

## **Background: The Semiconductor Industry in Arizona**

semiconductor industry companies across the state<sup>i</sup> \$102B

Private sector investment announced since introduction of the CHIPS and Science Actii

Growth in semiconductor employment since 2018

Semiconductor expansions representing nearly 19,000 jobs since introduction of the CHIPS and Science Actiii

25,800+ ~37,000

Jobs in the semiconductor industry in the state in 2023 iv

Students enrolled in engineering programs across the state each year<sup>v</sup>

2,000

Graduates in semiconductor-related degrees produced by AZ universities each year vi

# The Investing in America agenda is promoting growth of the semiconductor industry in **Arizona including:**

- CHIPS for America has announced proposed investments in leading-edge logic chip manufacturing
  - Up to \$8.5 billion in proposed direct funding for Intel Corporation to construct two new fabs and modernize one existing fab in Chandler as part of a multi-state investment; and
  - Up to \$6.6 billion in proposed direct funding for TSMC Arizona Corporation to construct three greenfield leading-edge fabs in Phoenix.
- Phoenix was designated as an Investing in America Workforce Hub by the White House in May 2023 for several key industries including semiconductor manufacturing;
- Arizona State University (ASU) is leading the Southwest Advanced Prototyping Hub, awarded \$39.8 million through the Department of Defense Microelectronics Commons program; and
- ASU was awarded \$13.8 million from the U.S. State Department to bolster the assembly, testing, and packaging capabilities in partner countries in the Americas and Indo-Pacific.

# The CHIPS and Science Act ("CHIPS") is spurring new investments in critical infrastructure including:

- \$200+ million by the City of Phoenix in new public infrastructure investments, including roadways, water and wastewater;
- \$30+ million in water and road improvements by the City of Chandler, including construction of a new reclaimed water facility that supports drought prevention;
- \$10+ million invested by the City of Peoria and \$50+ million by Pinal County for roadway and other infrastructure needs;
- \$1+ billion in new funding from the state, county, and U.S. Department of Transportation to widen Interstate 10, a major thoroughfare key to connecting the semiconductor ecosystem; and
- Implementation of fast track and expedited permitting programs in Chandler and Phoenix to get projects quickly from design to construction.



## **Arizona Semiconductor Industry**



### CHIPS is stimulating the growth of research and development assets including:

- \$270 million public-private investment in ASU's Materials-to-Fab Center;
- \$17.5 million state investment in expansion of ASU's MacroTechnology Works facility to support advanced packaging and gallium nitrate research capabilities;
- \$35.5 million in state funding to expand the University of Arizona's Micro/Nano Fabrication Center;
- \$13 million state investment in Northern Arizona University (NAU) to expand research and educational programs related to metrology.

# CHIPS is catalyzing new workforce development pipelines to connect residents with good-paying jobs in the semiconductor industry including:

- \$4 million investment by the Arizona Commerce Authority in growing semiconductor
  Registered Apprenticeship Programs (RAPs) and announcements with Intel, NXP, and TSMC;<sup>vii</sup>
- \$15 million state investment in a new semiconductor-focused Future48 workforce accelerator in collaboration with Maricopa Community Colleges;
- \$13 million City of Phoenix investment in the Innovation 27 Workforce Training and Education
   Collaborative to support high school students in obtaining certifications for high-demand jobs in
   advanced manufacturing with tuition covered by the State;
- Expansion of Arizona's Semiconductor Technician Quick Start Program, a partnership between Intel, TSMC, and Maricopa County Community Colleges; and
- State investments in new semiconductor program offerings at NAU; ASU; U of A; and Pima and Central Arizona Community Colleges.

# CHIPS is mobilizing new initiatives to ensure economic benefits of semiconductor industry growth reach the whole community including:



#### Addressing the Childcare Shortage

Arizona's new <u>child care needs study</u> includes a focus on the semiconductor industry and aims to both identify current gaps and challenges in childcare and devise strategies to meet current and future needs.



#### **Supporting Wraparound Services**

<u>Arizona Community Foundation</u> will drive the creation of a \$5 million philanthropic fund in partnership with other community-based organizations to provide wraparound services for training of 1,500 non-traditional talent and underserved residents.



#### **Growing the Innovation Ecosystem**

<u>Plug and Play accelerateAZ</u> pairs promising startups with industry leaders to promote innovation. The accelerator is focusing its first program on advanced manufacturing including semiconductors.



### **Expanding the Construction Pipeline**

<u>BuildItAZ</u> is leading a statewide initiative to double the number of construction and trades registered apprentices by 2026 to almost 8,000. This program is expanding access to preapprenticeships, creating new pathways into the industry especially for women and other individuals from underrepresented communities.



#### **Fact Sheet**

# Arizona Semiconductor Industry



#### **Arizona Economic Development Contacts:**

- Arizona Commerce Authority
  - Contact Email: RyanR@azcommerce.com
- Greater Phoenix Economic Council
  - Contact Email: ccamacho@gpec.org
- City of Phoenix Community and Economic Development
  - Contact Email: christine.mackay@phoenix.gov
- City of Chandler Economic Development
  - o Contact Email: micah.miranda@chandleraz.gov

Note: This fact sheet provides examples of entities, programs, and initiatives that CHIPS for America is aware of in the State of Arizona to support its growing semiconductor industry. The information is based on CHIPS for America engagement with entities involved in Arizona's semiconductor industry and was collected in collaboration with the Arizona Commerce Authority. The Arizona Commerce Authority provided the list of state and local economic development organizations in geographies with leading-edge CHIPS Incentives announcements.

Inclusion in this fact sheet does not convey the CHIPS Program Office's approval, endorsement, sponsorship, or other evaluation of any entity, program, or initiative, nor does the exclusion of any entity on the list convey any disapproval. The CHIPS Program Office makes no claims, promises, or guarantees about the completeness, accuracy, or currency of information in this fact sheet. All examples are non-exhaustive and provided for informational purposes only.

vii \$4 million is part of the larger \$100 million commitment from the State to semiconductor workforce development and R&D.



<sup>&</sup>lt;sup>i</sup> Arizona Commerce Authority client data

ii Arizona Commerce Authority client data

iii Arizona Commerce Authority client data

iv BLS QCEW, modified by Lightcast (2024.1 datarun)

 $<sup>^{\</sup>nu}\ \ https://www.gpec.org/industries-operations/industries-in-greater-phoenix/semiconductors/$ 

vi https://www.gpec.org/industries-operations/industries-in-greater-phoenix/semiconductors/