



MEMORANDUM

To: GuidePost Clients
From: GuidePost Strategies
RE: CHIPS Act of 2022
Date: **LAST UPDATED JULY 20, 2022**

On Tuesday evening, the Senate kicked off debate on the CHIPS-Plus bill. Senate Majority Leader Chuck Schumer (D-NY) filed a bipartisan amendment Tuesday night after the Senate voted to proceed on the bill by a margin of 64 (including 16 Republicans) to 34. **The over 1,000-page amendment includes tens of billions for the National Science Foundation (NSF), the Commerce Department (DoC), and the National Institute of Standards and Technology (NIST).** Senator Schumer said that if the bill got 60 or more votes during the Tuesday evening test vote, he would be open to expanding the legislation beyond his original vision of a narrow CHIPS-Plus bill.

Senator Schumer’s amendment ultimately adds a new division to the CHIPS bill, cited in the amendment as **“Division B - Research and Innovation.”** The research and innovation portion includes, among many others, provisions relating to a host of research and development (R&D) programs; appropriations for NIST research; education and workforce development programs; expansion of NIST’s Manufacturing Extension Partnership; and expansion of the interagency Manufacturing USA Program.

Having noted the science provisions added to the bill by Senator Schumer, **this memo provides a legislative summary of the CHIPS Act of 2022** (which per Schumer’s amendment is now cited as Division A of the larger bill).

OVERVIEW: THE CHIPS ACT OF 2022

The CHIPS Act of 2022 (“Act”) would provide appropriations needed to implement the currently authorized programs from the bipartisan CHIPS for America Act, which was part of the fiscal year (FY) 2021 National Defense Authorization Act (NDAA). The CHIPS for America Act authorized DoC, Department of Defense (DoD), and Department of State (DoS) activities to develop onshore domestic manufacturing of semiconductors critical to U.S. competitiveness and national security.

The Act includes safeguards to ensure that recipients of federal funds from these programs cannot build advanced semiconductor production facilities that present a national security concern. In general, the Act appropriates **\$54.2 billion for CHIPS and Public Wireless Supply Chain Innovation** (also known as ORAN). The funds appropriated can be broken down as follows:

- **\$39 billion for DoC manufacturing incentives**, including \$2 billion specifically for mature semiconductors. Within the incentive program, up to \$6 billion may be used for the cost of direct loans and loan guarantees.
- **\$11 billion for DoC R&D**, including funds for a National Semiconductor Technology Center (NSTC), a National Advanced Packaging Manufacturing Program, a Manufacturing USA Semiconductor Institute, and Microelectronics Metrology R&D.

- **\$200 million for a CHIPS for America Workforce and Education Fund** to kickstart development of the domestic semiconductor workforce by leveraging activities of the NSF.
- **\$2 billion for a CHIPS for America Defense Fund** to implement the Microelectronics Commons, a national network for lab-to-fab transition of semiconductor technologies - including DoD-unique applications - and semiconductor workforce training.
- **\$500 million for a CHIPS for America International Technology Security and Innovation Fund** for the DoS, in coordination with the U.S. Agency for International Development (USAID) the Export-Import Bank, and the U.S. International Development Finance Corporation (USIDFC) to support international information and communications technology security and semiconductor supply chain activities.
- **\$1.5 billion for the Public Wireless Supply Chain Innovation Fund** through the National Telecommunications Information Administration (NTIA), in coordination with NIST, the Department of Homeland Security (DHS), and the Director of National Intelligence, among others, to spur movement towards open-architecture, software-based wireless technologies.

THE CHIPS ACT OF 2022: LEGISLATIVE SUMMARY

CHIPS for America Fund: The Act provides for **\$50 billion allocated over five years** for a CHIPS for America Fund, established by Section 102(a)(1) (p. 10) of the Act¹. The funding must be used to implement (1) the DoC semiconductor incentive and (2) R&D and workforce development programs authorized by the FY21 NDAA. Each fiscal year, up to 2% of funds will be made available for salaries and expenses, administration, and oversight, of which \$5 million is available each year for the inspector general.

- *Incentive Program for DoC Manufacturing*. In addition to the provisions outlined in the overview section of this memo, the Act provides **\$19 billion to be allocated in FY22**, including the \$2 billion legacy chip production funding. Thereafter, the Act provides for **\$5 billion for the program each year from FY23 through FY26**.
- *DoC R&D and Workforce Development Programs*. In addition to the provisions outlined in the overview, the Act provides **\$5 billion in FY22** for the programs, specifically:
 - \$2 billion for the NSTC.
 - \$2.5 billion for advanced packaging.
 - \$500 million for other related R&D programs

For use across the NSTC, advanced packaging, and other R&D related programs, the Act provides for:

- \$2 billion in FY23.
- \$1.3 billion in FY24.
- \$1.1 billion in FY25.
- \$1.6 billion in FY26.

Section 102(a)(4)(A) (p. 14) of the Act requires the President to submit to Congress detailed account, program, and project allocations of the full amount made under the CHIPS for America Fund for FYs 2022 and 2023, and for each subsequent FY through 2026 as part of the annual budget submission of the President. The Act also authorizes, under Section 102(a)(4)(B) (p. 14), the Committees on Appropriations of the House and Senate to provide for alternative allocation of

¹ Please note that the sections and page numbers referenced in this memo refer to Senator Schumer's amendment (i.e., the full version of the bill that includes the science provisions).

amounts made available under the CHIPS for America Fund, including by account, program, and project.

In addition to the \$2 billion for the **CHIPS for America Defense Fund**² established by Section 102(b)(1) (p. 16) of the Act, as explained in the overview, the Act also provides \$500 million for the **CHIPS for America International Technology Security and Innovation Fund**³. This funding would be allocated over the course of five years to the DoS, in coordination with USAID, the Export-Import Bank, and the USIDFC. Section 102(c)(1) (p. 19) of the Act provides that the Security and Innovation Fund would support the development and adoption of secure and trusted telecommunications technologies, secure semiconductors, secure semiconductors supply chains, and other emerging technologies.

Furthermore, the Act provides for \$200 million made available over five years for the NSF to promote growth of the semiconductor workforce - *which faces the need to add 90,000 workers by 2025* - for the **CHIPS for America Workforce and Education Fund**⁴, established by Section 102(d)(1) (p. 24) of the Act.

Note also that Section 102(e) (p. 27) of the Act adds the CHIPS for America Fund, CHIPS for America Defense Fund, CHIPS for America International Technology Security and Innovation Fund, CHIPS for America Workforce and Education Fund, Public Wireless Supply Chain Innovation Fund, and Advanced Manufacturing Investment Credit to the exempt programs and activities list under Section 255 of the Balanced Budget and Emergency Deficit Control Act of 1985.

The Act also contains a limitation on the use of amounts for stock buybacks or the payment of dividends. Section 102(g) (p. 29) of the Act prohibits recipients from purchasing an equity security listed on a national securities exchange and from paying dividends or making other capital distributions with respect to the common stock (or equivalent interest). This prohibition applies to the CHIPS for America Fund, CHIPS for America Defense Fund, and CHIPS for America International Technology Security and Innovation Fund, and the CHIPS for America Workforce and Education Fund.

Semiconductor Initiatives: The Act would amend the FY21 NDAA to:

- Clarify the eligibility of upstream suppliers to receive CHIPS funding.
- Ensure coordination of a broad range of semiconductors and the relevance of the technology to supply chain vulnerabilities in the provision of incentives. Specifically, Section 103(b) (p. 48) of the Act requires the Secretary of Commerce to give priority to ensuring that a covered entity receiving financial assistance will:

² Like the provisions for the CHIPS for America Fund, the CHIPS for America Defense Fund's provisions require the President to submit to Congress detailed account, program element, and project allocations of the full amount made under the Defense Fund. This applies to FY 2023 and for each subsequent FY through 2027 as part of the annual budget submission of the President. Additionally, the House and Senate Appropriations Committees are authorized to provide for alternate allocation of amounts made available under the Defense Fund.

³ The budget provisions for the CHIPS for America International Technology Security and Innovation Fund are similar to those for CHIPS for America and Defense Funds. This applies to FY 2023 and for each subsequent FY through 2027 as part of the annual budget submission of the President.

⁴ The budget provisions for the CHIPS for America Workforce and Education Fund are similar to those for the other aforementioned funds. This applies to FY 2023 and for each subsequent FY through 2027 as part of the annual budget submission of the President.

- Manufacture semiconductors necessary to address gaps and vulnerabilities in the domestic supply chain across a diverse range of technology and process nodes; and
- Provide a secure supply of semiconductors necessary for the national security, manufacturing, critical infrastructure, and technology leadership of the United States and other essential elements of the United States.
- Authorize **\$2 billion in additional financial incentives** for manufacturing of mature technology nodes⁵, with priority for critical manufacturing industries (e.g., the automotive industry). Specifically, Section 103(b) (p. 49) requires the Secretary of Commerce to establish an additional program that provides federal financial assistance to covered entities to incentivize investment in facilities and equipment in the United States for the fabrication, assembly, or advanced packaging of semiconductors at mature technology nodes. Section 103(b) (p. 50) further requires the Secretary of Commerce to give priority to covered entities that support the resiliency of semiconductor supply chains for critical manufacturing industries in the United States.

In order for an entity to qualify for this assistance, the entity must (among other things):

- Provide equipment or materials for the fabrication, assembly, testing, or advanced packaging of semiconductors at mature technology nodes in the United States; or
- Fabricate, assembly using advanced packaging, or test semiconductors at mature technology nodes in the United States; and
- Commit to using any federal financial assistance received to increase the production of semiconductors at mature technology nodes.
- Provide the DoC with other transaction authority to enable efficient execution of CHIPS awards, including authorizing the Secretary of Commerce to establish rules, regulations, and procedures as the Secretary considers appropriate.
- Require that construction projects funded under the Act are subject to Section 602 of the [Public Works and Economic Development Act of 1965](#).

Section 103(b) (p. 41) requires the Secretary of Commerce to enter into an agreement with an awardee of federal financial assistance specifying that during the 10-year period beginning on the date of the award, the awardee is prohibited from engaging in any significant transaction involving the material expansion of semiconductor manufacturing capacity in the People's Republic of China or another foreign country of concern. This prohibition does not apply to:

- Facilities or equipment of a covered entity for manufacturing legacy semiconductors; or
- Significant transactions involving the material expansion of semiconductor manufacturing capacity that (1) produces legacy semiconductors; and (2) predominantly serves the market of a foreign country of concern.

Awardees are also required to notify the Secretary of Commerce of any planned significant transactions involving the material expansion of semiconductor manufacturing capacity in the People's Republic of China or any other foreign control of concern. After receipt of a notification, the

⁵ The Act provides that the term "mature technology node" has the meaning given the term by the Secretary of Commerce.

Act directs the Secretary of Commerce, in consultation with the Secretary of Defense and the Director of National Intelligence, to determine whether the significant transaction described in the notification would violate the prohibition described above. The awardee would be given an opportunity to remedy, but the Act ultimately gives the Secretary of Commerce the power to recover the full amount of the contract in the event of a violation that is not ceased or remedied.

Section 103(b) also authorizes the Secretary of Commerce to request from an awardee records and other necessary information to review the compliance of the awardee with the agreement prohibiting significant transactions involving semiconductor manufacturing capacity expansion in China.

To ensure that the restrictions on the use of federal funds for expansion or building of semiconductor manufacturing capacity in countries that present a national security threat remain current with the status of semiconductor technology and with U.S. export control regulation, the Secretary of Commerce in coordination with the Secretary of Defense and the Director of National Intelligence would be required to consider, with industry input, which technology are subject to this prohibition.

Opportunity and Inclusion: Section 104 (p. 61) of the Act would require the DoC to establish activities and assign personnel to ensure that the recipients of CHIPS manufacturing incentives meet their commitments to increase the participation of economically disadvantaged individuals in the semiconductor workforce.

GAO Reporting: The Act would expand the scope of the Government Accountability Office (GAO) report already required under the FY21 NDAA to include, among other things, an evaluation of potential government steps to avoid semiconductor shortages. Specifically, Section 105(a) (p. 64) of the Act requires the GAO report to include:

- Demand-side incentives, including incentives related to the information and communications technology supply chain;
- Additional incentives, at national and global scales, to accelerate utilization of leading-edge semiconductor nodes to address shortages in mature semiconductor nodes; and
- How projects are supporting the semiconductor needs of critical infrastructure industries in the United States, including those industries designated by the Cybersecurity and Infrastructure Security Agency (CISA) as essential infrastructure industries.

Advanced Manufacturing Investment Credit: After providing for the appropriations for Wireless Supply Chain Innovation (Section 106 (p. 67) of the Act) outlined in the overview, the Act (in Section 107 (p. 71)) provides for a 25% investment tax credit for investments in semiconductor manufacturing. This would include incentives for the manufacturing of semiconductors, as well as for the manufacturing of the specialized tooling equipment required in the semiconductor manufacturing process. Additionally:

- Taxpayers may elect to treat the credit as a payment against tax (i.e., direct pay).
- The credit is provided for property which is placed in service after December 31, 2022 and for which construction begins before January 1, 2027.