



September 14, 2020

The Honorable James Inhofe
Chairman
Committee on Armed Services
United States Senate
Washington, D.C. 20510

The Honorable Adam Smith
Chairman
Committee on Armed Services
House of Representatives
Washington, D.C. 20515

The Honorable Jack Reed
Ranking Member
Committee on Armed Services
United States Senate
Washington, D.C. 20510

The Honorable Mac Thornberry
Ranking Member
Committee on Armed Services
House of Representatives
Washington, D.C. 20515

Dear Chairmen Inhofe and Smith and Ranking Members Reed and Thornberry:

On behalf of the Association of American Universities (AAU) and the Association of Public and Land-grant Universities (APLU), associations whose membership includes more than 200 of our nation's top research universities, we thank you for your leadership in passing the fiscal year 2021 (FY21) National Defense Authorization Act (NDAA) – S. 4049 & H.R. 6395 – through your respective chambers. **Please note that as members of the Coalition for National Security Research (CNSR), our organizations share the Defense Science and Technology (S&T) priorities outlined in the Coalition's letter¹**, and appreciate both bills' plus-ups of Defense S&T R&D initiatives, especially in light of requested budget cuts. We write today to share our views on critical policy provisions aimed at protecting and promoting American innovation.

Provisions on the Scientific Workforce

Traineeships for American Leaders to Excel in National Technology and Science

It is critical that we recommit to investing in workforce development and our nation's pipeline of scientists and technologists. Greater opportunities are needed to build institutional capacity and equip American students with the skills to compete for high-demand careers and help meet national critical Defense Department needs. Traineeships are vital to assisting institutions and students creating the building blocks for new interdisciplinary or convergent research areas that are priorities for national security. The "Traineeships for American Leaders to Excel in National Technology and Science" or "TALENTS" program authorized by Sec. 279 of H.R. 6395 would expand access to domestic scientific and technological talent in areas of strategic importance to national security, and develop a process for program participants to fast-track into in-demand positions at the Department of Defense and its

¹ <https://www.aau.edu/sites/default/files/AAU-Files/Key-Issues/Federal-Budget/Agency-Budgets/2020-08-FY-21-CNSR-NDAA-Conference-Priorities-Letter.pdf>

laboratories. This integrative model allows for universities to work with the Department of Defense to engage qualified students in multidisciplinary fields of study. Trainees can earn clearances upon graduation to be eligible for a broader range of DOD-relevant positions, particularly in core modernization priority areas outlined in the national defense strategy. Since institutions themselves must compete for a traineeship award, they are incentivized to work directly with DOD to tailor programs for the future needs of the Department and incorporate innovative and evidence-based approaches to graduate training.

We urge you to include Sec. 279 of H.R. 6395 in the final FY21 NDAA conference agreement.

National Security Innovation Pathways

The United States' premier educational system and research enterprise draws the top minds from all over the world. At a time when other nations are increasing their own research investments and employing strategies to siphon off leading scientists and technologists, we must recommit to winning the global race for talent. Consistent with the recommendations of the Reagan Institute Task Force, Sec. 281 of the House-passed bill would provide a new, narrow pathway for essential experts to contribute their education and talents to the benefit of the National Security Innovation Base. This provision is an example of a smart and modernized approach to talent acquisition.

We urge you to include Sec. 281 of H.R. 6395 in the final FY21 NDAA conference agreement.

Provisions on COVID-19 Impacts

Online and Distance Education Classes

In light of the COVID-19 public health emergency declared by the Secretary of Health and Human Services, many of the institutions that attract this world-class talent are now employing virtual or hybrid-education models. Sec. 1763 of the House-passed bill provides much-needed clarity and assurances to guarantee international students can be in the same time zone and have a safe environment for learning in order to make progress towards academic completion for the duration of the public health emergency. With the start of a new semester, this certainty is urgently needed given the multitude of challenges caused by the global pandemic.

We urge you to include Sec. 1763 of H.R. 6395 in the final FY21 NDAA conference agreement.

Report on Department of Defense University Research COVID-19 Recovery

The COVID-19 pandemic has caused enormous disruptions to the U.S. research enterprise. AAU and APLU support the House's inclusion of report language directing a review of these impacts on Department of Defense-funded fundamental research. Such a report would assist the government's ability to assess outstanding recovery needs, especially for postdoctoral fellows, graduate students, and other technical support staff essential to the scientific workforce.

We urge you to include the language in H. Rept. 116-442 on university COVID-19 research recovery in the final NDAA conference agreement.

Provisions on Science and Security & Research Integrity

Disclosure of Foreign Funding Sources in Applications for Federal Research Awards

AAU and APLU members remain committed to bolstering the security of university research without sacrificing the open exchange of ideas and the spirit of collaboration required for the advancement of science. Our organizations have been leading supporters of Sec. 1746 of the FY20 NDAA to “Secure American Science and Technology” Act or “SASTA.” Building on the provisions of last year’s Act requiring improved coordination between the federal intelligence, security and science agencies and the academic community, we support Sec. 229 in the FY21 House-passed bill to standardize and enhance federal disclosure requirements on federal research awards to ensure the integrity of taxpayer-funded research. This provision would require all university researchers that receive funding from foreign sources disclose those sources when applying for federal grants and contracts. It would further require the Director of the Office of Science and Technology Policy to develop harmonized policies for such disclosure requirements across all federal research agencies – consistent with the requirements envisioned in SASTA – to ensure transparency and protect American investments in research.

We urge you to include Sec. 229 of H.R. 6395 in the final FY21 NDAA conference agreement.

Academic Liaison to Protect Against Emerging Threats

In the spirit of improved federal coordination to mitigate threats to the national security innovation base, we also support language in both the Senate- and House-passed bills (Sec. 233 of H.R. 6395 and Sec. 6282 of S. 4049) to require the Under Secretary of Defense for Research and Engineering to designate an official to work with the academic and research communities to protect DOD-funded research from undue foreign influence and threats. Other major federal agency sponsors of academic research such as the National Institutes of Health and National Science Foundation have dedicated personnel with responsibilities for conducting outreach and education to the academic community on matters of research security and foreign influence. While the Defense Department is the largest federal agency sponsor of research and development (R&D) – and the second largest at academic institutions – it has no office or a position dedicated to the coordination of research security strategies with other federal agencies or the academic and research communities.

We urge you to include Sec. 233 of H.R. 6395 in the final FY21 NDAA conference agreement as it is slightly more comprehensive.

In line with appointing an academic liaison at the DOD, which would allow for greater information sharing to protect our national security and promote U.S. R&D activities, our associations also support Sec. 228 of H.R. 6395, which requires the Secretary of Defense to develop and maintain a list of foreign talent programs that pose a threat to U.S. national security interests. Given the wide interest of many other federal agencies in identifying and better managing the threat posed by some foreign talent programs, we would request the DOD coordinate this list with other agencies and experts.

We urge you to amend the House version of Sec. 228 to include coordination with the National Academies of Science, Engineering and Medicine or appropriate federal agency.

Our organizations are also supportive of Sec. 1285 of S. 4049, which requires appropriate senior officials of institutions of higher education to receive from appropriate government agencies updated and periodic briefings that describe the espionage risks posed by technical intelligence gathering activities of near-peer strategic competitors. We would further urge members to clarify that these briefings be

focused on the risk posed to “academic research.” Unfortunately, many higher education institution officials indicate that current briefings offered by federal intelligence agencies have little utility for universities because the content lacks an understanding of how universities operate and is not relevant to their research institution’s activities.

We urge you to include Sec. 1285 of S. 4049 NDAA conference agreement with an emphasis on making the briefings specific to “academic research.”

Enhanced Information Sharing Requirements for Basic Research

Sec. 1264 of the House-passed bill expands reporting requirements on individuals who participate in defense research and development activities from Sec. 1281 of last year’s NDAA. While we unequivocally share the goal of properly safeguarding federally funded R&D from security threats, we continue to believe that the expansion of the provision to basic research is unnecessary, especially given that such information is already provided in annual reports on DOD awards. Additionally, the current House language fails to provide appropriate guardrails and limitations on the scope of the information that needs to be collected under this provision or how such information is to be used. Without such clear guardrails, this provision has the potential to discourage faculty from wanting to work with DOD to conduct basic research because of the increased burdens it would impose. If this requirement is expanded to basic research, we urge that the information regarding project personnel not be required to be provided until at least four months after the awarding of any grant or contact and thereafter be submitted as a part of already required annual reports from DOD awardees of all personnel appointed during the preceding period.

In the final conference agreement, we urge that you strike Sec. 1264 of the House bill that expands reporting requirements from Sec. 1281 in last’s years NDAA to include basic research. If this provision is retained, it is essential that additional language be included to limit the scope of information collection to annual reports and define parameters for how such information will be utilized and disseminated by the Department.

Prohibition on Procurement or Operation of Foreign-Made Unmanned Aircraft Systems

APLU and AAU are concerned about the potential impact of Section 830B of H.R. 6395, which would prohibit any executive agency from procuring “any commercial off-the-shelf drone or covered unmanned aircraft, or any component...manufactured or assembled by a covered foreign entity...” Through federally funded grants at numerous federal agencies, academic researchers utilize unmanned aerial systems (UAS) to conduct research on agricultural crop surveillance and data collection, enhanced search and rescue capabilities, commercial delivery competences, amongst other areas.

Currently, the U.S. domestic supply chain is not robust enough to make the purchase of UAS affordable or viable for institutions of higher education. While we understand the need for enhanced cybersecurity precautions, with limited to no access to domestic UAS or components of UAS, academic research in this space could be halted. We also caution against utilizing country of origin as a means to verify whether a device or component is safe and secure. Rather, we would recommend a federal government UAS security policy that standardizes necessary safeguards for procurement and use for drones that address national security needs. This would raise the bar for enhanced security standards across the world, not just for domestic production.

We recognize that the DOD was prohibited from operating or procuring unmanned aircraft systems manufactured in China in the FY 2020 NDAA. DOD only recently completed an 18-month search for a

limited number of U.S. suppliers for only small UAS. If the Armed Services Committee intends to legislate on this issue for the rest of the federal government, we encourage you to retain Section 830A of H.R. 6395 in the final conference report in order to have a comprehensive view of UAS supply chain issues before additional policy for the rest of government is put in place.

We urge you to exclude Section 830B of H.R. 6395 from the final FY21 NDAA conference agreement. If a final agreement incorporates section 830B, we request the committee include appropriate waivers for educational and research purposes at institutions of higher education.

Cybersecurity Provisions

Defense Industrial Base Cybersecurity Threat Hunting & Participation in a Threat Intelligence Program

AAU and APLU share the Department of Defense's strong interest in information security. We support the goal of advancing that interest as reflected in the Cybersecurity Maturity Model Certification (CMMC) program. However, as discussed in our September 1 letter with EDUCAUSE and the Council on Governmental Relations to the Under Secretary for Acquisition and Sustainment², much about CMMC – including its relevance to the fundamental research activities of our members – remains unsettled and is likely to stay that way for some time. We therefore argue that CMMC is not yet sufficiently well-developed to support these provisions, which aim to build on the program. They would introduce or likely lead to additional CMMC-related expectations and requirements before the program is fully developed, much less implemented. This will cause confusion for those on our campuses charged with ensuring compliance and could create unnecessary cost burdens, especially in light of the ongoing and uncertain impacts of COVID-19. Furthermore, AAU and APLU request that any final FY21 NDAA provisions on these issues ensure that:

- Fundamental research activities at higher education research institutions are excluded from the scope of these provisions, consistent with the position that such activities should be excluded from the scope of the CMMC program to which the provisions relate;
- Whether the needs assessment included in Sec. 1632 of S. 4049, the program feasibility study included in Sec. 1634 of H.R. 6395, or some variation of the two is adopted, the final provision should make clear that members of the defense industrial base will not be required to expose their internal and confidential computer networks to comply with a possible DOD threat-hunting program;
- The DOD must specify how information related to cybersecurity threats and vulnerabilities generated as a result of programs developed under either provision will be shared with the defense industrial base in a consistent, timely, actionable, and sector-specific matter (where “sector-specific” refers to the various industry sectors reflected by the information sharing and analysis centers organized under the auspices of the Department of Homeland Security);
- Other relevant, federally recognized, third-party initiatives (e.g., the Research and Education Networks Information Sharing and Analysis Center (REN-ISAC)) are eligible vehicles through which institutions can comply with mandates arising from these provisions; and
- Clear cost-recovery mechanisms will be included in programs arising from either provision to allow institutions to address the compliance costs such programs impose.

² https://www.aau.edu/sites/default/files/AAU-Files/Key-Issues/Federal-Budget/CMMCletterEDUCAUSE_COGR_AAU_APLU%20Sept%201%202020.pdf

If these provisions are carried forward, we urge you to adopt the versions of Sections 1631 and 1632 of S. 4049 in the final FY21 NDAA conference agreement including the specific modifications requested above.

Science and Technology Provisions

Social Science, Management Science, and Information Science Research Activities

It is important that the Department of Defense has access to innovation and expertise in social science, management science, and information science to enable the Department to improve the effectiveness and efficiency of DOD activities. Section 221 of H.R. 6395 formally authorizes the Minerva Research Initiative (MRI) at the DOD; would integrate social science research and findings into near-term, mid-term, and long-term national security, defense-related plans; and would allow each military department to establish or designate research centers in the fields of social science, management science, and information science.

We urge you to include Sec. 221 of H.R. 6395 in the final FY21 NDAA conference agreement.

We are also grateful that H.R. 6395 includes language that would restore the Minerva research initiative funding level at \$17M and **urge you to include this provision in the final FY21 NDAA conference agreement.**

Assessment of National Security Industrial Base

We agree that an assessment of the national security industrial base is prudent at this time and we are encouraged to see that a review of graduate education funding policy; immigration policy, including the policies germane to the attraction and retention of skilled immigrants; federally funded investments, including R&D and advanced manufacturing; and federally funded investments to expand domestic manufacturing capabilities are included as part of the assessment. Our associations request that any final report and subsequent recommendations be made public.

We urge you to include Sec. 802 of S. 4049 in the final FY21 NDAA conference agreement.

APLU and AAU are also supportive of the below provisions in both S. 4049 and H.R. 6395:

- **National Artificial Intelligence Initiative:** Our organizations support inclusion of Division E in the House-passed version of the NDAA to incorporate the National Artificial Intelligence (AI) Act of 2020. Consistent with the National Security Commission on AI's recommendations, this authorization would establish a national AI research strategy and streamline interagency coordination. As strategic competitors aim to outpace American advancements in key "industries of the future," this bill would accelerate our nation's ability to compete and maintain our position as the global innovation leader.
- **Industries of the Future** (Senate Subtitle H – Industries of the Future Act of 2020): This bipartisan Senate provision highlights that there are areas of emerging technology necessary for increased support for the U.S to compete globally. The provision tasks OSTP with defining the term industries of the future (IOTF) and determining the current federal support for and developing a plan to increase the IOTF baseline to at least \$10 billion by fiscal year 2025, and creating an advisory council to coordinate investment and actions related to IOTF. We agree that these industries are important to the future of our country, especially by growing basic

research investments in these areas, and encourage inclusion of this provision in the conference agreement.

- **Semiconductor Manufacturing Incentives** (House Sec. 1824 and Senate Sec. 1098): These provisions incentivize and advance domestic semiconductor manufacturing. Of particular interest to our organizations, House sec. 1824 authorizes funding at the National Science Foundation (\$300 million) and National Institutes of Standards and Technology (\$50 million) to advance research and development on semiconductors. Additionally the section calls on the Department of Commerce to create a National Semiconductor Technology Center (a joint effort of DOD, DOE, NIST, NSF, and DHS) that authorizes advanced research and design, and workforce development activities that would require university expertise and partnership. Our organizations support these provisions and encourage increased collaborations between start-ups, academia, and industry with the goal of commercializing innovations that contribute to the domestic semiconductor ecosystem.
- **Sense of Congress on the Role of the National Science Foundation** (House Sec. 272): Our organizations support significant increased funding at the National Science Foundation as currently many strong proposals are unable to be funded. This section acknowledges the funding needs of the agency and encourages exploring new activities and authorities necessary for the agency to address national security benefits. We encourage the inclusion of this sense of Congress.

As negotiations continue towards a final conference agreement, we thank you for taking our above recommendations into consideration. Please do not hesitate to contact AAU's Assistant Vice President for Federal Relations, [Hanan Saab](#), or APLU's Assistant Vice President for Research Advocacy & Policy, [Deborah Altenburg](#), if we can be of any assistance as you work to finalize the FY21 National Defense Authorization Act.

Sincerely,



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