EDDIE BERNICE JOHNSON, Texas
CHAIRWOMAN

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RANKING MEMBER

Congress of the United States
House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
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May 20, 2022

The Honorable John Yarmuth
Chairman
Committee on Budget
U.S. House of Representatives
204-E Cannon House Office Building
Washington, DC 20515

The Honorable Jason Smith
Ranking Member
Committee on Budget
U.S. House of Representatives
507 Cannon House Office Building
Washington, DC 20515

Chairman Yarmuth and Ranking Member Smith:

Please find enclosed the Majority Views and Estimates of the Committee on Science, Space, and Technology on the FY 2023 Budget Request. Thank you for your consideration.

Sincerely,

Eddie Bernice Johnson

Eddie Bernice Johnson
Chairwoman
Committee on Science, Space, and Technology

Views and Estimates of the Committee on Science, Space, and Technology On the Fiscal Year 2022 Budget Request for Submission to the Budget Committee

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Representative Lizzie Fletcher

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Views and Estimates of the Committee on Science, Space, and Technology On the Fiscal Year 2023 Budget Request for Submission to the Budget Committee

The following are the Committee's views on key priorities in the budget summary related to programs within the Science, Space, and Technology Committee jurisdiction.

National Science Foundation (NSF)

The President's budget request includes $10.49 billion for NSF, an increase of $1.65 billion [19 percent] from the Fiscal Year (FY) 2022 appropriated level of $8.84 billion. While the proposed funding level falls short of what was authorized in the America COMPETES Act, it represents an important and overdue right-sizing of the agency, and we applaud the Administration's commitment to NSF. Among other the other priorities supported by the request, the additional funding will enable the Foundation to advance more cutting-edge research across all six research directorates; accelerate innovations in STEM education and training for students from all backgrounds; and move forward with the new Technology, Innovation and Partnerships (TIP) Directorate that will be focused on use-inspired research and technology-based solutions to pressing societal challenges. However, to allow the agency to properly support these and other initiatives as well as deal with the impact of covid on the construction of a number of its ongoing research projects, we support a further increase to a level of $12.5 billion, consistent with the level authorized in the America COMPETES Act. Such an increase is especially important to allow the agency to get its new TIP Directorate off the ground while continuing to increase core investments. It will also fund the many important existing and new STEM education and broadening participation programs authorized in COMPETES, which include a focus on geographic diversity.

National Institute of Standards and Technology (NIST)

The FY23 request for NIST is $1.47 billion, an increase of $237 million or 19 percent from the FY22 enacted level. Of this, Scientific and Technical Research Services—NIST's core measurement research and standards account—would increase by $162 million, or 20 percent. This request would increase funding for agency research into advanced communications, artificial intelligence, bioscience, climate and energy measurements, advanced manufacturing, and much more. The request would also increase funding for the NIST Center for Neutron Research to address the ongoing shutdown of the facility caused by an incident in February 2021. The Industrial Technology Services Account, which includes the Manufacturing Extension Partnership (MEP) Program and the Manufacturing USA institutes, would be increased by nearly $198 million or 113 percent. This large increase would support two new Manufacturing USA institutes and a 74 percent increase for MEP. The request also increases NIST's construction budget to $120 million. NIST has a significant construction and maintenance backlog on its two campuses. The agency estimates a need of $200 million per year for five years to address this challenge—an amount well above the President's budget request. We support funding for

construction and maintenance at NIST's research campuses sufficient to address that backlog, so that NIST's scientists will have cutting-edge rather than crumbling facilities with which to carry out their critically important research.

National Aeronautics and Space Administration

The President's proposed FY23 investment of nearly $26 billion in the nation's civil space and aeronautics programs, a $2 billion [8 percent] increase over the FY22 enacted appropriation, represents a serious commitment to NASA's programs and to a balanced NASA portfolio. The President's FY23 budget request also proposes continued operations for the International Space Station and requests a 121% increase over the FY22 enacted appropriation for preliminary work on commercial space stations that NASA is seeking to use for research and related activities in low Earth orbit following the end of ISS operations. The PBR proposes increases over the FY22 enacted appropriations for space technology, STEM education, science, and aeronautics, including NASA's important work on sustainable aviation and Earth and climate-related science. Funding is also included for NASA's Artemis Moon-Mars human exploration initiative, but it remains to be seen whether it is sufficient to develop and carry out a serious and sustained campaign of crewed lunar missions at an acceptable level of mission and safety risk.

Department of Energy (DOE)

The President's request provides $16 billion overall for Department of Energy science and energy research, development, demonstration, and commercial application activities in FY23, which would be a 16.7% increase over the total appropriated level for these activities in FY22. However, there is wide variation in how this proposed increase is distributed among DOE's programs, ranging from a 1.2% increase for nuclear energy R&D to 44.9% for energy efficiency and renewable energy R&D. The request also includes a proposed 55.6% increase for ARPA-E. DOE's Office of Science would receive a 4.3% increase. This level of growth at DOE's Office of Science is not sufficient to support the budget profiles that would be required to maintain the schedule and minimize the total project costs of the ongoing construction of a set of advanced research facilities currently stewarded by the Office. In addition, the proposed FY23 level for the DOE Office of Science is over a billion less than the FY22 authorization level for the Office included in the bipartisan DOE Science for the Future Act that is part of the America COMPETES Act. Further, the FY23 request for the Office of Science's fusion program would amount to a 1.4% increase over the FY22 appropriated level. That amount is significantly less than that authorized in the Energy Act of 2020 and the DOE Science for the Future Act, and is inconsistent with the progress made to date and the potential benefits of improved support for fusion energy R&D. Finally, we support the President's request for the Advanced Research Projects Agency-Energy (ARPA-E), which now has a proven track record that can be measured in the number of new companies, patents, follow-on private sector funding, and follow-on partnerships that have resulted from ARPA-E's investments to date.

National Oceanic and Atmospheric Administration (NOAA)

The President's FY23 request for the National Oceanic and Atmospheric Administration (NOAA) is $6.9 billion – an increase of $1.02 billion from the FY22 enacted level. This increase would support NOAA's work to predict the weather, including extreme weather associated with climate change, protect the oceans and coasts, and improve wildfire observation and prediction. Among the notable increases included in the request are $720 million towards the National Ocean Service (NOS), an increase of $70.80 million from the FY22 enacted level; $1.37 billion towards the National Weather Service (NWS), an increase of $85.33 million from the FY22 enacted level; $824 million towards the Oceanic and Atmospheric Research (OAR), an increase of $176.05 million from the FY22 enacted level; $2.30 billion towards the National Environmental Satellite, Data, and Information Service (NESDIS), an increase of $680.88 million from the FY22 enacted level; and $608 million towards Mission Support (MS), an increase of $231.46 million from the FY22 enacted level. It is also encouraging that the request includes a $376 million investment in NOAA's climate resilience activities. This includes $92 million for expanded climate competitive research grants. It also proposes an investment of $2.3 billion for the next generation of weather satellites. Other critically important areas of investment are a total of $120 million specifically for wildfire-related activities at NOAA, including prediction, detection, observation, modeling, forecasting, and research. Moreover, the request intends for funds otherwise allocated to also support NOAA's wildfire work. In addition, the request proposes at least $80 million for research supercomputing to support weather and climate model development. Sustained advances in research will require the advanced computing resources needed to support those advances. Finally, the request proposes an unprecedented level of funding increase for the Office of Space Commerce, an increase of $72 million over the FY22 enacted level of $16 million. The request for the Office "expands opportunities for civil space situational awareness and supports the long-term sustainability of the space environment by committing $88 million…in order to improve real-time tracking and reporting of space objects and debris." The Committee is preparing legislation directed at space situational awareness, and as a result of that will be determining what is an appropriate funding level for those activities at Commerce.

Environmental Protection Agency (EPA)

The President's Budget Request for FY23 includes $11.9 billion for EPA, a $2.34 billion increase from the FY22 enacted level. This significant increase would support EPA's work to follow the science, ensure scientific integrity and science-based decision making and will help to restore EPA's capability to protect human health and the environment. The request provides an investment of $864 million, or 7.3% of EPA's total budget, for the Science and Technology account. This represents a $114 million increase in the Science and Technology budget from the $750 million enacted in the FY22 appropriations. Additionally, the request includes funding to support a total of 16,204 full-time equivalents (FTE), an increase of 1,907 above the current level, to restore the Agency's capacity to carry out its important tasks. The request includes $644 million and 1,853 FTEs for EPA's Office of Research and Development (ORD) as part of the prioritization of science within the EPA. The request provides a $37.5 million increase to Air,

Climate, and Energy research within ORD from FY22 enacted to conduct science and technology activities to develop and implement strategies to improve air quality and take action on climate change, as well as to improve wildfire readiness.