

CHIPS and Science Act of 2022

On August 9th, the CHIPS and Science Act of 2022 was signed into law to support and incentivize semiconductor chip manufacturing in the United States. The new law appropriates over \$200 billion to reinvigorate domestic production, protect vital supply chains, and lower costs for consumers. The law also contains provisions to discourage foreign outsourcing, promote research and development, and boost workforce development and STEM education.

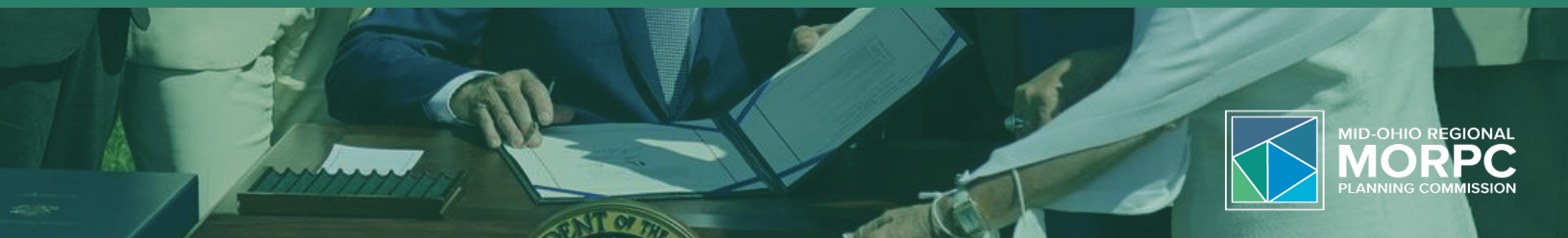
Key Provisions of Interest

Domestic Manufacturing Incentives

The CHIPS and Science Act of 2022 allocates \$39 billion for Department of Commerce incentive programs to onshore semiconductor chip production. These primarily include funds to build, expand, or modernize domestic manufacturing and R&D operations. The new law also authorizes a 25% investment tax credit for investments in semiconductor chip manufacturing, including facility construction and equipment purchases.

Department of Commerce Technology Hubs

\$10 billion has been allocated for the Department of Commerce to create regional technology hubs. 20 hubs will be geographically distributed across the country, presenting a great opportunity for Ohio to further build on its growing tech economy. An additional \$1 billion will be dedicated to creating the RECOMPLETE Pilot Program to support distressed communities with economic development activities.



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STEM Education Expansion and Workforce Development

The Department of Commerce's new CHIPS for America Fund will receive \$11 billion for workforce development and R&D programming. The separate CHIPS for America Defense Fund will receive \$2 billion to establish the Microelectronics Commons – a national network for semiconductor tech R&D and workforce training. The CHIPS for America Workforce and Education Fund will receive an additional \$200 million exclusively for workforce development in collaboration with The National Science Foundation. The National Science Foundation will also receive \$13 billion to expand STEM education programs and will put an emphasis on growing opportunities for rural schools. The National Institute of Standards and Technology will also be receiving \$829 million to create new manufacturing research institutes for education and workforce development purposes.

National Security and Supply Chain Investments

The new law creates three separate funds for national security purposes: the CHIPS for America Defense Fund, International Technology Security and Innovation Fund, and Public Wireless Supply Chain Innovation Fund. The Defense Fund includes \$2 billion for the aforementioned Microelectronics Commons, which will be utilized for defense applications. The International Security and Innovation Fund was awarded \$500 million to support international tech security and semiconductor supply chains, as well as to develop new telecommunications technologies. The Public Wireless Supply Chain Innovation Fund will utilize \$1.5 billion to propel development of wireless and mobile broadband technology across several agencies. The law also includes \$131 million for the National Institute of Standards and Technology to create a National Supply Chain Database to minimize supply chain disruptions.

Department of Energy Innovation Programs

The Department of Energy has been afforded \$17.6 billion to fund science and innovation programs, including university-based nuclear research, R&D for low-emissions steel manufacturing, and “Fission for the Future” which supports deployment of nuclear reactors in coal plant communities. Further, the Department of Energy's Office of Science will receive \$50.3 billion to develop science workforce development programs and for further research.

National Science Foundation Funding

The National Science Foundation will receive \$81 billion, including \$13 billion to expand STEM education and \$20 billion for development of new technologies, including artificial intelligence, quantum computing, advanced manufacturing, 6G telecommunications, energy, and material science.