

I and others are contacting you and your marine science and education colleagues to ask for your IMMEDIATE help on matters related to the future of STEM Education in NOAA, NASA, and NSF.

Senator Brian Schatz (D-HI) and others are cosponsoring a Senate Dear Colleague Letter asking the Senate Commerce, Justice, and Science Appropriations Subcommittee to restore STEM education programming to NOAA, NASA, and NSF. This overall STEM ed restoration effort involves the participation of a number of other like-minded organizations including: the Sea Grant Association, the National Association of Marine Laboratories (NAML), the Centers for Ocean Sciences Education and Excellence (COSEE), the National Estuarine Research Reserve Association (NERRA), the Association of Science-Technology Centers (ASTC), the Association of Zoos and Aquariums (AZA), the Association of Public Universities and Land Grant Colleges (APLU), the Campaign for Environmental Literacy, and others. Their members are also being contacted right now and are being asked to support this Senate Dear Colleague Letter to restore STEM ed at NOAA, NASA, and NSF.

The Senate CJS Appropriations Subcommittee will likely decide the fate of these programs when they mark up their bill in mid-July.

Your help in getting a bipartisan group of Senators to sign onto the Schatz letter is needed now for the success of this restoration effort. Therefore, we ask you and/or your relevant STEM education stakeholders to immediately contact (by phone, email or fax) your state's U.S. Senators and ask them to sign onto the Schatz STEM Ed Consolidation Letter. Attached is ... [a draft of the kind of note or letter](#) members of the Sea Grant network are using to communicate with their Senators about this issue. You should adjust the "Sea Grant" note according to suit your own specific interests.

If you [click here](#), this will give you a directory of Senators and their contact information. Contact YOUR Senators' offices now, indicate you are a constituent, and provide some information on why these programs should remain funded and operated within their current agencies and explicitly ask them to sign onto the Schatz Dear Colleague Letter related to STEM education. You can let them know that James Chang (James\_Chang@schatz.senate.gov) 202-224-7365 (desk), or 571-243-2893 (cell) is the staff contact in Senator Schatz' office who is coordinating the signatures to the letter. Signatures will be accepted until June 26th so time is of the essence.

This is an opportunity to help those in the Senate who are working to preserve these many important STEM education programs within the agencies they are currently housed. Therefore, please [contact](#) your two United States Senators' offices – and if you have the opportunity direct the request within the Senators' office, direct it to either the staff person who covers the Senate CJS appropriations bill and/or the staff person who covers education in the office. As we said, James Chang (James\_Chang@schatz.senate.gov 202-224-7365 (desk), or 571-243-2893 (cell) is the staff contact in Senator Schatz' office who is coordinating the signatures to the letter. Signatures will be accepted until June 26th so time is of the essence.

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Background Regarding the Administration's STEM education consolidation plans:

NASA STEM education programming would decline by 33% impacting 37 NASA STEM education programs. The Administration's plan includes a \$16 million reduction in the NASA Space Grant program and a \$9 million reduction in the NASA Experimental Program to Stimulate Competitive Research (EPSCoR) program. The NASA STEM Education and Accountability programs, including the Minority University Research and Education Program (MUREP) and STEM Education and Accountability Projects (SEA) would be reduced by nearly \$20 million. Education activities within the Mission Directorates are zeroed out in all but the Space Technology Directorate.

Within NOAA, the Administration's plan would, among other changes: reduce \$4 million from the National Sea Grant College Program (resulting in a termination of the Knauss Public Policy Fellowships, Sea Grant/NMFS Graduate Fellowship Program, and K-12 STEM activities) and \$5.1 million from the Competitive Education Grants (including Environmental Literacy Grants). The NOAA Teacher at Sea Program would be eliminated as would the education activities within the NOAA Office of Ocean Exploration and Research. The Ocean Education Grants Program, which would be eliminated under the President's proposal, brings students closer to science by providing them with the opportunity to learn firsthand about the world's marine resources. Through this program, aquariums work closely with federal, state, and local partners on projects with long lasting benefits for both students and their communities.

As schools face increased budgetary pressures, these types of education programs will become even more important in ensuring that American schoolchildren receive the necessary foundation in science education to be competitive in the 21st century global economy. These programs focus on ocean and climate education, allow the public and private sectors to work together to educate the nation's children, and bring tremendous assets and tools to their environmental education work which no other agency can provide. At the same time, it is difficult to imagine another agency being able to help prime the pipeline to serve NOAA's future workforce and the related workforce in state and local governments, non-governmental organizations and the private sector who are grappling with issues related to severe weather, flooding, drought, coastal erosion, sea level rise ocean acidification, overfishing and more.

NSF's longstanding leading role in providing competitive, merit-based support for informal science education would decline by 22% or \$14 million. NSF's Advancing Informal STEM Learning (AISL) program supports innovation in anywhere, anytime, lifelong learning through investments in research, development, infrastructure, and capacity-building for STEM learning outside formal school settings. Awards in the AISL program must address how the research and development in their projects advance the field of informal STEM learning, provide innovation at the frontier of informal learning, and/or broaden participation to provide greater access to STEM-learning opportunities for underserved audiences such as racial and ethnic minorities, women and girls, and those with disabilities or learning differences.

Increasing access to formal and informal science education opportunities has never been more important. The need for high quality STEM education has been touted by numerous reports that link our Nation's future economic success and security to a highly skilled STEM workforce. National studies and international comparisons have repeatedly shown that American schoolchildren are lagging behind their international peers and that STEM education in the United States needs to be improved. The December 2011 report from the interagency committee on STEM education said:

...Our analysis indicates that the critical issue related to Federal investments in STEM education is not whether the total number of investments is too large or whether today's programs are overly redundant with one another. Rather, the primary issue is how to strategically focus the limited Federal dollars available so they will have a more significant impact in areas of national priority. (emphasis added)

Each of the STEM education programs highlighted above has a proven track record of success and is closely tied to and highly integrated within the vital missions of their respective agencies. Each of these STEM education programs not only contributes to the improvement of the quality of STEM education provided to the current and future technical workforce needed by this country, but also directly supports the long term strategic needs of these agencies. In that way these programs use their limited resources to maximize their impact in areas of national importance.

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