

**COMMITTEE ON EQUAL OPPORTUNITIES IN  
SCIENCE AND ENGINEERING (CEOSE)  
National Science Foundation**

**CEOSE 2017 February Meeting  
February 9 - 10, 2017**

**MEETING MINUTES**

**MEETING PARTICIPANTS**

**CEOSE Members Present**

**Dr. Ira Harkavy, CEOSE Chair**, University of Pennsylvania, Philadelphia, PA  
**Dr. Louis Martin-Vega, CEOSE Vice Chair**, North Carolina State University  
**Dr. Mary M Atwater**, The University of Georgia  
**Dr. Nancy Cantor**, Rutgers University – Newark  
**Dr. Jose Fuentes**, Pennsylvania State University  
**Dr. C. Michael Gooden**, Integrated Systems Analysts, Inc.  
**Dr. Charles Isbell**, Georgia Institute of Technology, GA  
**Dr. Robert Jones**, University of Illinois, IL  
**Dr. Alicia Knoedler**, University of Oklahoma  
**Dr. Daniela Marghitu**, Auburn University  
**Dr. Robert Eugene Megginson**, University of Michigan  
**Dr. Loretta Moore**, Jackson State University  
**Dr. Lydia Villa-Komaroff**, Cytonome/ST  
**Dr. Nai-Chang Yeh**, California Institute of Technology

**CEOSE Members Absent**

**Dr. Garikai Campbell**, Morehouse College  
**Dr. Peter Eden**, Landmark College

**Federal Agency Liaisons Present**

**Dr. Shahin Nemazee**, Smithsonian Institution  
**Dr. Lisa Evans**, U.S. National Institutes of Health (NIH)  
**Dr. Jim Johnson**, U.S. Environmental Protection Agency (EPA)

**Speakers/Panelists**

**Dr. Suzanne Iacono**, CEOSE Executive Liaison and Head of Office of Integrative Activities (OIA)/  
Office of Director (OD)/NSF  
**Dr. Roger Wakimoto**, Assistant Director, Directorate for Geosciences (GEO)/NSF  
**Dr. Joan Ferrini-Mundy**, Assistant Director/Directorate of Education and Human Resources (EHR)/NSF  
**Dr. Barry Johnson**, Acting Assistant Director, ENG/NSF

## **CEOSE Designated Federal Officer – Executive Liaison**

**Dr. Suzanne Iacono**, Office Head, OIA/OD/NSF

## **CEOSE Executive Secretary**

**Dr. Bernice Anderson**, Senior Advisor, OIA/OD/NSF

## **CEOSE Scientific/Technical/Administrative Staff**

**Dr. Joan Burrelli**, Science Resources Analyst, OIA/OD/NSF

**Ms. Victoria Fung**, Program Analyst, OIA/OD/NSF

**Mr. Steven Buhneing**, Communication Specialist, OIA/OD/NSF

## **1<sup>st</sup> Day, February 9, 2017**

### **Welcome/Introductions**

Dr. Louis Martin-Vega, Vice-Chair of CEOSE, opened CEOSE's first meeting of 2017 with a welcome to all those present as well as the three members participating virtually. He asked members to introduce themselves and then made several announcements regarding signing in, lunch, and captioning.

### **Report from Executive Meeting with NSF Leadership**

The Vice-Chair reported on the February 6 executive teleconference with Dr. Cordova, in which she expressed tremendous support for CEOSE, noting that she is looking forward to CEOSE's guidance on how to infuse broadening participation into NSF's 10 Big Ideas and to CEOSE's FY 2015-16 report, especially the chapter on accountability. Other topics of the teleconference included the numerous leadership changes at NSF and the uncertainty regarding the budget.

### **NSF Budget Update**

Dr. Michael Sieverts, Division Director of NSF's Budget Division, gave an overview of the current and future budget situation at NSF. He showed trends in NSF's budget over time, noting that from FY 2000 to FY 2010, NSF's budget grew roughly 5% per year, but that since then, the budget has been relatively flat. The FY 2017 House and Senate NSF appropriation bills, which have not yet been passed, fund NSF at a slightly lower level than in FY 2016. He noted that NSF is moving in August and that the relocation funds in the appropriation bills are 10% (or \$33 million) less than NSF requested. NSF is currently being funded through a continuing resolution that lasts until April 28.

### **NSF Executive Liaison Report**

Dr. Suzanne Iacono, CEOSE Executive Liaison, reported on her participation in the recent (December 2016) Colloquium on Reducing Implicit Bias at AAAS Headquarters which focused on what federal agencies are doing to reduce bias and on the Interagency Policy Group's report on Increasing Diversity in the STEM Workforce, which identified best practices, promising practices, and emerging best practices. Dr. Iacono then informed CEOSE about the new Merit Review Pilot: Reviewer Orientation which is designed to improve the quality of reviews and reduce confusion about the broader impacts criterion. The new orientation will take place before the reviewers read the proposals

and will be in a standardized format to reduce variation across the foundation. The orientation, via webinar, will provide tips on writing reviews, strategies to reduce implicit bias, and clarification about broader impacts. Other updates included a recently funded study by the National Academy of Sciences on the impact of sexual harassment in academia on careers of women in STEM and the recent NSF INCLUDES PI meeting.

### **NSF Big Ideas: INCLUDES (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science)**

Dr. Joan Ferrini-Mundy, Acting Chief Operating Officer, OD and Dr. Suzanne Iacono, Head of the Office of Integrative Activities gave a brief summary of current and future activities of the NSF INCLUDES initiative:

- The first NSF INCLUDES launch pilots (a total of 40) were funded in FY 2016 and early 2017.
- In January, 186 PIs from all 40 of the launch pilots met for 3 days to share information, highlight projects, and network.
- Conferences for launch pilot PIs are being held this year to inform backbone organizations, to provide input before the solicitation for alliances comes out, and to emphasize the need for close facilitation of networking among all participants.
- NSF funded NORC and TERC to develop an INCLUDES video showcase activity.
- Portfolio analysis of the launch pilots reveals the diversity of the projects in terms of discipline, focus, geography, and type of institution.
- In December 2016 and January 2017, webinars were held with more than 500 participants interested in learning more about how NSF INCLUDES will work to facilitate partnerships, communication and cooperation to broaden participation in science and engineering.
- Preliminary proposals for the second round of launch pilots are due on February 14; full proposals from those who submitted successful preliminary proposals will be expected by mid-May.
- Solicitations for backbone organizations and alliances will be out by the end of the year.
- Future on-ramping activities include common training for those interested in INCLUDES and engaging large centers.
- Challenges going forward include developing an engagement strategy, especially if the pilot does not become an Alliance, and developing a measurement strategy across the Foundation.

CEOSE members appreciated the updates and were glad that INCLUDES is generating a level of excitement and discussion comparable to NSF large-scale science initiatives. They expressed the need to make sure that INCLUDES efforts reach out to NSF centers directors and to leverage centers networks. They also questioned how to get people, notably those not normally involved in NSF, aware of available funding. A focus of CEOSE discussion was the idea that broadening participation

is a part of doing better science, not just an impact, and that innovative science needs a diversity of ideas which comes from a diversity of people.

### **Working Session I: Accountability Workshop, Workshop Report, and CEOSE Biennial Report**

CEOSE members reviewed the draft report of the 2016 NSF-funded Accountability Workshop. One area of focus was the relationship between the workshop report, which is not a CEOSE product, and the CEOSE report. It was agreed that some issues, but not all, in the workshop report would be included in the CEOSE report and that the language would not necessarily be the same. Members thought the CEOSE report should include ideas that NSF could respond to and some thought that CEOSE may want to highlight arguments used in the Workshop Report such as the need to produce excellent science through broadening participation. Another thought was that CEOSE may also want to make the point that we need to make the labor force more competitive through better education and especially better STEM education to benefit the economy and make the US greater.

### **Working Session II: 2015 – 2016 CEOSE Biennial Report to Congress**

CEOSE members reviewed a draft of Chapter 3 of their upcoming report to Congress. Members felt that the recommendations should not be too prescriptive; that social science research should be involved in evaluation of broadening participation; that broadening participation should be thought of as a part of intellectual merit; and that accountability needs to take into account local conditions. They resolved that they could keep the term “science of broadening participation” but should add an explanation. Members also elaborated on the goal of “democratizing science” emphasizing that the focus should be on how to do the best science possible by bringing everyone into it. Members of the drafting subcommittee promised a new draft based on the discussion that would be available for discussion by the following day.

### **Topics for Discussion with NSF Director**

Prior to adjournment for the day, CEOSE members discussed possible topics for discussion with the NSF Director, including: the relationship between INCLUDES and NSF’s broadening participation portfolio; discussion of the 10 Big Ideas and how INCLUDES can be part of the other 9; discussion of a few of the key points in the CEOSE 2015-16 report; and discussion of the next steps for CEOSE going forward.

## **2nd Day, February 9, 2017**

### **Opening Remarks**

Dr. Ira Harkavy, the CEOSE Chair, welcomed members and guests and reiterated the plan for the discussion with the NSF director. He also noted that feedback on the revised report should be in by March 1. Following feedback, the committee will work on the summary document and on developing a list for distribution. The final report and flyer should be available by the June meeting.

## **NSF Big Idea: Navigating the New Arctic**

Dr. Roger Wakimoto, Assistant Director of the Geosciences Directorate, briefed the committee on Navigating the New Arctic, one of the NSF 10 Big Ideas. He discussed several of the challenges in the arctic, including the growing ice free zones' effects on ecosystems, individuals, organizations, and communities, the economy, national security, competition for natural resources, shipping lanes, tourism, etc. Potential partners for the initiative include 16 federal agencies, Alaska Native tribes and organizations, international partners, Alaska state agencies, NGOs, along with shipping, oil and gas, timber, tourism, and fisheries industries. The initiative includes indigenous people in observational science and in the research agenda, and has a strong commitment to developing the next generation of polar scientists, engineers, and educators.

CEOSE discussion included an appreciation of including the native perspective in the initiative and the emphasis on place-based and problem-driven research and indigenous knowledge systems. Members expressed the need to expand participation to all underrepresented groups, including persons with disabilities, not just indigenous people, and offered several suggestions for research and researchers working in relevant areas.

## **Working Session III: 2015 – 2016 CEOSE Biennial Report to Congress (cont'd)**

Members were given a revised draft of chapter 3 based on the previous day's discussion and offered further suggestions for clarity and tone, including clarifying how institutions can be held accountable, with the emphasis on accountability for creating an environment and contributing to success of broadening participation in the aggregate. After considerable discussion, there was unanimous agreement on the content and language in chapter 3. The report drafting subcommittee agreed to share a final version of chapter 3 by April, so that members could have another opportunity for comment.

## **Discussion about Future Plans for CEOSE**

Several items emerged in the discussion of future plans for CEOSE, including: continued discussion of NSF 10 Big Ideas, a panel of institutional leaders on accountability, highlights of success stories, and the impacts of the accountability report on NSF.

A discussion of the focus of the 2017-18 report should take place at the June 2017 meeting. Members agreed that they would like to hear at their June meeting from someone regarding the Work at the Human-Technology Frontier: Shaping the Future initiative (one of the 10 Big Ideas) and its relationship to broadening participation, particularly for persons with disabilities.

## **Discussion of Federal Liaisons Reports by CEOSE Federal Liaisons**

Dr. Jim Johnson of EPA, Dr. Shahin Nemazee, of the Smithsonian, and Dr. Lisa Evans of NIH updated the committee on what their agencies are doing with regard to broadening participation. Highlights included a number of diversity outreach activities by EPA, programs at the Smithsonian targeting persons with disabilities and pre-K youth; and a new NIH website for extramural diversity (<https://extramural-diversity.nih.gov/>).

## **Discussion of the Committee Reports by CEOSE Liaisons to NSF Advisory Committees**

CEOSE Liaisons to NSF Advisory Committees reported on meetings of the Business and Operations, CISE, MPS, OISE, GEO, SBE, and ENG Advisory Committees. Highlights included: the need for better data on the diversity of reviewers, PIs, and Co-PIs; the November 2016 workshop “Funding S&T in Africa”; the importance of US/China collaboration; the need for NSF to improve sharing of information with the community; discussion by the advisory committees of how INCLUDES could be incorporated in the other 9 Big Ideas; the new program director for education and diversity in GEO; and the near absence of proposals from underrepresented groups in atmospheric sciences.

## **Meeting with NSF Director**

Following a welcome from the CEOSE Chair and introductions by CEOSE members, Dr. Córdova thanked CEOSE for their hard work. Her remarks to the committee included the lack of a FY 2017 budget, changes in senior staff at NSF, her recent travels, e.g., the Washington Auto Show and the World Economic Forum 2017 in Davos, Switzerland, and the need to get out the message that NSF funded research undergirds advancements in science and is important to the US economy, jobs, health, and defense. She stressed that NSF needs to model diversity so that others can follow. She mentioned two recent roundtables in California at which INCLUDES participants shared their experiences.

CEOSE members were pleased to see the integration of INCLUDES and other current NSF broadening participation programs, as well as the inclusion of broadening participation, in the 10 Big Ideas. They stressed though that there is a need to include diverse people in projects whether or not they are affected by the project and they expressed the need to impress on PIs that broadening participation is important to intellectual merit. They asked how INCLUDES can be used to enhance the diversity of staff in national centers and how INCLUDES can be incorporated into the other nine Big Ideas. Members also updated the Director about their 2015-16 Report to Congress that focuses on accountability and the need for a framework that ensures shared responsibility between/among PIs, institutions and NSF to produce excellent science by utilizing all the talent that the nation has to offer. They also brought up that CEOSE would like to see something on the Human-Technology interface at their next meeting, especially as it relates to increasing the participation of persons with disabilities and they noted a need for a mentorship network to help people submit better proposals.

Dr. Córdova appreciated CEOSE’s input, agreed that NSF-funded centers are a good place to encourage a conversation about what they can do about diversity in staffing and programming. She expressed support of an ongoing dialogue among stakeholders wherein accountability is portrayed as a carrot rather than a stick, shining a spotlight on successful universities, companies, programs, activities, etc. She emphasized that INCLUDES and interfaces among the 10 Big Ideas are ongoing learning experiments.

## **Announcements and Final Remarks**

The next CEOSE meeting will be held June 8-9, 2017 and will focus on Human-Technology Frontiers, the finished 2014-15 CEOSE Report to Congress, and the summary and mailout. Members will review all four chapters by March 1.

## **ADJOURNMENT**

The meeting adjourned at 5:15.