

APLU Analysis of the Biden Administration's FY2022 Budget Request

On May 28, the White House released the administration's full <u>FY2022 President's Budget Request (PBR)</u> to Congress. This document represents an analysis of the request for the various agencies and programs of interest to APLU institutions. We have updated the APLU <u>FY2022 appropriations priorities</u> chart_to include the PBR numbers.

APLU released a <u>statement</u> expressing appreciation for the many investments the proposal would make in higher education and research.

The proposed \$6 trillion request includes \$1.5 trillion for discretionary spending to fund federal agencies in FY2022. Of the \$1.5 trillion proposed for discretionary spending, \$769 billion is designated for nondefense programs (16 percent above FY2021) while \$753 billion is allocated to defense spending (1.7 percent above FY2021). The PBR also provides details on how the administration plans to fund investments outlined in the American Jobs Plan (\$2.3 trillion) and the American Families Plan (\$1.8 trillion) over 15 years.

The substantial increase in nondefense discretionary spending allows for a significant increase in many APLU priorities. The request also supports the creation of new research programs that are priorities of the administration.

Below is information collected from the budget request about programs of interest, in alphabetical order by department/agency. This analysis uses the FY2021 enacted levels as a comparison to the PBR FY2022 numbers.

FY2022 Budget Links

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Appendix (including budget by agency)

Department of Agriculture (USDA)

The president's 2022 request includes \$27.8 billion for USDA, a \$3.8 billion or 16 percent increase from the 2021 enacted level.

The request includes \$4 billion for the USDA Research, Education, and Economics (REE) Mission Area, which is comprised of the National Institute of Food and Agriculture, the Agricultural Research Service, the Economic Research Service, and the National Agricultural Statistics Service. This is a \$647 million increase above the FY2021 enacted level for USDA's research, education, and outreach programs.

The president's request for FY2022, includes several increases for both competitive and capacity funding for agricultural research. The request for State Agricultural Experiment Stations (SAES) includes a \$70

million increase or \$329 million. The McIntire-Stennis Research Program request is \$45.7 million, a \$9.7 million increase to support research in some of the following topic areas: understanding the impacts of new stressors and developing management solutions; adaptation to climate change environmental factors and utilization of forest ecosystems to mitigate climate change; utilization of wood and new applications for forest products; and increasing the use of agroforestry by landowners and communities, with a priority on underserved and minority audiences. The president's request for the Agriculture and Food Research Initiative is \$700 million, an increase of 37.86 percent. The increase has broad emphasis on climate-smart agriculture and application of clean energy. The budget also proposes focused investments in 1) sustainable agricultural systems, 2) foundational and applied science, and 3) education and workforce development.

Department of Commerce

The administration's FY2022 budget requests \$11.4 billion for the Department of Commerce, a \$2.5 billion (28 percent increase) from FY2021 levels. As per the letter, "the 2022 discretionary request supports American manufacturing and research, advances economic recovery in underserved communities, invests in climate science and resilience, and strengthens American competitiveness and security."

Economic Development Administration

The PBR requests \$38 million for the Build to Scale program. This level is equal to what was allocated to the program in FY2021.

National Institutes for Standards and Technology (NIST)

The budget request includes \$167 million for the Manufacturing USA Program (formerly known as the National Network for Manufacturing Innovation). Overall, the discretionary budget invests \$442 million for NIST manufacturing programs, which represents a more than doubling of the 2021 enacted level. This increase includes \$150 million "to fully fund two new Manufacturing Innovation Institutes (MIIs), one of which is aimed at restoring the United States as a global leader in the design and manufacture of semiconductors. These MIIs would complement additional institutes launched by the Department of Defense and the Department of Energy as part of the growing Manufacturing USA network."

The discretionary request also proposes doubling the Hollings Manufacturing Extension Partnership (MEP) by providing \$275 million for FY2022. "The request includes \$125 million in program increases and reflects MEP's plan for increased capabilities to be able to assist all growth oriented small- and medium-sized enterprises (SMEs) to respond to critical national needs."

National Oceanic and Atmospheric Administration (NOAA)

The president's budget request for NOAA is \$7 billion which represents an increase of \$1.5 billion or 28 percent. The request for NOAA Oceanic and Atmospheric Research is \$722 million for operations, research, and facilities, \$154 million over the FY 2021 level. According to the narrative, the increases would allow NOAA to expand its climate observation and forecasting work and provide better data and information to decisionmakers; support coastal resilience programs that would help protect communities from the economic and environmental impacts of climate change; and invest in modern infrastructure to enable these important efforts.

Department of Defense (DoD)

The president's 2022 discretionary request includes \$715 billion for DoD. Unfortunately, while the DoD's press release touts the "largest ever" Research, Development, Testing & Evaluation (RDT&E) budget request at \$112 billion (a \$5 billion increase over FY21), all of the university based research programs tracked by APLU would receive significant cuts under the proposal. The one exception being DARPA which would receive a less than 1 percent increase in funding. Significant focus would be placed on microelectronics, artificial intelligence and 5G across the RDT&E portfolio. DoD's FY2022 budget documents provide additional information.

Department of Education (ED): Student Aid and Higher Education

Overall, the president's budget request would fund the Department of Education at \$102.8 billion for FY2022, a 40 percent increase over FY21 levels (ED was funded at \$73 billion in FY2021).

The administration requests a \$3 billion discretionary increase for the Federal Pell Grant program, which would fund a \$400 increase to the maximum Pell Grant. The request also calls for an \$8.6 billion increase in mandatory funding for the program, which would allow for an additional \$1,475 increase to the maximum Pell Grant. (This would bring the total maximum Pell award to \$8,370.) The budget request also proposes that DREAMers be made eligible for the Pell Grant program, as well as campusbased aid programs. The PBR again mentions the President's goal to double Pell but does not provide additional details on a pathway to get there.

Further, the administration requests an additional \$200 million for TRIO programs (an 18.23 percent increase), as well as a \$40 million increase for GEAR UP programs (a 10.87 percent increase). Many other higher education programs, including the Supplemental Educational Opportunity Grant (SEOG), Federal Work Study (FWS), Graduate Assistance in Areas of National Need (GAANN), and Title VI international education and foreign language studies, receive flat funding in the President's budget request.

The budget requests a \$95 million increase for the Institute of Educational Sciences (IES), representing an almost 15 percent increase over FY21.

The budget request provides significant funding increases to other higher education programs, including campus-based child care (\$95 million for the Child Care Access Means Parents in School, or CCAMPIS program, a \$40 million increase); teacher quality partnership grants (\$132 million, an \$80 million increase), and significant increases to discretionary spending on programs that support HBCUs and MSIs. The administration also requested \$76 million for the Funding for the Improvement of Postsecondary Education (FIPSE), a \$35 million increase over FY21, which would in part support a new grant competition focused on student success. The administration also requests that Congress double the TEACH Grant award for college juniors, seniors, and graduate students from \$4,000 to \$8,000 per year.

Finally, the administration proposes a new Completion Grant program, that would provide \$62 billion over ten years (6.2 billion for FY22) to support completion and retention activities at colleges and universities that serve high proportions of low-income students. The program would be formula funded, and would support a range of evidence-based and promising practices including comprehensive academic support services, direct student support services (including mental health services, childcare, transportation, and emergency financial assistance), career coaching and networking, and improving the success of transfer students.

Department of Energy (DOE)

The president's FY2022 budget requests \$46.1 billion for DOE, a \$4.3 billion or 10.2 percent increase from the agency's FY2021 allocation.

The discretionary request invests \$7.4 billion, an increase of more than \$400 million over the 2021 level, in DOE's Office of Science "to better understand the changing climate; identify and develop novel materials and concepts for clean energy technologies of the future; advance artificial intelligence and computing to enhance prediction and decision making across numerous environmental and scientific challenges; and support the National Laboratory network with cutting-edge scientific facilities."

The PBR includes \$500 million for the Advanced Research Projects Agency — Energy. As the budget in brief states, "In FY 2022, ARPA-E plans to release up to fifteen new funding opportunity announcements (FOAs). The FOAs will address new areas not represented in the present portfolio and develop new opportunities opened by the outcomes of previous programs."

The request also supports the creation of the U.S. Department of Energy's Advanced Research Projects Agency-Climate (ARPA-C), which "will invest in climate-related innovations necessary to enable adaptation, increase resilience and achieve net zero non-energy emissions by 2050." The administration seeks \$200 million for ARPA-C in FY2022 from the Department of Energy (DOE). The documents note that "the \$200 million requested will support the buildout of ARPA-C and fund up to six initial programs." The administration also requests funding for ARPA-C in the American Jobs Plan. "The combined \$1 billion in the FY 2022 Budget funds ARPA-E, seeds a new ARPA-C, and includes \$300 million for other Federal agencies to further fund ARPA-C's mission. The American Jobs Plan includes an additional \$15 billion specifically for ARPA-C, an infusion to address the crisis in the near-term with a temporary, but significant effort in supporting novel technology solutions to increase adaptation and resilience as well as creating economic opportunities."

Department of Health and Human Services (HHS)

The administration's FY2022 budget requests \$131.7 billion for HHS, a \$25 billion (23.5 percent) increase from FY2021 levels.

The discretionary request includes \$52 billion for the National Institutes of Health (NIH), a \$9 billion increase over the 2021 enacted level, to continue to support research that enhances health, lengthens life, and reduces illness and disability. Included in this increase is \$6.5 billion to establish ARPA-H. As the release states, "with an initial focus on cancer and other diseases such as diabetes and Alzheimer's, this major investment in Federal research and development would drive transformational innovation in health research and speed application and implementation of health breakthroughs." The budget in brief notes that the "remaining \$2.5 billion will continue NIH's long-standing commitment to investing in basic research and translating it into clinical practice to address the most urgent challenges, which include ending the opioids crisis, climate change, and gun violence."

The administration's request also looks to address gun violence in the U.S. and provides a doubling for CDC and NIH funding for firearm violence prevention research. "The budget also provides \$100 million to CDC to start a new Community Violence Intervention (CVI) initiative, in collaboration with

Department of Justice, to implement evidence-based community violence interventions at the local level."

Department of Interior (DOI)

The president's 2022 request includes \$17.4 billion for DOI, a \$2.4 billion or 16 percent increase from the 2021 enacted level. The request provides an additional \$550 million over the 2021 enacted level to "decrease climate pollution, accelerate clean energy deployment, and expand efforts around climate adaptation and ecosystem resilience among all the Department's land management agencies."

The Department of Interior Joint Fire Science Program is prioritized with a \$5 million increase, bringing the request to \$8 million. The request for the USDA Forest Service portion of the program is flat at \$3 million. Additionally, the request includes a modest increase to the Cooperative Research Units within USGS of \$500,000.

<u>Department of State and U.S. Agency for International Development (USAID)</u>

USAID

The president's 2022 request includes \$63.5 billion for the State Department and other international programs, a \$6.8 billion or 12 percent increase from the 2021 enacted level.

The president requests \$235 million for higher education assistance and no less than \$35 million for new and ongoing partnerships between higher education institutions in the United States and developing countries focused on capacity building consistent with the Fiscal Year 2021 level.

<u>Department of State</u>

The budget would provide \$741.3 million for the Department of State Educational and Cultural Exchange (ECE) Programs. Although a specific request number is not listed for APLU's newest priority program within ECE, EducationUSA, the justification document notes, "The number of annual outreach contacts of the EducationUSA Global Advising network (as reported in the annual Global Guide publication for U.S. higher education) increased by three percent from 2018 to 2019 and is anticipated to increase further post-pandemic."

Environmental Protection Agency (EPA)

The president's 2022 request includes \$11.2 billion for EPA, a \$2 billion or 21.3 percent increase from the 2021 enacted level. The budget request for the EPA Office of Science and Technology is \$829.9 million, an increase of \$100 million.

National Aeronautics and Space Administration (NASA)

The administration's FY2022 budget requests \$24.7 billion for NASA, a 6.3 percent increase from FY2021 allocations.

The administration requests \$7.9 billion for the Science Mission Directorate, which represents an 11.1 percent increase from FY2021 enacted levels. The discretionary request provides \$2.3 billion for Earth

Science programs, an increase of \$250 million above the 2021 enacted level, "to initiate the next generation of Earth observing satellites to study pressing climate science questions."

For NASA's Space Technology portfolio, the administration requests \$1.4 billion, a \$345 million increase above 2021 enacted levels. "With this investment, the program would enhance the capabilities and reduce the costs of the full range of NASA missions and provide new technologies to help the commercial space industry grow. In addition, the discretionary request encourages novel early-stage space technology research that would support the development of clean energy." Furthermore, the discretionary request provides \$915 million, an increase of \$86 million above the 2021 enacted level, for aeronautics research and development that "would broaden and accelerate the testing of technologies that would enable highly efficient, next-generation airliners."

The PBR also requests \$57 million for the Space Grant program, an 11.76 percent increase from FY2021 enacted levels. As the summary documents state: "FY2022 will see an increase of at least \$100,000 per Consortium to increase the number of student awards and other programming within each Consortium. With the additional funding in Space Grant, NASA will look to expand opportunities to partner with mission directorates on awards that further mission directorate priorities and align with Space Grant capabilities. Additionally, NASA will have an increased focus on how Space Grant can address the persistent challenges of broadening participation in STEM and reaching underrepresented and underserved students."

National Endowment for the Humanities (NEH)

The PBR proposes \$177.6 million for NEH in FY2022, \$10.1 million or 6 percent above FY2021. The request includes funding to expand humanities initiatives at Historically Black Colleges and Universities, Tribal Colleges and Universities, and Hispanic-serving Institutions.

National Science Foundation (NSF)

The president's 2022 discretionary request includes \$10.2 billion for NSF, a \$1.7 billion or 20 percent increase from the 2021 enacted level.

With these funds, the agency would advance climate science and sustainability research, enhance fundamental research and development, advance racial equity in science and engineering, strengthen U.S. leadership in emerging technologies, and continue the construction of major research facilities.

The administration's request also includes the establishment of a new directorate for technology, innovation, and partnerships (TIP) within NSF as proposed in the American Jobs Plan. The plan proposes investing \$50 billion over eight years in a new directorate for technology at NSF that will "closely collaborate with all of NSF's other directorates and offices, as well as with other stakeholders in the Nation's research, innovation, and education enterprise, to advance science and engineering research and innovation leading to breakthrough technologies as well as solutions to national and societal challenges, sustaining and enhancing U.S. competitiveness on a global stage; accelerate the translation of fundamental discoveries from lab to market, advancing the U.S. economy; and create education pathways for every American to pursue new, high-wage jobs, supporting a diverse workforce of researchers, practitioners, and entrepreneurs." For more information on the proposed new directorate please view NSF's budget overview pgs. 249-256.