

Transcript from a portion of the Full Committee Hearing - STEM Education: The Administration's Proposed Reorganization
2318 Rayburn House Office Building Washington, D.C. 20515 | Jun 4, 2013 2:00pm

SB: Suzanne Bonamici, 1st District Oregon

FM: Dr. Joan Ferrini-Mundy, Assistant Director, Directorate for Education and Human Resources, National Science Foundation

JH: The Honorable John Holdren, Director, Office of Science and Technology Policy, Executive Office of the President

SB: Thank you Mr. Chairman, thank you so much to all the witnesses for your testimony about what we can do, what the Federal Government can do, to do better with STEM. This is a proposed reorganization, and it's change...change is difficult, there's a lot of change here.

An important part of this conversation is how to make STEM instruction and programming engaging and more effective, and I join the growing group of stakeholders who submit that integrating the arts and design into STEM, that makes STEAM can help make the difference. This is especially compelling when we're talking about how to engage underserved populations, including females and minorities traditionally not involved in STEM.

I'm pleased that the NSF has funded the S-E-A-D Network, ah, Network, which stands for sciences, engineering, arts and design. The group's in the midst of some fascinating work on the integration of the disciplines.

Also recent research to Michigan State University, Dr. Ferrini-Mundy, it's maybe your former colleagues. Professors found that there are 14 measurable skills linked to success in sciences that are directly linked to arts education. This is about using both halves of the brain, and innovation. Those skills include observing, imaging and visualization, abstracting, pattern recognition and pattern invention, analogizing, dimensional thinking, transforming data into visual or graphic forms, converting theories into mechanical procedures, and more.

So, when developing this reorganization proposal, did the administration consider innovative approaches that include multidisciplinary collaboration in order to encourage traditionally under represented groups to become more involved in STEM education programs?

JH: I guess I'm supposed to take the first crack at that. Certainly we looked at a variety of issues around traditionally under represented groups and one of the decisions we made is, for now, there are no changes being proposed in the range of programs that explicitly address minorities and other underserved groups in the STEM domain. We think that to the extent that those programs need a closer look it should be done in close collaboration with the institutions that provide those programs, so that's something that is a task, going forward.

FM: Yes, thank you. I think both within, certainly in the CoSTEM plan, and in the proposed reorganization the focus on engagement is the place where there will be enough space and

opportunity, I think, to really explore these exciting connections with the arts. We at the National Science Foundation are engaged in some discussions with NEH and NEA at this time, to think about what it might look like to fund some explorations in the role of the arts in promoting STEM education. So, I think we have the infrastructure in place in the re-org, to be able to take up these questions within the engagement component.

SB: Thank you very much. And I also want to ask about a program that's being used by the Oregon Health and Science University, that's the Science Education Partnership Award. I think it's called SEPA. This program that's administered by NIH funds innovative K12 and informational science education, health education projects. In Oregon, there's a program called "Let's Get Healthy," it's been a success since it began in 2007, and provides valuable education about diet and nutrition at health fairs in underserved communities. So OHU, the university, has used grant money through SEPA to fund these programs, and with this consolidation, there's some concerns raised in the health community about shifting authority to NSF, the Department of Education, and the Smithsonian, that don't have a public health focus. So can you talk a little about SEPA under the reorganization, and additionally, if a program like "Let's Get Healthy" is shifted to the Smithsonian, how would states apply for grants, considering the Smithsonian lacks authority to issue grants?

JH: I guess in terms of the details, of exactly how these collaborative activities would work under the new structure, I have to say that is something that is being worked out, we are working on it in the CoSTEM committee, and we are determined to figure it out in a manner that will not lose the effectiveness of the engagement programs that already exist. And again, we have the commitments of all concerned, we had as recently as last Thursday, a meeting of the full CoSTEM in which all of the relevant departments and agencies were represented. We talked about this in detail and the folks around the table were in agreement that we will be able to work together to ensure that the implementation details are developed in a way that preserve these important functions. That is our commitment, that is our determination.

SB: Thank you and I see that my time has expired. I yield back, thank you Mr. Chairman.

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