

Overview of Senate Competition Bill & White House Supply Chain Report

14 June 2021



Building a better working world

Efforts to boost US competitiveness through innovation and R&D and to improve supply chain independence are at an inflection point, with Senate passage 68-32 of the United States Innovation and Competition Act of 2021 (S. 1260) on emerging technologies and release of a White House report on “Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth,” both on June 8. Lawmakers are responding to top-down, state-funded technology incentives by other nations, and the vulnerabilities of the US supply chain exposed by the pandemic.

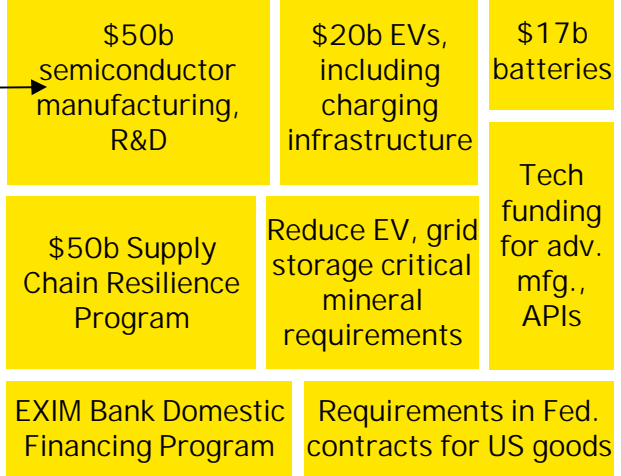
The USICA has a ways to go before being enacted. The House will act on the issue and the two chambers must reconcile different bills. “The legislation is likely to face stiffer headwinds in the House, where top lawmakers have expressed skepticism about its focus on bolstering emerging technologies. That debate played out in the Senate, which ultimately watered down the original ambition of the bill to accommodate those objections,” the New York Times reported. The House Science Committee June 15 marks up the National Science Foundation for the Future Act (H.R. 2225), focused on financing research in climate change and cybersecurity.

United States Innovation and Competition Act

\$190b - strengthen domestic technology markets to better compete globally:

- Made in America Office to prioritize federal procurement of materials made in US
- NSF technology directorate
- \$39b international affairs programs

\$52b - strengthen capacity to make semiconductors, microchips, telecom tech



Chairman Eddie Bernice Johnson (D-TX) has expressed concerns about the NSF approach in the Senate bill, but said that a compromise could be reached in a House-Senate conference.

The competition bill could be a vehicle for some of the priorities listed in the Biden administration supply chain report, which is focused on semiconductor chips, EV batteries, pharmaceuticals and rare earth minerals. It says “private sector and public policy prioritization of low-cost labor, just-in-time production, consolidation, and private sector focus on short-term returns over long-term investment have hollowed out the U.S. industrial base, siphoned innovation from the United States...”

The Biden American Jobs Plan calls for significant investment in R&D and the NSF, meaning some provisions could accompany infrastructure legislation. The White House report calls on Congress to pass new and expanded incentives for EVs, and EV tax incentives are in a Senate Finance Committee energy bill. Also on tax, there is broad interest in staving off the TCJA Section 174 requirement that R&D expenses be amortized over 5 years, which takes effect in 2022.

Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth

United States Innovation and Competition Act

The USICA would spend \$250 billion to increase U.S. competitiveness with China and reduce reliance on Chinese products in key technologies. The bill would provide \$52 billion to fund semiconductor research, design and manufacturing initiatives, while spending hundreds of billions more on U.S. scientific research & development, grant programs, strengthening supply chains and efforts to build agreements between research universities and the private sector.

The bill began in the Senate as the Endless Frontier Act, sponsored by Majority Leader Chuck Schumer (D-NY) and Todd Young (R-IN); on the Senate floor it was subsequently enlarged and renamed by a manager's amendment from Schumer that gathered dozens of additional provisions. On the Senate floor June 8, Sen. Schumer said, "Passing this bill... is the moment when the Senate lays the foundation for another century of American leadership... I believe that this legislation will enable the United States to out-innovate, out-produce, and out-compete the world in the industries of the future."

Semiconductor Programs. The bill's Division A allocates \$49.5 billion over five years for a CHIPS for America Fund, to implement the Commerce Department's semiconductor incentive and research & development programs authorized by sections 9902 and 9906 of the FY21 National Defense Authorization Act (NDAA). The bill also appropriates \$10.5 billion over five years to implement programs authorized in NDAA section 9906, including the National Semiconductor Technology Center (NSTC), the National Advanced Packaging Manufacturing Program and other R&D programs. The bill also allocates:

- \$2 billion over five years for a CHIPS for America Defense Fund, which would support U.S. defense and intelligence needs by boosting R&D, testing and evaluation, workforce development and other activities in coordination with the private sector, universities and other federal agencies.
- \$500 million over five years for a CHIPS for America International Technology Security and Innovation Fund, which would work with foreign government partners to support developing and adopting secure telecom technologies and semiconductor supply chain activities.

Other provisions in the *Endless Frontier Act* (USICA's Division B) would:

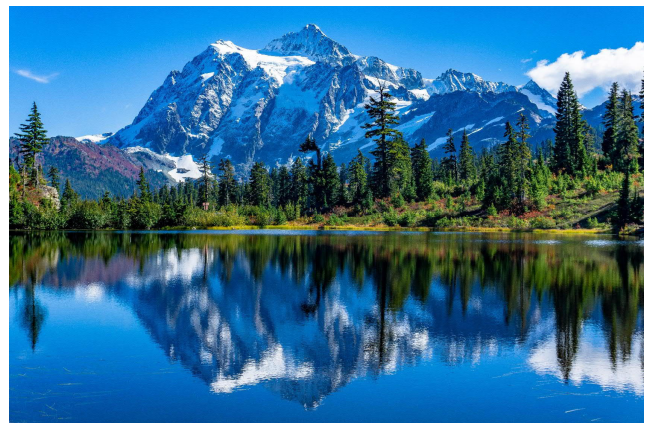
- Create a new Directorate of Technology and Innovation at the National Science Foundation (NSF), funded with \$29 billion over five years, to support research and technology development in key technology focus areas such as artificial intelligence and quantum science.
- Appropriate \$52 billion through fiscal year 2026 for NSF research and development programs
- Allocate \$10 billion for a regional technology hub

program at the Commerce Department.

- Quadruple the budget for the Commerce Department's Manufacturing Extension Partnership (\$2.4 billion), and \$1.2 billion for the Manufacturing USA program.
- Establish a supply chain resiliency program at the Commerce Department to identify and recommend ways to address supply chain vulnerabilities in the U.S. and partner countries.
- Provide \$2 billion in incentives for domestic production of mature ("legacy") semiconductor technologies, including for the auto industry, aircraft and military technology.
- Extend Davis-Bacon Act language (requiring companies to pay their workers prevailing wages) to entities that receive funding under the CHIPS Act.

Other Provisions. The manager's amendment offered by Schumer on May 18 gathered provisions offered by a number of committees and individual senators that expanded the bill's size up to 1,445 pages. The second half of the bill's Division A, the *USA Telecommunications Act*, provides \$1.5 billion for a Commerce Department's Public Wireless Supply Chain Innovation Fund (created by the FY21 National Defense Authorization Act) to boost "5G open RAN," a platform for building out networks with vendor-neutral hardware that serves as an alternative to Chinese 5G telecom equipment (as outlined in S. 1563).

Division C of the bill, as expanded by the manager's amendment, is the *Strategic Competition Act* (S. 1169), approved by the Senate Foreign Relations Committee on April 21. It includes measures to counter intellectual property violations and calls for a diplomatic boycott of the 2022 Winter Olympics in Beijing. This section also includes sanctions for China's reported abuses in Xinjiang province, including forced labor, forced abortion and sterilization, as well as "measures to stand with the people of Hong Kong, Tibet and China's civil society," according to the staff summary.



United States Innovation and Competition Act (continued)

USICA’s Division D, drafted by the Homeland Security Committee, would expand “Buy American” requirements, impose rules on the federal procurement and use of artificial intelligence, and block the purchase of drones manufactured and sold by companies backed by the Chinese government. Title I of USICA’s Division F would expand federal support for STEM initiatives in higher education. Title II of Division F, from the Judiciary Committee, would modify pre-merger notification fees paid to the Federal Trade Commission while indexing the amounts for inflation, raising an estimated \$135 million.

Economic Sanctions. The bill’s Division E, drafted by the Banking Committee, would require the president to identify and impose sanctions on foreign individuals or entities that knowingly support Chinese government efforts to steal U.S. trade secrets or undermine the cybersecurity of democratic institutions. The president would have to provide a list of sanctioned parties within 180 days of enactment and annually thereafter. The president would have to impose at least five sanctions on entities, potentially including: directing the Ex-Im Bank not to issue credit or loan guarantees; including them on the Commerce Department’s entity list for theft of trade secrets; prohibiting U.S. banks from providing more than \$10 million in loans or credit in a 12-month period; and barring federal agencies from procuring their goods and services. Provisions in this section would also establish a joint interagency task force to investigate allegations of market manipulation and urge firms to adopt a corporate code of conduct for operating in China.

House Approach

Instead of simply considering S. 1260, House committees appear likely to produce their own version of a bill similar to USICA and take that measure to a conference with the Senate. House Science Committee Chairwoman Johnson and Ranking Member Frank Lucas’ (R-OK) National Science Foundation for the Future Act:

- Supports research to improve understanding and predictability of the climate system and climate-change risk, resilience, and mitigation and to educate and train climate researchers
- Supports research related to violence
- Supports research related to the food-energy-water system
- Establishes a program to support research related to sustainable chemistry
- Funds a new Directorate for Science and Engineering Solutions
- Provides specific allocations for a Graduate Research Fellowship Program and other programs; Mid-Scale Research Infrastructure Program; Robert Noyce Teacher Scholarship Program; NSF Research Traineeship Program; and CyberCorps Scholarship for Service Program
- Supports STEM education, workforce training, and scholarships

House Foreign Affairs Committee Chair Gregory Meeks (D-NY) has also introduced the Ensuring American Global Leadership and Engagement Act (EAGLE Act), whose provisions could be merged into the Johnson-Lucas bill.

Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth

The White House report detailing its recommendations follows a 100-day review of supply chain issues, which was pursuant to President Biden’s February 24 Executive Order 14017 directing a “whole-of-government” approach to strengthening the resilience of critical US supply chains. The White House is also conducting a broader study of supply chain resiliency issues, expected to take one year, focusing on six sectors: the defense; public health; information and communications technology; energy; transportation; and agricultural.

The 100-Day Report includes a wide range of recommendations, including establishing a White House Supply Chain Disruptions Task Force as well as establishing a public-private consortium for advanced manufacturing and onshoring of domestic essential medicines production. In addition, the report calls for the establishment of a USTR-led “Trade Strike Force” to combat foreign trade practices resulting in supply chain disruptions to the US economy. The recommendations are summarized in the following table.

Rebuilding production and innovation capabilities
<i>Enact new federal legislation that will strengthen critical supply chains and rebuild our industrial base—including transformative investments within the American Jobs Plan</i>
Congress should support at least \$50 billion in investments to advance domestic manufacturing of leading edge semiconductors and R&D
Congress should approve \$5 billion to electrify the federal fleet with U.S.-made EVs and \$15 billion in infrastructure investment to build a national charging infrastructure to facilitate the nationwide adoption of EVs
Congress should establish new incentives to support battery cell and pack manufacturing, perhaps through DoE’s Advanced Technology Vehicles Manufacturing Loan Program, which has approximately \$17 billion in loan authority

Congress should enact the proposed Supply Chain Resilience Program at the Department of Commerce
Establish Defense Production Act (DPA) to expand production capacity in critical industries
<i>Increase public investments in R&D and commercialization of key products</i>
DoE should support technologies that will reduce the critical mineral requirements of next-generation electric vehicle and grid storage technologies
HHS and other agencies should increase their funding of advanced manufacturing technologies to advance continuous manufacturing and the biomanufacturing of APIs
<i>Use immediate administrative authorities to support an ecosystem of producers and innovators including SMEs and skilled workers</i>
Work with industry and labor to create pathways to quality jobs, with a free and fair choice to join a union, through sector-based community college partnerships, apprenticeships and on-the-job training
SBA should support the diversification of critical suppliers
The Export-Import Bank (EXIM) should develop a proposal on whether and how to implement a new Domestic Financing Program to support the establishment and/or expansion of US manufacturing facilities and infrastructure projects in the United States that would support US exports
Support the development of markets that invest in workers, value sustainability, and drive quality
Government, working with private sector and non-governmental stakeholders, encourage the development and adoption of comprehensive sustainability standards for essential minerals
Working group to identify sites where critical minerals could be produced in the US
HHS should develop and make recommendations to Congress on providing the department with new authorities to track production by facility, track API sourcing, and require API and finished dosage form sources can be identified on labeling for all pharmaceuticals sold in the United States
Leverage the government's role as a purchaser of and investor in critical goods
Establish a list of designated critical products to receive additional preferences under the Buy American Act and FAR Council regulations to ensure federal government procures US-made critical products
Update manufacturing requirements in federal grants, cooperative agreements and R&D contracts to ensure that taxpayer funded R&D leads to products made in the United States
Industries that have faced shortages of critical goods should evaluate mechanisms to strengthen corporate stockpiles of select critical products to ensure greater resilience in times of disruption
Tax credits, lending and grants offered to businesses to produce batteries domestically should, to the extent permitted by law, ensure the creation of quality jobs with the free and fair choice to organize and bargain collectively for workers, and new appropriations should include prevailing wage requirements
Strengthen international trade rules, including trade enforcement mechanism
Establish a USTR-led trade strike force to identify unfair foreign trade practices that have eroded US critical supply chains and to recommend trade actions to address such practices
Commerce should evaluate whether to initiate an investigation into neodymium permanent magnets
Work with allies and partners to decrease vulnerabilities in the global supply chains
Expanding multilateral diplomatic engagement on supply chain vulnerabilities, including with the G7
The U.S. Development Finance Corporation (DFC) should increase capacity for investments in projects that will expand production capability for critical products, including critical minerals
Monitor near term supply chain disruptions as the economy reopens from the COVID-19 pandemic
Establish a new Supply Chain Disruptions Task Force that will provide an all-of-government response to address near-term supply chain challenges to the economic recovery
Commerce should lead a coordinated effort to bring together data from across the federal government to improve its ability to track supply and demand disruptions and improve information sharing between federal agencies and the private sector to more effectively identify near-term risks and vulnerabilities



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