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 The Johns Hopkins University
 Massachusetts Institute of Technology
 McGill University
 Michigan State University
 New York University
 Northwestern University
 The Ohio State University
 The Pennsylvania State University
 Princeton University
 Purdue University
 Rice University
 Rutgers University – New Brunswick
 Stanford University
 Stony Brook University –
 State University of New York
 Texas A&M University
 Tufts University
 Tulane University
 University at Buffalo –
 State University of New York
 The University of Arizona
 University of California, Berkeley
 University of California, Davis
 University of California, Irvine
 University of California, Los Angeles
 University of California, San Diego
 University of California, Santa Barbara
 University of California, Santa Cruz
 The University of Chicago
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 University of Illinois, Urbana-Champaign
 The University of Iowa
 The University of Kansas
 University of Maryland, College Park
 University of Michigan
 University of Minnesota, Twin Cities
 University of Missouri, Columbia
 The University of North Carolina at
 Chapel Hill
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 The University of Texas at Austin
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 University of Virginia
 University of Washington
 The University of Wisconsin - Madison
 Vanderbilt University
 Washington University in St. Louis
 Yale University

August 19, 2021

The Honorable Nancy Pelosi
 Speaker of the House
 U.S. House of Representatives
 Room H-305, The Capitol
 Washington, DC 20510

The Honorable Kevin McCarthy
 Minority Leader
 U.S. House of Representatives
 Room H-204, The Capitol
 Washington, DC 20515

The Honorable Chuck Schumer
 Majority Leader
 United States Senate
 S-221, The U.S. Capitol
 Washington, DC 20515

The Honorable Mitch McConnell
 Minority Leader
 United States Senate
 317 Russell Senate Office Building
 Washington, DC 20510

Dear Leaders Schumer, McConnell, Pelosi, and McCarthy,

I write on behalf of America’s leading research universities to express thanks and support for, but also some significant concerns regarding, several key provisions that Congress is discussing as part of the conference process for S. 1260, the U.S. Innovation and Competition Act (USICA); H.R. 2225, the National Science Foundation for the Future Act; H.R. 3593, the Department of Energy Science for the Future Act; and other related science authorization measures. Our views focus, broadly, on two areas:

- Supporting measures that authorize additional funding and new initiatives for crucial science agencies (including a new NSF directorate focused on translating scientific discoveries to the marketplace and parallel roles for the DOE Office of Science), but ensuring that these new authorizations receive sufficient appropriations to support them.
- A strong commitment to protecting research security while maintaining the core values behind America’s scientific leadership, including openness, transparency, integrity, honesty, equity, fair competition, objectivity, and democratic values coupled with significant concerns that some of the science-and-security provisions under discussion would actually be counterproductive, duplicative, or add onerous and unnecessary regulatory burdens.

Our views are laid out in more specific detail below. We appreciate your hard work to pass these important measures and we strongly encourage continued bipartisan efforts to bolster our nation’s future global research, innovation, and economic leadership.

Key Outcomes

Provide Robust Authorizations and Appropriations: We strongly encourage that conference negotiations focus on the NSF and DOE Office of Science with the primary goals of ensuring robust authorizations for both agencies and equipping NSF to create a new directorate. We support strong five-year funding authorization levels for NSF, DOE Office of Science, as well as NIST. Authorized funding levels should provide sustained and robust growth for both

existing and new programs. We specifically appreciate and support the NSF for the Future Act proposed authorization levels, which in the first year will infuse a large increase to NSF to rebase the agency given the increased funding levels required to support the newly proposed NSF Directorate while still providing additional funds for the base NSF programs. In the following years, the proposed funding would ensure sustained, strong, and predictable increases at levels that would help the NSF to better support highly rated research proposals. NSF Director Sethuraman Panchanathan has expressed to stakeholders, including Congress, that there is a compelling and immediate need to expand the size and duration of NSF grants. The funding levels authorized in the NSF for the Future Act would allow for this.

Congress has a responsibility to ensure that all the new activities authorized by these bills are accompanied by sufficient funding. To ensure that the vision behind the new proposals in the legislation can be realized and that core research activities remain strong, additional funding is critical. Recent history has demonstrated that providing appropriations to meet ambitious authorization levels is difficult, even with bipartisan support and awareness of the importance of such investments to advancing U.S. science and bolstering our nation's competitiveness. Without new investments, the agencies will struggle to achieve any of these meritorious activities, and existing STEM research and education programs may be harmed. Neither the Senate-passed bipartisan infrastructure bill nor the FY22 appropriations bills moving through Congress includes research investments consistent with authorization levels outlined in the bills you are conferencing. We urge the inclusion of actual funding in the final legislation or through an agreement to include funding in the appropriations bills or the reconciliation bill also currently under consideration.

Establish a New NSF Directorate: We support the creation of a new directorate at NSF that funds new and innovative research activities focused on translational and use-inspired basic research. The new directorate should be provided the necessary authority to accomplish its goals, including hiring flexibility, the ability to transfer funds to other parts of the agency, and to move existing programs into the new directorate structure. Within the new directorate, we support the proposals for university-led collaborations designed to accomplish the goals of the new directorate. These centers or institutes will be capable of advancing innovation through a variety of mechanisms. As currently drafted, the Senate bill requires a non-federal contribution for University Technology Center awards that may be impossible to achieve in some situations. While cost-sharing is appropriate for such centers and should be encouraged, we do not think it should be a requirement or a consideration in the merit review process. We urge congressional negotiators to authorize university-led coalitions that are not overly prescriptive but encourage partnerships across institutions and other stakeholders.

AAU also supports additional funding to enable the Department of Energy's participation in these important new activities. Given DOE's existing leadership in key industries of the future including quantum information science and artificial intelligence, coordination and partnership with DOE is essential to avoid duplication and ensure the success of these initiatives.

Research Security Provisions

AAU member universities take seriously national security threats posed by international actors and we have been supportive of several pieces of legislation that Congress has recently enacted to strengthen research security.¹ AAU and our member institutions have been working closely with federal research

¹ These include the [Securing American Science and Technology Act \(SASTA\)](#) and encouraging the inclusion of this language in Section 1746 of the FY 2020 National Defense Authorization Act ([P.L. 116-92](#)). The White House Office of Science and Technology JCORE Research Security Subcommittee's work created by the enactment of this legislation resulted in the issuance of the January 2021 [Presidential Memorandum on United States Government-Supported Research and Development National Security Policy \(NSPM-33\)](#) and the White House OSTP/NSTC report

and security agencies to revamp campus policies and to better educate faculty and staff about the threats posed by foreign entities. Consequently, we were discouraged to see the volume of new research security provisions proposed and included in the Senate bill, which would only make it harder for our institutions to address security threats.

We do not address every research security provision included in the pending bills. Generally, we support the House and Senate refining the various proposals to ensure that research security provisions are not duplicative or overly broad, do not impede valuable international scientific collaborations, use a risk-based approach to ensuring research security, and do not impose requirements that significantly increase administrative burden and impede the very types of research and innovation these bills are seeking to ensure U.S. competitiveness.

We are most concerned with two provisions:

- **CFIUS review of certain foreign gifts and contracts with institutions of higher education (Section 3138 of S. 1260)** – We strongly oppose this provision, which would expand the CFIUS review to include certain gifts and contracts between universities and foreign persons. CFIUS was created to prevent ongoing foreign control of U.S. corporations. With regard to U.S. universities, it is not clear what a CFIUS review of gifts and contracts would be designed to counter or how proper review would be determined when applied to university gifts and contracts. Application of CFIUS to university gifts and contracts will likely discourage a wide range of gifts and contracts that have not been shown to be a significant threat to the U.S. – gifts and contracts that often help U.S. science advance in an increasingly competitive environment.
- **New requirements in Section 124 of the Higher Education Act (HEA) on “institutional policy regarding foreign gifts and contracts to faculty and staff” (contained in Section 6124 of S. 1260)** – We strongly oppose the creation of a new HEA Section 124 reporting requirement which would mandate universities to collect and publicly display any gift or contract faculty or staff may make with a foreign source. This is an onerous requirement and would sacrifice the privacy rights of university faculty and staff. This provision would require faculty to report *all* gifts and contracts from a foreign source – with no minimum threshold – and require universities to create a searchable, public database of this information. This provision would perpetuate a perception that common joint activities with our foreign partners are dangerous, and we believe this would discourage some U.S. researchers from participating with international collaborators, even those in countries such as Canada and the United Kingdom. This provision has nothing to do with actual risk and will result in the reporting of massive amounts of inconsequential data, while doing little to address the fundamental concerns regarding foreign influence.

We also oppose the following provisions:

- **Sensitive or controlled information and background screenings (Section 2308 in S. 1260)** – AAU opposes section 2308 in S. 1260, which would task NSF with creating a plan with respect to sensitive or controlled information and background screenings. This should not be a responsibility for NSF or other federal research agencies and should be left to the Department of

titled [Recommended Practices for Strengthening the Security and Integrity of America’s Science and Technology Enterprise](#). The university associations also supported the [Section 223](#) language on the disclosure of funding sources in applications for federal research and development awards in the final FY 2021 National Defense Authorization Act.

Commerce Bureau of Industry and Security (BIS) which is already statutorily required to define and identify emerging and foundational technologies that need additional controls and protection under the current Export Control Reform Act (ECRA). Tasking NSF with this responsibility would duplicate what the Department of Commerce BIS is already charged with doing under ECRA.

- **Federal research security council at OMB (Section 4493 in S. 1260)** – AAU supports continuing the work across all federal agencies advanced through JCORE and further transparency on the implementation of NSPM-33 in accordance with Section 1746 of the FY 2020 National Defense Authorization Act. We believe that Section 4493, which creates a new federal research security council at OMB, is unnecessary and duplicative to the existing and effective efforts of the NSTC JCORE working group.
- **NSF research security authorities and supporting documentation (Section 2526 of S. 1260 / Section 7(c)(7) in H.R. 2225)** – The Senate provision is very broad and would overwhelm the agency and institutions with unnecessary new information collection and create reporting requirements that are not helpful to ensuring research security. The House bill leaves the collection of such information to the discretion of the NSF Office of Research Security and Policy. The House approach allows for collection of this information when there is reasonable justification based on potential risk. We support section 7(c)(7) on “authorities” in H.R. 2225 over section 2526 in S. 1260.

We support the following provisions that we believe will complement existing federal law and policies with sensible measures that enhance information sharing and collection and clarify definitions:

- **Risk assessment center (Section 2302 in S. 1260 / Section 7(c)(5) in H.R. 2225)** – We support the Senate proposal for a Risk Assessment Center (Research Security and Integrity Information Sharing Analysis Organization, REN-ISAO) included in section 2302 of USICA, while also not opposing section 7(c)(5) of the House bill. These two provisions could be combined in conference with NSF playing a greater role in the RSI-ISAO proposed in sec. 2302.
- **Malign foreign talent recruitment programs language (Section 7(c)(8) in H.R. 2225)** – We support section 7(c)(8) in H.R. 2225 over sections 2303 and section 6101 in S. 1260. The House bill applies a tighter and more clearly understood definition of the “malign” foreign talent recruitment programs, in which covered federal award grantees would be prohibited from participating. It is critical that any prohibition does not exclude legitimate research partnership activities, including joint publication, conference activities, and other activities necessary for our country to remain competitive on global scientific and technological challenges.

Additional NSF & DOE Priorities

Technology Transfer Measures: USICA includes several provisions tasking the new directorate with specific technology transfer activities, including supporting research tests beds (section 2108) and providing additional support for technology commercialization at universities to increase technology transfer capacity; supporting faculty training in entrepreneurship, technology commercialization and research protection; offsetting the costs of patenting research products domestically and internationally; and supporting new regional collaborative technology transfer resource centers; among other things (section 2109). We support these provisions and appreciate USICA’s clear direction for NSF to advance the important objective of moving NSF funded ideas from the laboratory to the marketplace.

Equity and Diversity Measures: We support expanding the diversity of NSF awardees and appreciate the House's approach of doing so through several new capacity building programs authorized in the NSF for the Future Act (H.R. 2225). We share the goals reflected in the bill of increasing research capacity in locations and among personnel historically under-represented in NSF funding, and we support related measures – the Rural STEM Education Act H.R. 210/S. 1374 and the MSI STEM Achievement Act, H.R. 2027 – to this end. Building sustained research capacity and partnerships is a complex endeavor that goes beyond formula spending allocations.

We appreciate the House bill's efforts to advance partnerships that will expand research opportunities to students who attend minority serving institutions or other emerging research institutions. We note that, while we support the goal of the Emerging Research Institution (ERI) pilot program, we encourage refining the definition to ensure eligible institutions have some existing STEM research programs on which to build.

We also support the Broader Impacts (BI) provisions in House bill (section 7(b)), which require assessing the application of the broader impacts criteria and support research and training to improve BI implementation. We believe that improving the consistency of application of BI criteria has the potential to improve the equity and diversity of research funding awards, one grant at a time. We also support including H.R. 2225 provisions authorizing the NSF Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (INCLUDES) program. We also commend both USCIA and the NSF for the Future bills for including provisions to expand the Presidential Awards for Excellence in Math and Science Teaching (PAEMST) and to create a Chief Diversity Officer at NSF.

Similarly, we appreciate that the DOE Science for the Future Act directs the Office of Science to collaborate with NSF to support and leverage the INCLUDES National Network to expand the number of students, early career researchers, and faculty from underrepresented groups working in Department of Energy-relevant disciplines.

STEM Education and Workforce: We strongly support the attention paid to graduate education in the House NSF legislation. In addition to bolstering graduate scholarships and fellowships, the bill also adopts many recent recommendations to help ensure that federal graduate STEM education programs are dynamic and inclusive, that they provide necessary mentoring support, and that they continually evolve to prepare a truly innovative workforce.

We also appreciate the House's proposed increases to the Graduate Research Fellowship Program (GRFP) and National Research Traineeship Programs. Bolstering the GRFP student educational allowance and supporting more diverse recruitment activities are welcome changes that will assist in the training of our future STEM workforce.

We are pleased that the House DOE Science legislation includes provisions to broaden participation for teachers and scientists and to increase diversity, equity, and inclusion of STEM professionals working in Department of Energy-relevant disciplines to expand the recruitment pool. We urge inclusion of the bill's provisions to enhance workforce development programs, build capacity through research partnerships, and establish a university-led Traineeship Program to address workforce training needs for DOE.

We are also glad that the USICA bill includes research recovery provisions which parallel the Supporting Early Career Researchers Act (S.637/ H.R. 144), as well as some of the RISE Act provisions (S. 289/H.R. 869). These bills identify the need for the NSF and other research agencies to continue to provide funds and flexibility to researchers who have been disproportionately impacted by research delays due to the

COVID-19 pandemic. The USICA language directing OSTP to establish agency caregiving policies is also a welcome step toward ensuring additional flexibility to support researchers across the STEM workforce.

Infrastructure: The House NSF for the Future Act includes authorizations for critical research-enabling infrastructure, including a substantial increase to the Mid-Scale Research Infrastructure program, which has consistently endured very high demand but inadequate funding. Furthermore, the House bill authorizes the establishment of a National Secure Data Service (NSDS) demonstration project. This builds on recommendations made in 2017 by the U.S. [Commission on Evidence-Based Policymaking](#) and outlined in the Evidence-based Policy Act of 2018. The creation of the NSDS and supporting data infrastructure will benefit the entire federal government, the general public, and external researchers, many located at universities, by facilitating access to a rich and valuable new set of data resources.

In addition to the NSF infrastructure programs included in the House bill, we encourage you to consider adding authorizations and seeking funding for NSF's Major Research Instrumentation (MRI) and Academic Research Infrastructure (ARI) programs. Support for these additional infrastructure programs is critical to update and modernize the research infrastructure at our nation's colleges and universities and to ensure that NSF research is conducted with efficient, up-to-date equipment, and state of the art computational systems and laboratories.

The House DOE Science for the Future Act ensures that Office of Science construction projects and upgrades of major scientific user facilities are resourced and authorizes a mid-scale instrumentation program to enable the development and acquisition of state-of-the art instruments that would significantly accelerate scientific breakthroughs at research facilities. We encourage the inclusion of these provisions in the final package to expedite the construction of world-class scientific user facilities.

Other Provisions of Interest

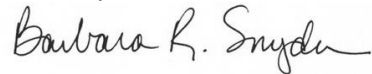
Regional Innovation Hubs: We appreciate that USICA includes authorization of regional technology hubs (section 2401) and the House has also marked up a similar bill (H.R. 4588). For many AAU institutions, the prospect of expanding regional innovation and geographic diversity is crucial to the university partnership with local stakeholders and to preparing and employing a highly technical workforce.

DOE Foundation: AAU supports the establishment of a DOE foundation to fill a critical gap in accelerating commercialization and transitioning new energy technologies to market. The Partnerships for Energy Security and Innovation Act (S. 1359), which would establish a Foundation for Energy Security and Innovation, passed as an amendment to the U.S. Innovation and Competition Act. We support the inclusion of this proposal and its companion legislation in the House, H.R. 4863, in the final innovation and competitiveness package.

Title VI International Education Programs: Title VI provides important resources to colleges and universities across the country to ensure that they can develop and maintain high-quality, innovative international programs of strategic interest. We support the inclusion of the "Advancing International and Foreign Language Education Act" that reauthorizes Title VI of the Higher Education Act and makes improvements to the law that enhances the program in support of foreign language and international studies. The reauthorization of the Title VI program will ensure that American students will have access to high-quality international and foreign language education programs. These programs will meet the needs of our nation and help our students remain globally competitive. The inclusion of the bill will also strengthen the essential role that Title VI plays in training individuals who will make important contributions to our nation's international relations and economic and national security.

We thank you for your continuing efforts on these very important pieces of legislation that support groundbreaking research and advance our nation's innovation and research capacity. This is an opportunity to further invest in the long-standing and successful government-university partnership that is vital to our nation's continuing competitiveness, prosperity, and security. We look forward to working with you as these bills continue to advance through the legislative process.

Sincerely,



Barbara R. Snyder
President, Association of American Universities

cc: Chair Cantwell and Ranking Member Wicker, Senate Committee on Commerce, Science & Transportation;
Chair Murray and Ranking Member Burr, Senate Committee on Health, Education, Labor & Pensions;
Chair Manchin and Ranking Member Barrasso, Senate Committee on Energy & Natural Resources;
Chair Brown and Ranking Member Toomey, Senate Committee on Banking, Housing & Urban Affairs;
Chair Menendez and Ranking Member Risch, Senate Committee on Foreign Relations;
Chair Peters and Ranking Member Portman, Senate Committee on Homeland Security & Governmental Affairs;
Chair Reed and Ranking Member Inhofe, Senate Committee on Armed Services;
Chairman Meeks and Ranking Member McCaul, House Committee on Foreign Affairs;
Chairman Scott and Ranking Member Foxx, House Committee on Education & Labor;
Chair Johnson and Ranking Member Lucas, House Committee on Science, Space & Technology;
Chair Waters and Ranking Member McHenry, House Committee on Financial Services; and
Chair Smith and Ranking Member Rogers, House Armed Services Committee