

CHIPS and Science Act of 2022

Bernard L. Schwartz
Rediscovering
Government Initiative

THE CENTURY
FOUNDATION

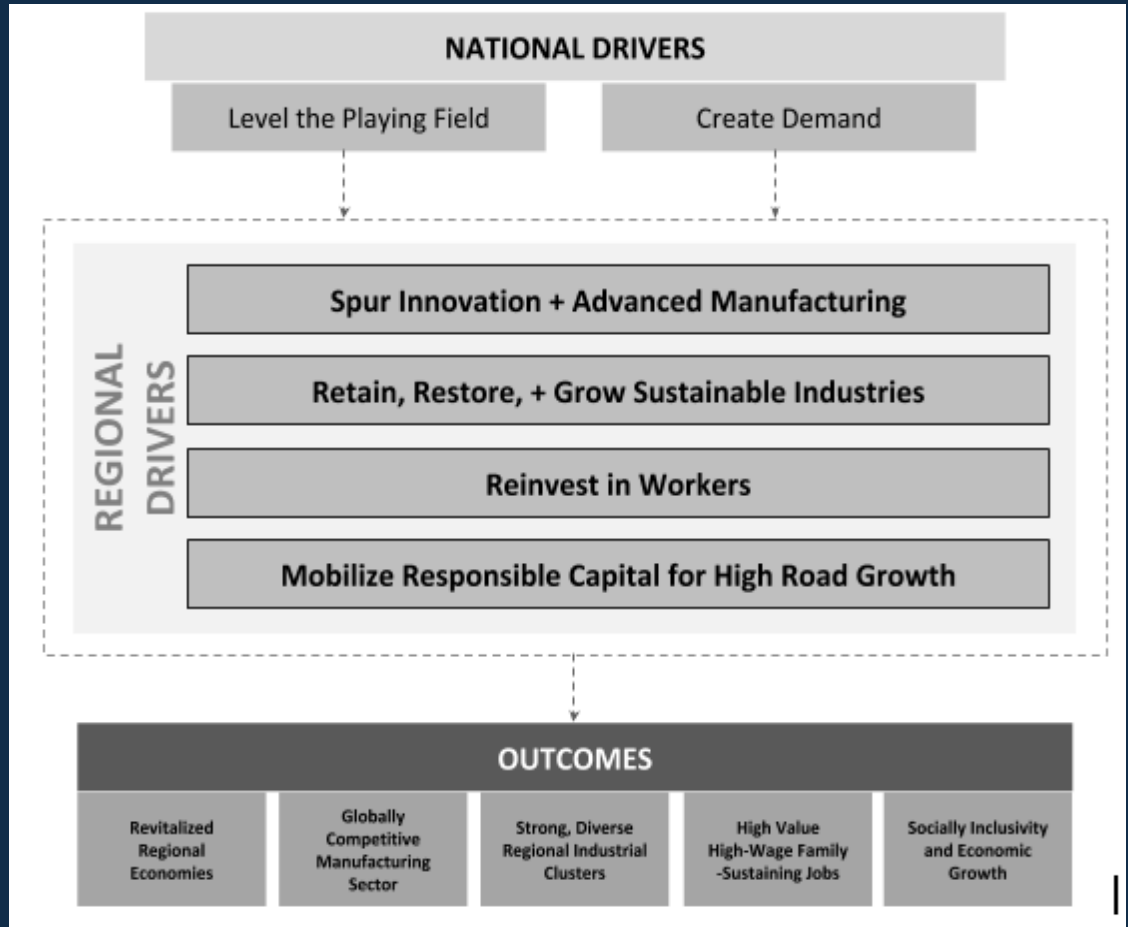
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TCF Strategy for Revitalizing Manufacturing Communities



Source



<https://tcf.org/content/report/revitalizing-americas-manufacturing-communities/>

Baking the CHIPS Act - Predecessors

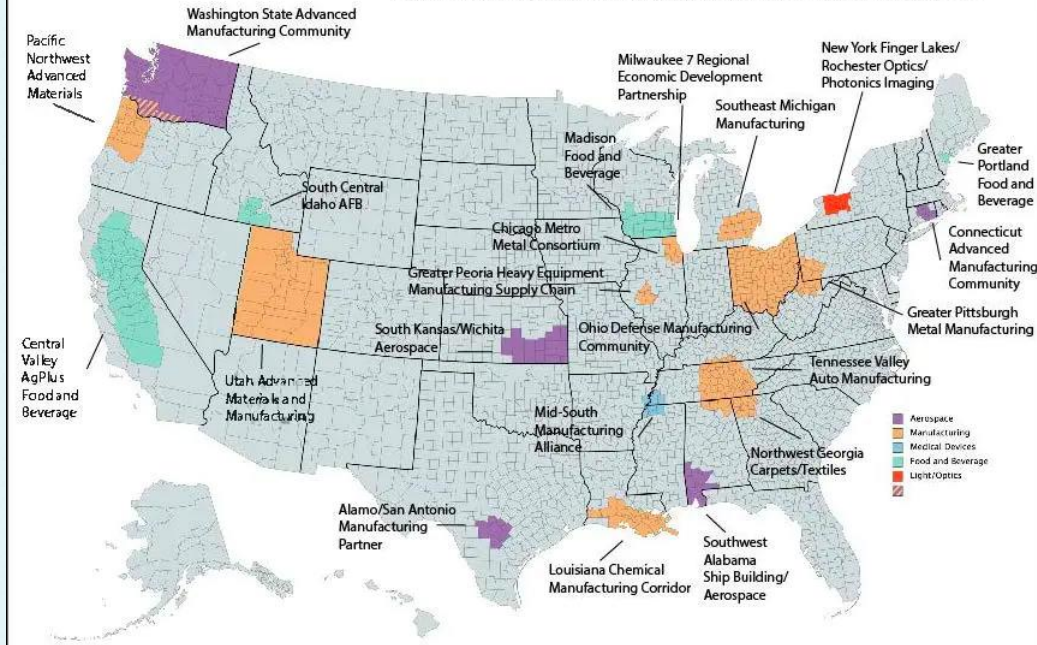
1. Designated Manufacturing Communities Model
 - a. Communities organize a diverse public/private backbone organization
 - b. Communities conduct a regional SWOT analysis on key criteria
 - c. Communities create a plan to produce better outcomes: e.g. the Big 6 manufacturing ecosystem elements: workforce, supply, research, infrastructure, trade, operational improvements & capital access

1. Demand for these Federal Interventions is Strong:
 - a. 2014 EDA IMCP
 - b. 2018 DOD DMCSP
 - c. 2021 EDA BBB
 - d. 2022 DOE LEAP

American Manufacturing Communities Collaborative

IMCP/AMCC Communities


The AMC Collaborative represents a growing coalition of manufacturing based communities dedicated to sustainable economic growth nationwide. These communities are the backbone of the AMCC network.



High Level Summary



CHIPS Act - Fast Jobs Potential

 **Micron exec: New Idaho semiconductor factory 'not possible without' CHIPS Act**

Tue, September 13, 2022 at 10:43 AM

CHIPS Act drives major investments from chipmakers Wolfspeed, Micron, Intel and more



LOCAL

Ohio welcomes Biden, Intel for \$20 billion groundbreaking



Mark Williams

The Columbus Dispatch

Published 4:04 p.m. ET Sept. 9, 2022

[View Comments](#)



 Wolfspeed



CHIPS Act Overview



- \$52.7 billion appropriated and authorized
- Section 102 authorizes
 - \$39 billion for incentives for US CHIPS Manufacturing
 - \$11 billion for Semiconductor R&D & workforce programs at the Department of Commerce
 - Includes National Advanced Packaging Manufacturing program & Microelectronics Manufacturing Program
- An additional \$200 million is for CHIPS for America Workforce and Education Fund

CHIPS Implementation Strategy



- Released September 6 by Commerce’s National Institute of Standards and Technology
<https://www.nist.gov/system/files/documents/2022/09/13/CHIPS-for-America-Strategy%20%28Sept%206%2C%202022%29.pdf>
- “Objectives go beyond supporting the construction of a few semiconductor manufacturing facilities, or “fabs.” **Over the long term, the CHIPS for America Fund must enable and sustain a vibrant domestic industry that supports quality jobs, a diverse workforce, and a robust supplier base of large and small firms.**
- Advice to Applicants
 - Requires state incentives
 - Leverage collaborations to build out semiconductor ecosystems
 - Expand the workforce pipeline to match increased domestic capacity workforce needs
 - Create inclusive and broadly-shared opportunities for businesses including

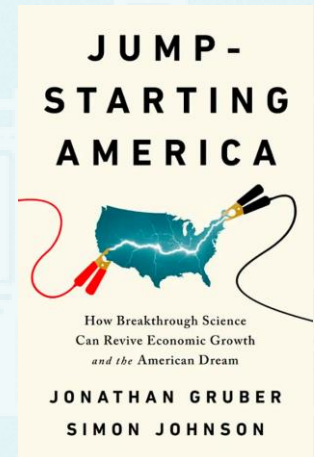
CHIPS Act: Inclusive Innovation



- NIST seeking “measurable benefits to small and underrepresented businesses, including minority-owned, veteran-owned and women-owned businesses, and businesses in rural areas,” through
 - Robust outreach plans
 - Contracting and subcontracting process that encourage participation
 - Using services of MBDA
 - For construction, operation and procurement
- Connecting very well paid jobs in semiconductor manufacturing through partnerships with regional training institutions
 - Average wage is \$170,000 & nearly \$100,000 in production jobs
 - New partnership already announced between NSF & Intel

Regional Tech Hub Program

- \$10 billion program that is the largest ever proposed place based technology economic development model (Section 10621)
- Consortiums focused on technology-led economic development with goals
 - Increased geographic diversity of innovation, and benefit underserved
 - Modernization of manufacturing
 - Domestic job creation
 - Commercialize research



Who can get grants

- Lead entity higher ed, state/local govt, industry, economic development organizations, labor/workforce
- Long list of possible members from national labs to diverse entrepreneurship nonprofits
- Geographic requirements
 - 3 in each EDA region
 - $\frac{1}{3}$ significantly benefit small or rural community
 - $\frac{1}{3}$ in an EPSCoR

Use & Amount of funds

- **Strategy Development Grants:** economic and workforce development planning (90 percent federal) at least 60 grantees
- **Implementation grants (No more than \$150M, first 2 years to at least 20 hubs)**
 - **Workforce development:** broad, industry partnerships to K12
 - **Technology maturation:** tech development, tech transfer, capital access, tech facilities like test beds
 - **Business and entrepreneurial development:** regional approaches including tech commercialization
 - **Related infrastructure**

Equity language

- Final bill adds engaging underrepresented groups as a goal and a criteria for evaluation
- Commerce encouraged to designate hubs in urban areas with large underserved populations and that include HBCUs or MSIs.
- Workforce strategy grants focused on services to those underrepresented in STEM
- Funds can be used to promote employee ownership

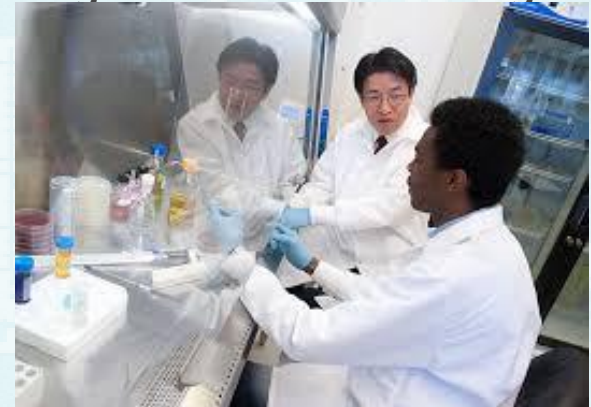


RECOMPETES Pilot Grants

- \$1 billion for 10 year to develop and implement flexible economic development plans
 - Strategy and implementation grants allowed. All grants above \$20 million.
- Infrastructure investments, brownfield redevelopment, workforce development, small business assistance, resources to connect residents to opportunities
- Targeting economically distressed communities with high unemployment rates and/or low household incomes
- Based on HR 4651, [RECOMPETE ACT](#)

New Directorate for the NSF and R&D Funds

- A new \$20 billion National Science Foundation Directorate for Technology and Innovation
 - First ever large scale commitment by NSF to applied research and commercialization
- Sec.10388 authorizes continued support for the Regional Innovation Engines.



Funding for MEPs and Manufacturing USA

- **Section 10211** authorizes nearly \$10 billion for NIST over five years, including 2.3 billion for MEPs. Utilizes incentive grants.
- **Section 10252** amends section 25 of the NIST Act to require MEPs to outreach to underserved communities
- **Section 10262** Manufacturing USA authorized to create up to ten new institute **\$829 million**

Funding for HBCUs and Minority Serving Institutions

- Section 10325 prioritizes NSF investments in emerging research institutions, such as HBCUs, MSIs, and ESPCORs regions
 - **Section 10522** creates Specific \$1.2 billion capacity building program for HBCUs and other MSIs to increase capacity to participate in research & development
 - GAO directed to make recommendations on obstacles to MSI capacity and OSTP directed to make a new policy on specific provisions
- Engage with HBCUs leaders in your state



Maximizing the impact of the CHIPS & Science Act

- Read, learn, educate
- Advocate for appropriations
- Advocate with federal agencies to maximize coordination of programs, i.e. metrics
- Engage in strategic economic development planning and coalition building
- Engage with HBCUs, HSI, Tribal Colleges and AANAPISIs & CBOs focused on diverse entrepreneurship



Read More

Section by Section & Summary:

<https://www.commerce.senate.gov/2022/8/view-the-chips-legislation>

TCF Statement: <https://bit.ly/3Qa8jqL>

ITIF Summary

<https://itif.org/publications/2022/07/29/three-cheers-for-the-chips-and-science-act-of-2022-now-lets-get-back-to-work/>

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