



The American Innovation and Competitiveness Act (S.3084)

Prepared by: Kuna Tavalin (ktavalin@wpllc.net)

December 21, 2016

Overview

On Friday, December 16, 2016, [S. 3084, the American Innovation and Competitiveness Act \(AICA\)](#), was sent to the White House after passage by the Senate and the House. The bipartisan bill, cosponsored by Senators Cory Gardner (R-CO) and Gary Peters (D-MI), would maximize basic research by reducing administrative burdens for researchers, enhance agency oversight, improve research dissemination, and reform federal science agencies to increase the impact of taxpayer-funded research. The bill most directly affects programs within the National Science Foundation (NSF), National Institute of Standards and Technology (NIST), and the White House Office of Science and Technology Policy (OSTP). It should be noted that the bill does not contain authorized funding levels for NSF or NIST. The original Senate bill called for a 4% boost for NSF and NIST in 2018. However, in order to ensure that the measure was passed by the House, the final bill remains silent on spending.

Markup Process

During the markup process in the Senate Commerce Committee in June, several amendments from both Republicans and Democrats were adopted in relation to STEM education. Senator Amy Klobuchar (D-MN) filed amendments to ensure both increased access for organizations representing women and minorities in STEM fields and the inclusion of factors specifically impacting the retention women and minority teachers. Senator Maria Cantwell (D-WA) filed an amendment requiring the National Science Foundation to submit a report to Congress on broadening STEM participation for underrepresented groups, such as rural and tribal populations. Additionally, Senator Steve Daines (R-MT) brought forth an amendment to provide additional opportunities for teacher fellowships and mentoring grants in the field of computer science.

Key Undergraduate Research Provision

CUR has spent a considerable amount of time forging relationships with Members of the Senate and educating them on the importance of undergraduate research. From that effort, Senators Gardner and Peters approached CUR for their input on AICA. The result was a section of the bill, Section 309, Improving Undergraduate STEM Experiences. The section seeks to improve Federal investment in undergraduate research opportunities in order to improve STEM retention and grow the STEM workforce. The full text of the section is below:

SEC. 309. IMPROVING UNDERGRADUATE STEM EXPERIENCES.

(a) SENSE OF CONGRESS.—It is the sense of Congress that each Federal science agency should invest in and expand research opportunities for undergraduate students attending

institutions of higher education during the undergraduate students' first 2 academic years of postsecondary education.

(b) IDENTIFICATION OF RESEARCH PROGRAMS.—Not later than 1 year after the date of enactment of this Act, the head of each Federal agency shall submit to the President recommendations regarding how the agency could best fulfill the goals described in subsection (a).

Conclusion

Overall, the version of the bill that is making its way to the President's desk has been seen favorably by the scientific and education community – aided by the fact that the Senate version largely prevailed when legislators from both chambers sat down to resolve their differences. The House version of the bill, which passed in early 2015, contained controversial language outlining that the primary rationale for every NSF grant needed to be directed at serving “the national interest.” Many scientists interpreted that language to mean NSF should tilt toward funding applied research with obvious payoffs. After forging a compromise, the final text strongly endorses the two criteria NSF now uses to judge its grant applicants—the “intellectual merit” of the idea, and the “broader impacts” of the research on society. The “national interest” factors – increasing economic competitiveness, advancing the health and welfare of the public, training a globally competitive workforce, strengthening national security, and enhancing partnerships between academia and industry – are still important, but they are now listed as examples of how researchers can satisfy NSF's second criterion—broader impacts—rather than as the primary rationale for the proposed research. The bill is expected to be signed by President Obama in his final days in office.