

Happy Anniversary Chips and Science Act - 2023

In the one year since CHIPS was signed into law, companies have announced over \$166 billion in manufacturing in semiconductors and electronics, and at least 50 community colleges in 19 states have announced new or expanded programming to help American workers access good-paying jobs in the semiconductor industry.

Over the past year, agencies across the federal government have been developing and executing programs established under CHIPS to encourage domestic semiconductor manufacturing, invest in research and development, and support supply chain resilience and workforce development.

- Less than 150 jobs in the DOC and other agencies have been created from transfers and role changes. Partnerships created thus far only project 21,000 new manufacturing jobs at the greenfield fabrication facilities on the books.
- First funding opportunities have been announced and will put \$39million into the economy by investments in fab and manufacturing ecosystems.
- DOC/NIST announced an initial set of five Workforce Hubs to create pipelines for Americans to access good-paying jobs in the semiconductor industry national **Workforce Sprint** program focusing on creating pipelines into advanced manufacturing jobs, including in the semiconductor industry.
- \$500B private and state investments have been committed although some state funding is contingent upon fabs being cited and awarded in states.
- At least 50 community colleges have already announced plans for new or expanded semiconductor workforce programs to create jobs that may not require a 4-year college degree.
- A host of regional economic development, research and innovation investment initiatives are planned.

While a glowing capsule at first glance, there are questions of the readiness preparation of education and training to supply the manufacturing workforce, and to adequately engage the community of HBCU institutions in education, training, and research partnerships.

The CHIPS and Science Act won't build inclusive innovation unless Racial and Ethnic Diversity Communities are Engaged.

Most of the languages out of the Chip and Science Act discussion mention aspirational inclusivity. Exactly how it is accomplished, and to what degree, remains to be seen.

The first ever **NSF Engine Development Awards** will help regional partners collaborate to advance key technologies, address societal challenges, and create economic opportunities highlighted in the Chips and Science Act. 44 unique teams span across the US and territories qualified for an award.



The NSF Engines program is anticipated to be transformational for the nation, ensuring the U.S. remains globally competitive in key technology areas for decades to come. The sole team centered at an HBCU was at **Jackson State University** which would have been awarded \$1,000,000 did not make the list of 16 finalists.

It's clear that the skills gap in the industry is a widespread challenge, and it's great to hear that the manufacturing industry nationwide is committed to getting on the funding gravy train for local initiatives. Collaboration between industry and education is key to bridging the awareness gap and developing the skilled workforce that the manufacturing industry needs.

Reports and Resources

Research estimates that failure to address racial and gender inequities in the labor market (*who has access to what jobs*) can hamper growth in aggregate market output per capita by 20% to 40%.