsdale
rummelconstruction.com

Kazal Fire Protection, Inc.,
Pipe Fitter
• Tucson
Mary Lujan, mlujan@kazalfire.com
(520) 323-1518

Aspen Communication Apprenticeship
Telecommunications Technician
• Prescott
Natalie King, nking@aspentelco.com
aspentelco.com/apprenticeship-program/

Dot Transportation Inc.
Truck Driver (Heavy)
• Bullhead City
drivefordti.com/
(928) 404-1778 ext 29035, or ext 29010

PRE-APPRENTICESHIP PROGRAMS

Tucson Electric Power Apprenticeship Program
Occupations: Drafter Electrical, Electric Meter Repairer, Electrician, Powerhouse, Electrician, Substation, Electronics Technician, Line Maintainer, Line, Repairer, Relay Tester
• Tucson
TEP.com/careers
(520) 918-8211
As needed

Arizona Public Service Company Apprenticeship Program
Electrician (Substation/Cableman), Lineman, Polyphase Meterman
• Phoenix, Globe, Yuma
www.aps.com/careers
January-March

Regional District Council Training Trust (Ironworkers, Local 847)
Reinforcing Metal Worker
• Phoenix, Tucson
gladiatorironworkers.org
Ongoing



BUILT ON PURPOSE.

At Sundt Construction, our purpose is to build environments where our clients, employee-owners and communities prosper. **Discover what it means to be an employee-owner.**



APPLY TODAY TO JOIN OUR TEAM.
WWW.SUNDT.COM/CAREERS

ROC: 068013

