

Written Statement of
Christofer Nelson, President and CEO, Association of Science and Technology Centers;
Laura Lott, President and CEO, American Alliance of Museums;
Arthur G. Affleck, III, Executive Director, Association of Children's Museums; and
Bonnie Styles, Executive Director, Association of Science Museum Directors

to the

**United States Senate Appropriations Subcommittee on
Commerce, Justice, Science, and Related Agencies**

regarding

**Appropriations for National Science Foundation, National Aeronautics and Space
Administration, and National Oceanic and Atmospheric Administration**

May 12, 2023

Chair Shaheen, Ranking Member Moran, and Members of the Subcommittee:

Thank you for accepting this testimony submitted by the Association of Science and Technology Centers (ASTC), the American Alliance of Museums (AAM), the Association of Children's Museums (ACM), and the Association of Science Museum Directors (ASMD).

We appreciate the opportunity to present the views of our associations to the Subcommittee for its consideration as it prepares to write the Fiscal Year 2024 Commerce, Justice, Science, and Related Agencies Appropriations bill, particularly regarding the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA), and the National Oceanic and Atmospheric Administration (NOAA).

Our associations represent more than 5,000 member organizations in every state and district in America, including science centers, museums of all types, nature centers, aquariums, zoos, planetariums, botanical gardens, and natural history and children's museums, as well as companies, consultants, and other organizations that share an interest in science education and public engagement in science.

Taken together, our national reach is a vital resource for fostering rich public engagement in the importance of science and many other subjects and disciplines towards building a bright future and opportunity for all. Our place-based organizations are leading institutions in the efforts to promote education in science, technology, engineering, arts, and mathematics (STEAM), developing rich, innovative, and effective science-learning experiences. We are helping to create the future STEAM workforce and inspiring people of all ages about the wonders and the meaning of science in their lives. Our members are trusted and valued by their communities—and a recent national public opinion poll showed that museums are among

the most trusted sources of information across the political spectrum, second only to friends and family—above nonprofit organizations generally, local and national news organizations, government, business, and social media ([Museums and Trust](#), AAM and Wilkening Consulting, 2021).

As trusted place-based institutions, our members serve essential roles in convening their communities, advancing action on issues of local and national concern, and engaging individuals of all ages in science and technology.

Requests for Fiscal Year 2024 Appropriations

We appreciate the support that the Subcommittee has provided for the nation’s science and education agencies, including support for programs of particular interest to ASTC, AAM, ACM, and ASMD.

In general, we stress the need for inclusive programs that include support for informal education, as much STEAM learning—including but not limited to school-aged youth—happens outside of formal schooling. Research has consistently shown that learning experiences outside of the formal classroom are vitally important to youth’s future interest and capacity in STEAM (National Academies, [2009](#), [2010](#), [2015](#), [2016](#)).

National Science Foundation (NSF)

The National Science Foundation (NSF) is one of our nation’s most important sources of support for STEM education, including many of the programs centered in the Directorate for STEM Education (EDU), which supports STEAM education at all levels and for all audiences to help develop a diverse and well-prepared workforce and a scientifically well-informed citizenry.

Of particular interest to the museum community is the Advancing Informal STEM Learning (AISL) program in the Division of Research on Learning in Formal and Informal Settings, which advances new approaches to and evidence-based understanding of learning in informal environments. However, current funding levels have limited the ability of the program to support the range of informal STEM education programs that have been ranked highly competitive. We ask you to provide **at least \$75 million for the Advancing Informal STEM Learning (AISL) program.**

NSF also supports STEAM education, informal learning, and the public’s engagement with science through its research directorates, and we urge the Subcommittee to provide increased funding for the NSF Directorates for Biological Sciences; Geosciences; Mathematical and Physical Sciences; Social, Behavioral and Economic Sciences; and STEM Education to continue to support museum research, collections, and programs that are key to lifelong STEAM education. We also support the focus on the intersection of science and society in NSF’s new Directorate for Technology, Innovation, and Partnerships—including several opportunities to promote public engagement with science.

Finally, we support continued analysis and refinement of the broader impacts criterion on which all NSF proposals are evaluated, including efforts to enhance training for merit review

panelists and NSF program officers—and the development of tools for evaluating and documenting the societal impacts of research.

National Aeronautics and Space Administration (NASA)

The National Aeronautics and Space Administration (NASA) supports informal STEM education and engagement in a variety of ways. The Teams Engaging Affiliate Museums and Informal Institutions (TEAM II) program, within the Office of STEM Engagement, provides support for museums and planetariums to enhance programs related to space exploration, aeronautics, space and earth science, or microgravity.

We request at least \$150 million for NASA’s Office of STEM Engagement, including at least \$20 million for the Teams Engaging Affiliate Museums and Informal Institutions (TEAM II) program.

In addition, NASA’s Science Mission Directorate supports museums and museum networks through its Science Activation program, which connects competitively selected teams across the country with NASA infrastructure teams. This program has engaged tens of millions of learner interactions in all 50 states. To continue the program’s evolution and strong reach nationwide, we request **at least \$48 million for the SciAct Program.**

Finally, we applaud the ways that the agency continues to make its data available to the public, allowing museums to engage their audiences with current observations and information.

National Oceanic and Atmospheric Administration (NOAA)

NOAA’s Office of Education offers two grant programs to advance education in areas relevant to NOAA’s mission, including support for museums, zoos, aquariums, and science centers. These programs help enhance the understanding and use of environmental information to promote informed decision-making by educators, students, and the public.

- The Bay Watershed Education and Training (B-WET) program promotes place-based experiential learning for K-12 students and related professional development for educators.
- Environmental Literacy grants support activities that inspire people to use Earth system science to improve ecosystem stewardship and increase resilience to environmental hazards, such as wildfires, droughts, hurricanes, tornadoes, and earthquakes. For more than 15 years, these grants have supported museum exhibitions, K-12 curricula, online education resources, citizen science activities, out-of-school programs, and professional development for educators.

As the need for enhanced education about our changing climate and community resilience increases, there is a need for a concurrent increase in the budget for the Office of Education. **We request at least \$38 million for NOAA’s Office of Education.**

We also underscore the important ways that NOAA promotes public engagement with science through other offices and programs, such as its support for citizen science.

In closing, we continue to thank the Subcommittee for all its support for a robust science and education budget. You have demonstrated your support for crucial programs that promote STEAM education for our nation's students. Like our organizations, you recognize these are vital investments in our future, and we thank you in advance for taking action accordingly.

Our organizations stand ready to be of service to your work. We are always happy to provide examples of the ways that museums are contributing to their communities and helping to advance local, regional, and national priorities. With our networks of thousands of community-based institutions, these examples can be in or near each Congressional district.

Founded in 1973, the **Association of Science and Technology Centers (ASTC)** is a network of more than 600 science and technology centers and museums, and allied organizations, engaging more than 110 million people annually across North America and in almost 50 countries. With its members and partners, ASTC works towards a vision of increased understanding of—and engagement with—science and technology among all people. www.astc.org



818 Connecticut Avenue, NW, Seventh Floor, Washington, DC 20006 • 202-783-7200 • info@astc.org

The **American Alliance of Museums (AAM)** has been bringing museums together since 1906, helping to develop standards and best practices, gathering and sharing knowledge, and providing advocacy on issues of concern to the entire museum community. Representing more than 35,000 individual museum professionals and volunteers, institutions, and corporate partners serving the museum field, the Alliance stands for the broad scope of the museum community. www.aam-us.org



2451 Crystal Drive, Suite 1005, Arlington, VA 22202 • 202-289-1818 • governmentrelations@aam-us.org

The **Association of Children's Museums (ACM)** champions children's museums and together enrich the lives of children worldwide. With more than 450 members in 50 states and 12 countries, ACM leverages the collective knowledge of children's museums through convening, sharing, and dissemination. www.childrensmuseums.org



2550 South Clark Street, Suite 600, Arlington, VA 22202 • 703-224-3100 • ACM@childrensmuseums.org

The **Association of Science Museum Directors (ASMD)** is a non-profit, professional association of more than 75 natural history and other science museum directors across the country. Our community of museum leaders provides a leading voice for science and science museums in the public sphere and addresses issues related to the advancement of our respective organizations to benefit society and the planet. www.asmd-us.org



870 South Lincoln Avenue, Springfield, IL 62704-2329 • 703-224-3100 • asmd.styles@gmail.com