

ARIZONA SEMICONDUCTOR Workforce Brief™

Regional Workforce Intelligence for Arizona's Semiconductor Ecosystem

Powered by
The Workforce Register™

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The Workforce Register™

A Regional Workforce Intelligence Publication
Connecting Workforce • Industry • Education • Economic Development

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Regional Workforce Intelligence for Arizona's Advanced Industries

Denise Chaffin, Publisher

The Workforce Lens

Welcome to the Inaugural Issue of the Arizona Semiconductor Workforce Brief™

Arizona's semiconductor industry is experiencing one of the most significant periods of growth in its history. New manufacturing investments, supplier expansions, research initiatives, and education partnerships are transforming the state's economy. Yet behind every announcement is a larger story, one centered on people, skills, and the workforce needed to sustain that growth.

That is why I created the **Arizona Semiconductor Workforce Brief™**.

While many publications report on investments, facilities, and technology, this publication is designed to examine those developments through a workforce lens. My goal is to connect industry, education, workforce development, and economic development into a single conversation that helps employers, educators, policymakers, suppliers, and workforce professionals better understand not only *what* is happening across Arizona's semiconductor ecosystem, but *why it matters*.

Throughout my career in talent acquisition and workforce strategy, I have learned that every major business decision ultimately comes down to people. Whether a company is expanding operations, introducing new technologies, or entering a new market, long-term success depends on having the right workforce in place.

Each issue of the **Arizona Semiconductor Workforce Brief™** will highlight the trends, investments, workforce initiatives, supplier activity, education partnerships, and emerging opportunities shaping Arizona's semiconductor ecosystem.

Along the way, we'll also introduce recurring features including ***Workforce Innovation*** that spotlight new approaches to building the talent pipelines our industry will need for the future.

Thank you for joining us as we launch this inaugural issue. I hope this publication becomes a valuable resource for anyone committed to strengthening Arizona's workforce and advancing one of the nation's most important semiconductor ecosystems.

Welcome to the conversation.

Denise Chaffin
Founder & Publisher
The Workforce Register™

EXECUTIVE SUMMARY

Arizona's semiconductor industry has entered one of the most significant growth periods in its history.

Behind every new manufacturing announcement lies a much larger workforce story—one that will shape Arizona's economy for years to come. The Arizona Semiconductor Workforce Brief™ was created to connect those developments through an Arizona workforce lens.

WHY THIS PUBLICATION EXISTS

Arizona's semiconductor industry is evolving rapidly. Workforce information is often scattered across company announcements, workforce organizations, educational institutions, economic development partners, and public reports. The Workforce Register™ brings those stories together in one place, helping readers understand not only what is happening across Arizona's semiconductor industry, but what those developments mean for the state's workforce.

EXECUTIVE HIGHLIGHTS

ARIZONA'S SEMICONDUCTOR INDUSTRY CONTINUES TO EXPAND

Arizona continues strengthening its position as one of North America's premier semiconductor manufacturing regions through sustained investment, supplier expansion, research collaboration, and workforce partnerships. Beyond the growth of manufacturing facilities, the state's semiconductor ecosystem now includes advanced packaging, equipment suppliers, specialty materials, engineering services, universities, community colleges, workforce organizations, and economic development partners working together to support long-term growth.

WORKFORCE DEVELOPMENT HAS BECOME A STRATEGIC PRIORITY

As investment accelerates, workforce availability has emerged as one of Arizona's most important competitive priorities. Employers, educators, workforce organizations, and state leaders are expanding technician pathways, engineering programs, apprenticeships, certifications, and skills-based hiring initiatives designed to prepare the next generation of semiconductor talent.

SUPPLIER GROWTH CONTINUES ACROSS ARIZONA

Arizona's growth extends well beyond major manufacturers. Equipment suppliers, specialty chemical companies, advanced packaging organizations, engineering firms, and infrastructure partners continue expanding their presence across the state, reinforcing Arizona's position as a nationally significant semiconductor ecosystem.

LOOKING FORWARD

Future editions of the Arizona Semiconductor Workforce Brief™ will continue monitoring semiconductor workforce trends, supplier expansion, education initiatives, Workforce Innovation, workforce metrics, skills-based hiring, and apprenticeship programs. Our goal is to provide consistent, Arizona-focused workforce intelligence that helps

WORKFORCE BRIEF™

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employers, educators, policymakers, workforce professionals, and industry leaders better understand where the state's semiconductor industry is headed.

WORKFORCE REGISTER™ INSIGHT

Every major investment announcement is ultimately a workforce story. Arizona's competitive advantage extends beyond manufacturing capacity—it is increasingly defined by the strength of the workforce ecosystem supporting the industry's continued growth.

ABOUT THIS PUBLICATION

The Arizona Semiconductor Workforce Brief™ is published by The Workforce Register™, a regional workforce intelligence publication focused on Arizona's advanced industries.

Each issue is guided by one question:

What does this mean for Arizona's workforce?

ARIZONA INDUSTRY SNAPSHOT

ARIZONA'S SEMICONDUCTOR INDUSTRY CONTINUES TO ACCELERATE

Arizona's semiconductor industry continues to build momentum through sustained private investment, public-private collaboration, education initiatives, supplier expansion, and workforce development. What began decades ago with foundational investments by companies such as Intel and Microchip Technology has evolved into one of the nation's most strategically important semiconductor industries.

Today, the state's semiconductor ecosystem extends well beyond manufacturing. It includes advanced packaging, semiconductor equipment suppliers, specialty materials providers, engineering services, research institutions, universities, community colleges, workforce organizations, and economic development partners working together to support long-term growth.

As demand for advanced semiconductors continues to increase—driven by artificial intelligence, high-performance computing, automotive technologies, and advanced manufacturing—Arizona is strengthening its role as a strategic center for domestic semiconductor production and workforce development.

BY THE NUMBERS

The following indicators illustrate both the scale of Arizona's semiconductor industry today and the opportunities ahead as investment continues to accelerate across the region.

Metric	Current	Why It Matters
Semiconductor-related occupations (Greater Phoenix)	176,322	Demonstrates one of the nation's deepest pools of semiconductor-related talent.
Semiconductor manufacturing jobs	30,499	Reflects Arizona's established manufacturing base and future workforce demand.
Historical semiconductor investment	\$135+ billion	Represents decades of public and private investment supporting continued expansion.
National manufacturing employment rank	4th largest U.S. metro	Positions Greater Phoenix among America's leading semiconductor regions.

Sources: Greater Phoenix Economic Council (GPEC), Lightcast, Arizona Commerce Authority (ACA), and publicly available industry reports.

MORE THAN MANUFACTURING

Arizona's competitive advantage is not defined by fabrication facilities alone. Its strength lies in a connected semiconductor ecosystem that brings together manufacturing, advanced packaging, equipment suppliers, specialty chemicals, research, education, workforce development, and economic development into a collaborative network supporting long-term industry success.

ECOSYSTEM HIGHLIGHTS

- Taiwan Semiconductor Manufacturing Company (TSMC) continues expanding its long-term investment in North Phoenix.
- Amkor Technology is building a \$7 billion advanced packaging and test campus in Peoria.
- Applied Materials continues growing its research and development presence in Chandler alongside Arizona State University.
- ASML maintains a major engineering training hub supporting regional customers.
- Arizona universities and community colleges continue expanding semiconductor education and technician pathways.

WORKFORCE REGISTER™ INSIGHT

Data becomes meaningful only when it is connected to workforce outcomes. Arizona's continued growth reflects more than capital investment—it demonstrates the emergence of a collaborative workforce ecosystem capable of supporting long-term semiconductor industry expansion.

ARIZONA AT A GLANCE

- Artificial Intelligence
- Advanced Packaging
- CHIPS Act Investments
- Research & Development
- Supplier Expansion
- Workforce Development

ARIZONA'S SEMICONDUCTOR MOMENTUM CONTINUES

INVESTMENTS CONTINUE TO STRENGTHEN ARIZONA'S POSITION AS A GLOBAL SEMICONDUCTOR HUB

As national attention focuses on specific manufacturing investments, a more notable story emerges as Arizona converts to a complete semiconductor ecosystem.

The Arizona semiconductor ecosystem is comprised of:

Manufacturers – Suppliers - Educational Institutions
Workforce Organizations - Economic Development Partners

These integrated sections of the ecosystem are collectively building long-term capacity.

Note: Every major investment announcement is ultimately a workforce story.

New fabrication facilities, advanced packaging operations, and supplier expansions create demand not only for engineers, but also for technicians, skilled trades, operations professionals, supply chain specialists, educators, and workforce development partners.

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY (TSMC) REINFORCES ARIZONA'S STRATEGIC IMPORTANCE

TSMC continues to serve as a new cornerstone of Arizona's semiconductor growth.

During 2026, the company announced an additional \$100 billion U.S. investment, bringing its total planned investment to approximately \$265 billion. The expansion includes additional fabrication facilities, advanced packaging capabilities, and research activity in North Phoenix.

Earlier in the year, TSMC completed a \$197 million land acquisition, reinforcing its long-term commitment to Arizona. According to the Arizona Technology Council and Electronics360, the expanded campus could ultimately support multiple fabrication facilities and related operations, further strengthening Arizona's role in domestic semiconductor manufacturing.

SUPPLIER GROWTH FOLLOWS MANUFACTURING INVESTMENT

Major semiconductor investments attract an equally important network of suppliers. This is where we'll see a huge uptick in workforce development and hiring.

Equipment manufacturers, specialty chemical companies, facilities providers, engineering firms, and advanced materials organizations continue expanding their presence throughout Arizona to support both existing and future manufacturing operations.

A recent example is Uangyih Industrial Company, a Taiwan-based supplier specializing in air abatement and wastewater treatment systems for semiconductor manufacturing. The company's acquisition of a 107,400-square-foot facility in Surprise reflects the broader trend of suppliers locating near Arizona's expanding semiconductor industry.

Additional organizations expanding or strengthening their Arizona presence include:

- Applied Materials
- ASM America
- ASML
- Edwards Vacuum
- Fujifilm Electronic Materials
- Sunlit Chemical
- Air Liquide
- KPCT Advanced Chemicals
- Chang Chun Chemical

ADVANCED PACKAGING STRENGTHENS ARIZONA'S COMPETITIVE POSITION

Arizona's growth extends beyond wafer fabrication. Advanced packaging has become an increasingly important component of the semiconductor value chain as artificial intelligence, high-performance computing, and next-generation chip architectures drive demand for more sophisticated manufacturing processes.

Amkor Technology continues construction of its \$7 billion advanced packaging and test campus in Peoria. Public reporting indicates that Phase One production capacity has already been committed ahead of the facility's planned opening, with major customers including Apple, TSMC, and NVIDIA.

WORKFORCE IMPLICATIONS

The continued expansion of Arizona's semiconductor industry will require a diverse workforce extending well beyond traditional engineering roles. Demand is expected to remain strong for:

- Process Engineers
- Equipment Engineers
- Manufacturing Technicians
- Facilities Technicians
- Field Service Engineers
- Quality Engineers
- Supply Chain Professionals
- Construction Trades
- Advanced Manufacturing Specialists

As supplier activity continues to expand, workforce demand will increasingly extend across the broader ecosystem, creating opportunities for education providers, workforce organizations, and employers to collaborate on sustainable talent pipelines.

WORKFORCE REGISTER™ INSIGHT

Arizona's competitive advantage is no longer defined by a single company or manufacturing campus. It is increasingly shaped by the strength of an interconnected semiconductor ecosystem where investment, innovation, education, and workforce development reinforce one another.

Sustaining that momentum will depend on Arizona's ability to continue developing the skilled workforce needed to support future growth.

TRANSITION TO THE NEXT SECTION

While Arizona's investments continue attracting global attention, sustaining that momentum will ultimately depend on one critical factor:

Building the workforce capable of supporting the industry's continued growth.

That challenge—and opportunity—is the focus of our Workforce Spotlight.

WORKFORCE SPOTLIGHT

BUILDING ARIZONA'S SEMICONDUCTOR WORKFORCE FOR THE NEXT DECADE

Arizona's semiconductor industry has entered a defining period of growth. While investments, new facilities, and supplier announcements often dominate the headlines, the long-term success of the industry will ultimately depend on one factor above all others: the availability of a skilled workforce.

Every major investment announcement is ultimately a workforce story. As Arizona expands its semiconductor manufacturing capacity, the state must also expand its ability to educate, train, attract, and retain the people needed to support that growth.

A GROWING CHALLENGE—AND OPPORTUNITY

According to reporting by AZFamily, a workforce analysis prepared with the Arizona Board of Regents and the Rounds Consulting Group projects that Arizona could experience a growing shortage of skilled workers as semiconductor investment continues to accelerate.

Jim Rounds noted that projected workforce gaps could increase each year unless education capacity and workforce development efforts expand alongside industry investment. The findings reinforce an important point: building semiconductor facilities and building the workforce to operate them must happen together.

ARIZONA STARTS FROM A POSITION OF STRENGTH

The outlook is not defined solely by workforce shortages. Arizona already possesses significant strengths that position the state for long-term success.

Anthony Howell, Associate Professor of Economics and Public Policy at Arizona State University, noted that Greater Phoenix already demonstrates specialization in several critical semiconductor disciplines, including:

- Process Engineering
- Photolithography
- Wafer Testing

Public reporting also indicates that TSMC's latest expansion could generate approximately 10,000 to 12,000 construction jobs and an estimated 12,000 operational positions once the facilities become fully operational.

WORKFORCE DEVELOPMENT IS BECOMING AN ECOSYSTEM STRATEGY

One of the most significant changes occurring across Arizona is the recognition that workforce development cannot be solved by employers alone. Manufacturers, suppliers, universities, community colleges, workforce organizations, industry associations, and economic development partners are increasingly collaborating to strengthen Arizona's talent pipeline.

- Expanded semiconductor engineering programs
- Community college technician pathways
- Industry-recognized certifications
- Employer-education partnerships
- Workforce training initiatives
- Regional collaboration across the semiconductor ecosystem

THE RISE OF SKILLS-BASED HIRING

Another important trend is the growing emphasis on skills-based hiring. While many semiconductor careers continue to require engineering and technical degrees, employers are increasingly recognizing alternative pathways into the industry.

- Technical certifications
- Registered apprenticeships
- Earn-and-Learn programs
- Micro-credentials
- Technician education
- Skills-first hiring practices

These pathways are helping broaden access to high-quality careers while creating additional options for employers facing persistent talent shortages.

WORKFORCE INNOVATION

Beginning with this issue, the Arizona Semiconductor Workforce Brief™ introduces Workforce Innovation as a recurring feature highlighting emerging workforce strategies across Arizona. Future editions will explore apprenticeships, technician pathways, certifications, K-12 awareness initiatives, employer-education partnerships, and other innovative approaches shaping the state's workforce.

WORKFORCE REGISTER™ INSIGHT

Arizona's workforce advantage will not be built by one organization. It will be built through sustained collaboration across education, industry, workforce development, and economic development. That collaboration is becoming one of Arizona's greatest competitive strengths.

ARIZONA WORKFORCE WATCH

- Semiconductor workforce demand
- Enrollment in semiconductor-related education programs
- Industry certifications
- Apprenticeship participation
- Placement and retention rates
- Career progression
- Wage trends
- Skills-based hiring adoption

SOURCES

Primary reporting for this section includes AZFamily (July 16, 2026), the Arizona Board of Regents, the Rounds Consulting Group, and Arizona State University.

LOOKING FORWARD

ARIZONA'S WORKFORCE STORY IS JUST BEGINNING

Arizona's semiconductor industry is entering a defining period of growth. New manufacturing investments, supplier expansions, education partnerships, and workforce initiatives are being announced with increasing frequency. Individually, each development is important. Together, they tell the story of a state building one of the world's most significant semiconductor industries.

The Workforce Register™ was created to connect those developments through a workforce lens. Our mission is to help employers, educators, workforce organizations, policymakers, suppliers, and economic development leaders understand not only what is happening—but why it matters for Arizona's workforce and long-term competitiveness.

NEW RECURRING FEATURE

Workforce Innovation

Beginning with this issue, Workforce Innovation becomes a permanent section of the Arizona Semiconductor Workforce Brief™. Each edition will highlight emerging workforce strategies, apprenticeships, technician pathways, micro-credentials, skills-based hiring, education partnerships, and other innovations helping Arizona build its future workforce.

COMING IN VOLUME 2

Volume 2 will build on the foundation established in this inaugural issue by expanding workforce intelligence, introducing new recurring metrics, and highlighting additional voices from across Arizona's semiconductor ecosystem.

- SEMICON West's permanent move to Phoenix beginning in Spring 2027
- Workforce Innovation Spotlight
- Arizona Workforce Dashboard
- Supplier Spotlight
- Education and apprenticeship updates
- Semiconductor hiring trends
- Emerging employers and ecosystem developments

ABOUT THE WORKFORCE REGISTER™

The Workforce Register™ is a regional workforce intelligence publication focused on Arizona's advanced industries. Through workforce analysis, industry reporting, ecosystem updates, and education insights, the publication connects workforce, education, industry, suppliers, and economic development to support better talent decisions and stronger regional collaboration.

EDITORIAL MISSION

Every issue of The Workforce Register™ is guided by a single editorial question:

“What does this mean for Arizona's workforce?”

That question shapes every article, every analysis, and every workforce insight presented in this publication.

SOURCES

- Arizona Board of Regents
- Arizona Commerce Authority (ACA)
- Arizona Technology Council
- AZFamily
- Electronics360
- Greater Phoenix Economic Council (GPEC)
- Lightcast
- Phoenix Business Journal
- SEMI and SEMI Foundation
- Company announcements and public reports

CLOSING THOUGHT

This inaugural issue marks the beginning of a long-term effort to document and interpret the workforce trends shaping Arizona's semiconductor industry. As the ecosystem continues to evolve, The Workforce Register™ will continue serving as a trusted regional resource for workforce intelligence.

Because workforce is everyone's business.