Building the U.S. Semiconductor Workforce
CHIPS for America Workforce Update

November 15, 2023
CHIPS for America Programs

$39 billion for manufacturing

Components:
1. Attract large-scale investments in advanced technologies such as leading-edge logic and memory
2. Incentivize expansion of manufacturing capacity for mature and other types of semiconductors

$11 billion for R&D

- National Semiconductor Technology Center
- National Advanced Packaging Manufacturing Program
- Manufacturing USA institute(s)
- National Institute of Standards and Technology measurement science

Together with CHIPS initiatives from other agencies, including DOD, State, NSF, and Treasury

Workforce development
# CHIPS Workforce Call to Action

**OVER THE NEXT DECADE…**

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<th>Double the U.S. semiconductor workforce overall.</th>
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<td><strong>Triple the number of graduates</strong> in semiconductor-related fields, including engineering.</td>
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<td><strong>Train 100,000 new technicians</strong> through apprenticeships, career and technical education, and career pathway programs.</td>
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<td>Expand recruitment for <strong>more people from underserved communities</strong> – including women and veterans – to launch semiconductor industry careers.</td>
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<td><strong>Hire and train an additional million women in construction</strong> to meet the demand across a range of industries, including CHIPS projects.</td>
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Key Workforce Milestones to date

**SINCE THE PASSAGE OF THE CHIPS AND SCIENCE ACT...**

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<th>At least <strong>seven states</strong> have dedicated new funding to support workforce training for semiconductor jobs.</th>
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<td>Over <strong>50 community colleges across 19 states</strong> have announced new or expanded programming to support semiconductor opportunities.</td>
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<td>Semiconductor companies partnering with labor unions to recruit, train and retain a skilled construction workforce, <strong>including several that committed to Project Labor Agreements</strong>.</td>
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<td>CHIPS for America has engaged directly with <strong>education and training partners in over 25 states</strong>—including hosting in-person workforce roundtables and listening tour sessions.</td>
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<td>NSTC Vision and Strategy Paper named workforce development as one of <strong>NSTC’s Top Three priorities</strong></td>
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### Key Incentives Program Workforce Updates

- Most CHIPS incentives awards for construction, modernization or expansion of manufacturing facilities will include dedicated funds for workforce development.

- Public and private workforce investments in CHIPS-funded facilities expected to exceed $500 million, based on commitments and industry benchmarks.

- Workforce data collection will be embedded in awards to support long-term efforts.

- CHIPS for America expects new commitments to Registered Apprenticeships and pre-apprenticeships as a result of CHIPS awards.

- CHIPS for America staff expect to work closely with incentives recipients and regional education and training partners to support implementation of workforce strategies.
NSTC Workforce Center(s) of Excellence Concepts

**FOUR KEY ROLES:**

- **Convene** industry, research, education, government and labor stakeholders
- Collect data to measure the success of existing programs and guide future investment
- **Scale up** proven programs
- **Pilot new efforts**, including initiatives to engage underserved communities