

**Testimony of the STEM Education Coalition
to the
House Committee on Appropriations Subcommittee on Commerce, Justice, Science, and
Related Agencies**

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The Science, Technology, Engineering, and Mathematics (STEM) Education Coalition represents the broadest and most unified voice in advocating for policies to improve STEM education at all levels. As an alliance of more than 500 business, professional, and education organizations, our Coalition works aggressively to raise awareness in Congress, the Administration, and other organizations about the critical role that STEM education plays in enabling the U.S. to remain the economic and technological leader of the global marketplace of the 21st century. **Our Coalition supports robust funding for the National Science Foundation's Education and Human Resources Directorate.** We also appreciate the opportunity to offer our views on this appropriation as well as on other issues related to STEM education that fall under the Subcommittee's purview.

The STEM Education Coalition's broad alliance advocates on behalf of policies to encourage and inspire more of our best and brightest students, especially those from underrepresented or disadvantaged groups, to study in STEM fields; improve the content knowledge and professional skills of the STEM educator workforce; recruit and retain highly-skilled STEM educators; improve the resources available for learning STEM subjects; and facilitate better coordination of efforts among federal agencies that provide STEM education programs.

Over the past several years, Congress has repeatedly demonstrated strong bipartisan support for increased investments to strengthen the U.S. STEM education pipeline. While we recognize the difficult choices that Congress faces in controlling the growth of federal deficits, debt, and spending, we are also concerned that some in the House and Senate would seek to significantly reduce funding for STEM education programs at the National Science Foundation (NSF), which have an adverse effect on U.S. competitiveness and on the ability of American students to compete in the global technological economy of the future.

The NSF has long-served as a catalyst for STEM education reform. NSF's Education and Human Resources (EHR) Directorate seeks to advance discovery and innovation at the frontiers of STEM learning and teaching; support the testing, assessment, study and evaluation of highly innovative models and approaches to learning; foster linkages between STEM education research and practice; and serve as the intellectual nexus that unites education research and evaluation activities across the Foundation and with other federal agencies. In short, NSF's EHR programs make the rest of the Federal government's investments in STEM education programs more effective and efficient.

For many years our Coalition has urged NSF to take a more proactive role in working to disseminate the knowledge embodied in their grant-funded educational programs into practice so that the best new educational strategies and materials can be produced and available to K-12 educators. One example is the recent NSF initiatives with the NRC report, *Successful K-12 STEM Schools*.

Our Coalition also supports the effective partnerships and work being done between the agency and the Department of Education on key STEM initiatives. The work of these two agencies is fundamental to the success of STEM education. We also support the current comprehensive efforts underway by the OSTP to streamline the federal STEM education programs at NSF, the Department of Education and the mission agencies. The STEM Education Coalition has strongly advocates that the federal agencies with STEM programs coordinate, evaluate, and review all such programs on a regular basis to ensure that effective programs are scaled up and that underperforming programs are improved or eliminated.

We encourage the Subcommittees continuing efforts to aggressively pursue its oversight role in ensuring that STEM education programs across the federal science agencies are focused on producing sound results that will contribute to student achievement.

Finally, as the Subcommittee looks to foster the improvement of educational programs at the National Science Foundation and at other federal science agencies under its jurisdiction, we would like to offer a number of broader policy recommendations related to STEM education:

- Our Coalition supports an inclusive definition of the term “STEM” education by federal programs that is not limited to math and science, but embraces each STEM discipline and its unique needs.
- Our Coalition supports efforts to expand the diversity of the STEM pipeline and workforce, including targeted initiatives to promote the inclusion of underrepresented minorities and women in STEM fields.
- Our Coalition supports a strong emphasis in learning environments on hands-on, experiential, inquiry-based and learner-centered student experiences and activities, including engineering design processes.

- Our Coalition supports incentives to promote business community engagement in STEM education activities at every level, including tax incentives for donations of equipment, training and services, and access to facilities.
- Our Coalition supports integration of STEM-focused activities in federal programs directed at learning environments outside the K-12 classroom, such as afterschool and summer community-based programs, universities and other higher education entities, community colleges, and workforce and job training programs.

We thank you for the opportunity to offer these recommendations and for your consideration.