



**Testimony of Laura L. Lott
President and CEO, American Alliance of Museums
to the
House Appropriations Subcommittee on Commerce, Justice, Science & Related Agencies
April 27, 2018**

Chairman Culberson, Ranking Member Serrano, and members of the Subcommittee, thank you for allowing me to submit this testimony. My name is Laura Lott and I serve as President and CEO of the American Alliance of Museums (AAM). We urge the Subcommittee to restore Fiscal Year (FY) 2019 funding for the Advancing Informal STEM Learning (AISL) program at the National Science Foundation (NSF) to at least \$65 million; provide funding for the NSF Directorates for Biological Sciences; Education and Human Resources; Geosciences; and Social, Behavioral and Economic Sciences to support museum research and collections, which are key to STEM education; and continue to fund informal STEM education programs at the National Aeronautics and Space Administration (NASA), the National Oceanic and Atmospheric Administration (NOAA), and the National Institutes of Health (NIH).

We also urge the Subcommittee to clearly direct NSF to return the focus of AISL in support of public engagement in science. This would reverse the trend of focusing AISL funding on formal (university-led) research at the expense of effective educational and public engagement programming conducted through museums.

Representing more than 35,000 individual museum professionals and volunteers, institutions—including aquariums, art museums, botanic gardens, children’s museums, cultural museums, historic sites, history museums, maritime museums, military museums, natural history museums, planetariums, presidential libraries, science and technology centers, and zoos—and corporate partners serving the museum field, the Alliance stands for the broad scope of the museum community.

Museums are essential in their communities for many reasons:

- Museums are economic engines and job creators. According to *Museums as Economic Engines: A National Report*, U.S. museums support more than 726,000 jobs and contribute \$50 billion to the U.S. economy per year. The economic activity of museums generates more than \$12 billion in tax revenue, one-third of it going to state and local governments. For example, the total financial impact that museums have on the economy in the state of Texas is \$3.9 billion, including supporting 62,013 jobs. For New York state it is a \$5.37 billion impact supporting 61,796 jobs. This impact is not limited to cities: more than 25% of museums are in rural areas.
- Museums are key education providers. Museums spend more than \$2 billion yearly on education activities; the typical museum devotes 75% of its education budget to K-12 students, and museums receive approximately 55 million visits each year from students in school groups. Children who visited a museum during kindergarten had higher achievement scores in reading, math and science in third grade than children who did not,

including children most at risk for delays in achievement. Also, students who attended a half-day field trip to an art museum experienced an increase in critical thinking skills, historical empathy and tolerance. For students from rural or high-poverty regions, the increase was even more significant. Museums help teach the state and local curriculum in subjects ranging from art and science to history, civics, and government. Museums have long served as a vital resource to homeschool learners. For the approximately 1.8 million students who are homeschooled—a population that has increased by 60% in the past decade—museums are quite literally the classroom. It is not surprising that in a 2017 public opinion survey, 97% of respondents agreed that museums were educational assets in their communities. The results were statistically identical regardless of political persuasion or community size.

The National Science Foundation is an independent federal agency responsible for about two-thirds of all federal funding for biological, geological and anthropological research at America's universities, science centers and other museums. NSF is also charged with promoting the vitality of the nation's STEM research and education enterprises.

The mission of NSF's Directorate for Education and Human Resources (EHR) is to achieve excellence in U.S. STEM education at all levels and in all settings (both formal and informal) in order to support the development of both a well-prepared workforce and a well-informed citizenry. EHR's Advancing Informal STEM Learning program invests in research and development of innovative and field-advancing, out-of-school STEM learning, and emerging STEM learning environments.

The NSF Directorates for Biological Sciences, Education and Human Resources, Geosciences, and Social, Behavioral & Economic Sciences have all supported museums in the areas of field and collections-based research, collections improvements and digitization, database development, and educational programming.

Millions of Americans of all ages and backgrounds learn about STEM each year by visiting museums, science centers, public gardens, zoos, and aquariums. Museum exhibitions and educational programs and resources are built on a firm foundation of research, and museum researchers make major original contributions to the understanding of important issues such as changes in climate, environments, biodiversity, and human culture. Informal STEM education programs at other federal agencies are also critical to helping museums attract, inspire, and educate the current and future STEM workforce.

NASA's Competitive Program for Science Museums, Planetariums, and NASA Visitor Centers (CP4SMPVC) is authorized by law and has helped the agency meet numerous goals identified in its strategic plan—including advancing the nation's STEM education and workforce pipeline. NASA has transitioned many of these activities into a new competitive grant program for museums, the Teams Engaging Affiliated Museums and Informal Institutions (TEAM II) program.

A number of vital NOAA programs—including the Competitive Education Grant Program and Bay Watershed Environmental Training (B-WET)—currently help zoos, aquariums, science centers, and other museums to bring real world examples of science to students nationwide.

NIH’s Science Education Partnership Awards (SEPA) program builds relationships that improve life science literacy nationwide.

What was true almost a decade ago, when the National Research Council of the National Academies released a report entitled Learning Science in Informal Environments: People, Places and Pursuits, is true today. Findings included:

- “Do people learn science in non-school settings? This is a critical question for policy makers, practitioners and researchers alike—and the answer is yes.”
- “Designed spaces—including museums, science centers, zoos, aquariums and environmental centers—can support science learning. Rich with real-world phenomena, these are places where people can pursue and develop science interests, engage in science inquiry, and reflect on their experiences through sense-making conversations.”
- “Informal environments can have a significant impact on science learning outcomes for individuals from non-dominant groups who are historically underrepresented in science.

Please consider this request in the context of the essential role that museums play in our nation, as well as their immense economic and educational impact. In closing, I highlight 2017 national public opinion polling that shows that 95 percent of voters would approve of lawmakers who acted to support museums and 96 percent want federal funding for museums to be maintained or increased. People love museums.

I want to acknowledge the difficult choices that the Subcommittee faces. I hope that my testimony has made it clear why these priorities are of critical importance to the nation and will provide a worthwhile return on investment to the American taxpayer. Thank you again for the opportunity to submit this testimony.

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