



FY 2023 Appropriations Priorities

Interior, Environment, and Related Agencies

Agency	Account	APLU FY2023 Request
U.S. Geological Survey	Water Resources Research Act	\$18 million
	Cooperative Research Units	\$30 million
Environmental Protection Agency	Office of Science and Technology (S&T)/STAR Research and Fellowships	\$863 million/\$50 million
National Endowment for the Humanities		\$204 million
Interior	Joint Fire Science Program	\$20 million

U.S. GEOLOGICAL SURVEY (USGS)

WATER RESOURCES RESEARCH ACT (WRRRA) PROGRAM

APLU FY2023 Request: \$18 million

FY2023 PBR = \$15 million; FY2022 = \$14 million; FY2021 = \$11 million

APLU requests \$18 million for the Water Resources Research Act Program in FY2023 to support research on water and water-related phenomena, aid entry of new research scientists into water-resources professions, train future water scientists and engineers, and distribute results of sponsored research to water managers and the public. This support takes the forms of research, education, and outreach. In partnership with the U.S. Geological Survey, the water institutes have a 50-year history of rendering assistance to all members of the water-user communities¹. There are 54 state Water Resources Research Institutes (WRRI) or Centers, organized as the [National Institutes for Water Resources \(NIWR\)](#). One NIWR is in each of the 50 states and the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. State programs match the federally administered funds—in some cases by a ratio of two to one—to address local, state, and regional needs.

The NIWR cooperates with the USGS to support, coordinate, and facilitate research by offering Annual Base Grants, National Competitive Grants and Coordination Grants, and by operating the NIWR-USGS Student Internship Program. Both undergraduate and graduate students - 306 in FY 2021 - explore new ideas and learn new skills. Examples of NIWR research include:

- “Process-Based Prediction of Present and Future Flood Conditions and Uncertainties across the United States” in Wisconsin;

¹ Donohue, M.J., Greene, E.A., and Lerner, D.T., 2021, Water Resources Research Act Program—Current status, development opportunities, and priorities for 2020–30: U.S. Geological Survey Circular 1488, 27 p., <https://pubs.er.usgs.gov/publication/cir1488>

- “Harmful algal blooms and public safety: a monitoring and research program aimed at understanding cyanobacterial blooms and toxin production” in Oklahoma;
- “Water Quality as a Deterrent to the Movement of Invasive Fishes in the Illinois Waterway: Implications for the Upper Mississippi Basin” in Illinois; and
- “In-stream contaminant attenuation by sunlight: benefits for water reuse” in Arizona

State and local funds through the WRRRA program support superior long-term water planning and management in areas such as combating harmful algal blooms, mitigating drought effects, and protecting against soil erosion. The Institutes collaborate with over 150 state agencies, 180 federal agencies, and more than 165 local and municipal offices and support over 350 students in training, over 200 research projects, and more than 550 researchers per year. As the nation’s water challenges increase, the Institutes are poised to grow their partnership with the USGS to tackle key problems related to water-related hazards, water quality, and water availability.

COOPERATIVE RESEARCH UNITS (CRUs)

APLU FY2023 Request: \$30 million

FY2023 PBR = \$28.15 million; FY2022 = \$26 million;

FY2021 = \$25 million

APLU requests \$30 million for the U.S. Geological Survey (USGS) Cooperative Research Unit (CRU) Program in FY23 to fill the significant number of CRU vacancies that continue to erode cooperative capacity, fund longstanding requests for new programs in unrepresented states, and provide a source of operational funds for scientists. APLU also supports an increase to expand initiatives for youth involvement in science and resource management.

The USGS CRUs consist of 40 units within 38 states. Each unit is a collaborative partnership between the USGS, the state natural resource agency, the host university, and the Wildlife Management Institute. Situated on university campuses, CRU research programs are guided by these management agencies so that the science and decision-making tools they develop effectively bridge the gap between state and federal agencies as well as non-governmental players. CRUs are the research arm of state fish and wildlife and federal natural resource agencies, providing them with the science to support sustainable hunting, fishing, and trapping seasons that drive the American system of conservation funding.

Resource agencies partner with the CRUs for four primary reasons: (1) to conduct science-based fish and wildlife research and answer management questions, (2) to provide highly cost-effective and productive applied science and research, (3) to support and maintain highly reputable scientists, and (4) to professionally train the next generation of fish and wildlife biologists who support and understand state and federal agencies’ natural resource management needs, goals, and objectives. In 2020, CRU scientists were engaged in over 600 research projects, many targeting our nation’s most important and iconic species such as elk, white-tailed deer, mule deer, pronghorn, moose, black bear, mountain lion, turkey, Canada goose, sage grouse, northern bobwhite, rainbow trout, Chinook salmon, and largemouth bass. APLU urges Congress to support the Units with funding of \$30 million for FY 2023 to protect and sustain our nation's valued fish and wildlife resources.

ENVIRONMENTAL PROTECTION AGENCY (EPA)

OFFICE OF SCIENCE AND TECHNOLOGY (S&T)

APLU FY2023 Request: \$863 million / \$50 million for STAR

FY2023 PBR = \$863 million; FY2022 = \$750.2 million;

FY2021 = \$729.3 million

APLU urges Congress to fund the Environmental Protection Agency Science and Technology account (S&T) at \$863 million in FY23, of which \$50 million is requested for the Science to Achieve Results (STAR) Program to support science-based, cost-effective solutions to the nation's environmental and public health challenges. This requested increase to the S&T account would provide increased support to STAR research, but would also restore the STAR Graduate Fellowship program, and to support the development of investigator-driven research.

Within the S&T account, the Science to Achieve Results (STAR) program provides research grants to universities across the country, pioneering new technologies and strengthening the workforce pipeline. In 2017, the National Academies of Science, Engineering, and Medicine (NASEM) assessed the program, finding that STAR has valuable scientific impact, and that its merits also extend to numerous other aspects of public life, including public health decisions, reductions in regulatory compliance costs, workforce development, and research infrastructure.²

Despite these merits, funding for STAR has deteriorated consistently from a peak of \$138 million in FY2002 to \$28.6 million in recent years. In FY2021, Congress encouraged the EPA to revitalize STAR by exploring programmatic changes recommended by NASEM, which included reinstating the STAR Graduate Research Program as well as developing a mechanism for investigator-initiated research. Unfortunately, S&T funding was held flat, limiting EPA's capability to make changes. Before its termination, the STAR Graduate Fellowship program served as the workforce pipeline program for graduate student researchers in the environmental (toxicology, pollution chemistry, etc.) and public health sciences. The program helped offset costs associated with obtaining an advanced degree in the environmental and environmental health sciences while exposing promising students to careers in environmental science. APLU requests an increase in S&T to support STAR research and to restore the STAR Graduate Fellowship program.

Report Language

Science to Achieve Results (STAR). — The Committee recognizes the importance of STAR to supporting research that is critical to the Agency's scientific mission and so provides \$50,000,000 for activities supported therein. The Committee intends that this increase will enable the Agency to accommodate the following programmatic changes proposed by Congress in the explanatory report accompanying P.L. 116-260: initial implementation of a mechanism for the submission of unsolicited, principle investigator-initiated proposals within STAR to capture innovative research ideas that may exist outside the Agency but that hold potential for

² National Academies of Science, Engineering, and Medicine, "A Review of the Environmental Protection Agency's Science to Achieve Results Research Program", 2017, available at <https://www.nap.edu/catalog/24757/a-review-of-the-environmental-protection-agencys-science-to-achieve-results-research-program>.

advancing its mission; and reestablishment of the STAR Graduate Fellowship program in service of developing the next-generation multidisciplinary environmental science workforce.

NATIONAL ENDOWMENT FOR THE HUMANITIES (NEH)

APLU FY2023 Request: \$204 million

FY2023 PBR = \$200.6 million; FY2022 = \$180 million;

FY2021 = \$167.5 million

APLU requests \$204 million for the National Endowment for the Humanities as a key step in rebuilding funding capacity and strengthening the program's impact. The request is consistent with the administration's request for the National Endowment for the Arts which has been funded at same level as NEH since 2008.

NEH grants are awarded on a merit-reviewed basis to organizations and institutions in every U.S. state and territory, providing a vital source of funds for scholars and researchers whose work illuminates social, economic, political, and cultural challenges facing our nation and world today. Of the applications received by NEH in FY2020, 1,605 with ratings high enough to qualify for funding were not funded, amounting to a total dollar value of \$184,789,512. Federal investment in NEH is critical to bridging divides between communities through conversation programs that aid in confronting difficult issues. Additionally, increased federal funding for the NEH is essential to preserving cultural heritage, including important historical documents and artifacts. As an example, created through a federal partnership between NEH and the National Science Foundation, the Documenting Endangered Languages program provides grants with the goal of recording and protecting the languages of Native American tribes throughout the U.S.

The NEH also plays a critical role in stimulating private investment in local economies. Created in 1977, the NEH Challenge Grants program has raised more than \$3 billion in private support for humanities projects by leveraging federal funds at a ratio of three to one. Furthermore, NEH's investment in historic sites and museums across the United States has played a critical role in developing and maintaining local tourist economies.

JOINT FIRE SCIENCE PROGRAM (JFSP)

APLU FY2023 Request: \$20 million

FY2023 PBR = \$ million; FY2022 = \$8 million; FY2021 = \$6 million

APLU urges Congress to fund the Joint Fire Science Program (JFSP) at \$20 million in FY23, with \$10 million in the U.S. Department of Interior Wildland Fire Management budget and \$10 million in the USDA Forest Service budget. There is an urgent need to address the nation's increasingly devastating wildfires. For example, more than 58,985 wildfires burned 7.1 million acres in 2021. The 2021 Fire Year is the most extensive on record.³ APLU requests additional funding to support wildfire research given the increased frequency and severity of wildland fire.

³ https://www.predictiveservices.nifc.gov/intelligence/2021_statssumm/annual_report_2021.pdf

JFSP projects address salient issues such as understanding smoke impacts, identifying drivers of fire costs, analyzing fire behavior, and understanding fire effects on resources and communities.^{4,5} Increased support is needed to enable wildland managers and county/state government officials to anticipate, mitigate, and respond to risks and impacts of increasing wildfires by better understanding wildfire dynamics and suppression/prevention techniques. Increased support will enable research to support preparation, prevention, and resilience instead of only focusing on response.

The JFSP model is uniquely positioned to address this increased frequency and severity of wildland fires because it is informed by the management priorities of major fire-fighting entities via a 12-member Governing Board. The Board includes members from the U.S. Forest Service, Bureau of Land Management, Bureau of Indian Affairs, Fish and Wildlife Service, National Park Service, U.S. Geological Survey, and Office of Wildland Fire. These six federal land management agencies work together to identify problems associated with managing wildland fuels, fires, and fire-impacted ecosystems that would benefit from research. As a result, JFSP matches applied science with on-the-ground fire management needs. The JFSP research priorities are funded via competitive awards that require outreach to fire managers and local, state, and regional policymakers. As the only program of its kind, at a time when the U.S. faces unprecedented wildfire challenges, funding for this program should be prioritized.

ABOUT THE ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES

APLU is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities. With a membership of 244 public research universities, land-grant institutions, state university systems, and affiliated organizations, APLU's agenda is built on the three pillars of increasing degree completion and academic success, advancing scientific research, and expanding engagement. Annually, its 202 U.S. member campuses enroll 4.2 million undergraduates and 1.2 million graduate students, award 1.2 million degrees, employ 1.1 million faculty and staff, and conduct \$48.7 billion in university-based research.

⁴ Gucker, C. 2019. [The Joint Fire Science Program: 20 Years of Innovation and Transformative Contributions to the Wildland Fire Community](#). National Interagency Fire Center, Joint Fire Science Program, Boise, ID.

⁵ <https://www.firescience.gov/Publications/JFSP-infographic-120120.pdf>