

## Congressional Update: U.S. Innovation and Competition Act Passes Senate

*Lewis-Burke Associates LLC – June 10, 2021*

On June 8, the Senate took a major step to advance the *Endless Frontier Act*, passing it as part of a giant package of innovation, trade, and research security legislation called the *U.S. Innovation and Competition Act (USICA)*. The bipartisan vote of 68-32 indicated strong support for investment in research and technology development as key planks for enhanced competitiveness and economic development. The core of the legislation was not changed during Senate consideration. *EFA* would prioritize ten key technology focus areas such as artificial intelligence, advanced computing, resilience, advanced communications, wireless research, energy innovation, and biotechnology. It would authorize \$81 billion in funding over five years for the National Science Foundation (NSF), dramatically expand the EPSCoR program and create other capacity building programs to diversify the recipients of NSF funding, and create a new Technology and Innovation Directorate that would fund research in the key technology areas, University Technology Centers, research testbeds, workforce development, and commercialization efforts. The Department of Energy Office of Science would also be authorized for \$16.9 billion in funding towards the same focus areas. Additionally, new Regional Technology Hubs would be created at the Department of Commerce (DOC), and a raft of other provisions would impact NSF, DOC, and the National Aeronautics and Space Administration (NASA).

In addition to *EFA*, *USICA* combines provisions from several Senate committees, including Foreign Relations; Homeland Security and Governmental Affairs; Finance; Banking; Judiciary; and Health, Education, Labor, and Pensions. There are numerous provisions of relevance, including those that would:

- Provide \$50 billion in emergency appropriations for the previously passed *CHIPS for America Act* to fund semiconductor research, development, and manufacturing;
- Give new authorities for the State Department to restrict visa access for certain international students, post-docs, or faculty with ties to foreign military institutions;
- Reduce the Section 117 reporting threshold for foreign gifts to \$50,000 from the current \$250,000;
- Authorize agency activities in bioengineering and engineering biology and create a new National Engineering Biology Research and Development Initiative;
- Require universities to provide copies of contracts and agreements with Chinese entities to NSF;
- Establish a Research Security and Policy Office at NSF responsible for coordinating all research security policy issues;
- Restrict the involvement of personnel in foreign talent recruitment programs;
- Creates a new requirement that would require institutions of higher education maintain a searchable database of gifts and contracts received by faculty from foreign sources.
- Set new open access requirements for scholarly publications resulting from federally-funded research;
- Give the Office of Management and Budget (OMB) new authority to oversee interagency research security coordination;
- Create a new state grant at the Department of Education to expand k-12 computer science education;
- Direct NSF and DOC to improve STEM education in rural communities;

- Direct the Committee on Foreign Investment in the United States (CFIUS) to develop a process for vetting large foreign gifts (over \$1 million) to institutions of higher education and another provision that would block CFIUS from taking on this expanded mission;
- Create an international Technology Partnership Office at the Department of State;
- Reauthorize currently funded Department of Education Title VI international education programs; and
- Create a new Department of Education program to expand state support for dual course enrollment for high school students, strengthen articulation agreements among 2-year and 4-year institutions, and other measures to boost postsecondary STEM pathways.

Over six hundred amendments were offered over two-plus weeks of floor consideration. Of these, only a handful received a vote and most of those that did were defeated. Of note, the Senate rejected amendments that would have rolled back American Rescue Plan funding, added onerous new intelligence agency screening requirements of US researchers, banned fetal tissue research, required institutions to make new free speech certifications, and banned research on human-animal chimeras. Two amendments of interest were approved, one that would create a Department of Energy Foundation called the Foundation for Energy Security and Innovation and another that would add \$3.5 billion in annual authorized funding for the Defense Advanced Research Projects Agency (DARPA) from fiscal year (FY) 2022 to FY 2026.

Forty-two bipartisan amendments covering a wide range of topics were rolled into a Manager's Package that failed to achieve unanimous consent and these amendments were not incorporated into the Senate-passed bill. However, the Senate is likely to try to add them in conference. Of relevance, these included provisions to enable use of Pell grant funding for short-term workforce training programs, add further restrictions on federal funding for institutions hosting a Confucius Institute, create a critical mineral mining and recycling research program at DOE, create a Department of Homeland Security (DHS) grant program on US-Israel cybersecurity cooperation, set aside \$174 million of the authorized NSF funding for radio astronomy upgrades, create a new NSF program to help R2 Historically Black Colleges and Universities (HBCUs) achieve R1 status, make patent changes, and create an interagency working group on the telecommunications industry workforce.

The legislation now heads to the House of Representatives, which is aiming to produce its own package of competitiveness legislation to be voted on as individual bills through July. The furthest along of these bills are the *NSF for the Future Act* and *Department of Energy Science for the Future Act*, which will both be considered by the full House Science, Space, and Technology Committee on June 15 with full House consideration shortly thereafter. House leadership has charged all committees of relevance to produce additional competitiveness legislation or counterparts to *USICA* provisions. These bills are expected to be a mix of partisan and bipartisan legislation depending on the committee. The House and Senate are likely to use an informal conference negotiation to produce a final package merging *USICA* and relevant House-passed bills. This final package could be passed on its own or ride major must-pass legislation like the surface transportation bill in September.

Issues for the potential conference to resolve will likely include research security provisions, balance between a new NSF directorate and funding for NSF base programs, NASA human space flight and exploration provisions, trade issues, and Senate provisions to dramatically enhance the size of the EPSCoR program. While these issues may be challenging to resolve, the bipartisan vote in the Senate indicates strong support for policies to majorly boost authorized US investment in innovation and

competitiveness and create a new directorate at NSF that would focus on use-inspired research and technology translation.

*Sources and Additional Information:*

- A pre-amended section-by-section summary of the *U.S. Innovation and Competition Act* can be found at <https://www.democrats.senate.gov/imo/media/doc/USICA%20Summary%205.18.21.pdf> and the pre-amended text of the legislation can be found at <https://www.democrats.senate.gov/imo/media/doc/DAV21A48.pdf>. Final text has not yet been released.
- A press release on the *DOE Science for the Future Act* and link to the full bill text can be found at <https://science.house.gov/news/press-releases/committee-leaders-to-introduce-bipartisan-department-of-energy-science-for-the-future-act>.
- Lewis-Burke's previous summary of committee action on *EFA and NSF for the Future* can be found at [https://old.lewis-burke.com/sites/default/files/nsf\\_policy\\_and\\_competitiveness\\_bills\\_advance\\_in\\_the\\_house\\_and\\_senate\\_-\\_may\\_2021.pdf](https://old.lewis-burke.com/sites/default/files/nsf_policy_and_competitiveness_bills_advance_in_the_house_and_senate_-_may_2021.pdf)
- Lewis-Burke's previous summary of the introduced version of *EFA* can be found at [https://old.lewis-burke.com/sites/default/files/congressional\\_update\\_-\\_endless\\_frontier\\_act\\_-\\_april\\_2021.pdf](https://old.lewis-burke.com/sites/default/files/congressional_update_-_endless_frontier_act_-_april_2021.pdf).