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

CEOSE 2016 October Meeting October 13-14, 2016

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. Garikai Campbell, Morehouse College Dr. Nancy Cantor, Rutgers University – Newark Dr. Jose Fuentes, Pennsylvania State University 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 Dr. Peter Eden, Landmark College (Virtual Participant)

CEOSE Members Absent

Dr. C. Michael Gooden, Integrated Systems Analysts, Inc.

Federal Agency Liaisons Present

Dr. Shahin Nemazee, Smithsonian Institution **Dr. Susan Heller-Zeisler**, National Institute of Standards & Technology (NIST) – PPT Provided

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. Grace Wang, Acting Assistant Director, ENG/NSF
Dr. Cynthia Phillips, Evaluator, Evaluation and Assessment Capability (EAC)/OIA/OD/NSF
EAC Contractors:
Windrose Vision - Robin Pugh Yi, Espen Matel, Steven Wallace, and Madeleine Wallace
2M Research Services - Stephane Baldi, Kimberly Raue, and Nicole Togno
Equal Measure - Lisa Aponte-Soto
Westat - Gary Silverstein
EDC - Leslie Goodyear add Steve Meacham
Dr. Stephen Meacham, Senior Staff Associate, OIA/OD/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

 $\label{eq:main_second} \textbf{Mr. Patrick Southern, } Program Specialist , OIA/OD/NSF$

1st Day, October 13, 2016

Welcome/Introductions

Dr. Ira Harkavy, CEOSE Chair, welcomed the committee and visitors and noted a recent New York Times article [http://www.nytimes.com/2016/09/29/upshot/an-online-education-breakthrough-a-masters-degree-for-a-mere-7000.html?_r=0] on CEOSE member Charles Isbell. CEOSE members introduced themselves and Dr. Harkavy made several announcements regarding meeting logistics.

NSF CEOSE Executive Liaison Report

Dr. Suzi Iacono, CEOSE Executive Liaison, briefed the committee on the 2017 budget request to Congress, the Federal Employee Viewpoint Survey (FEVS), NSF 10 "Big Ideas," and several other news items:

- The 2017 budget request is for roughly \$8 billion dollars, most of which flows through NSF to universities. Although Senate and House appropriations bills for NSF were approved at the committee level in April and May 2016, respectively, the Federal government, including NSF, is operating under a continuing resolution through Dec. 9.
- The NSF relocation to Alexandria is scheduled for September 2017.

- NSF did well in the 2016 FEVS survey, ranking 9th among medium size agencies, and ranking higher than average on employee engagement, global satisfaction, and inclusion.
- The NSF 10 "Big Ideas" highlighted were Harnessing Data for 21st Century Science and Engineering; Shaping the New Human/Technology Frontier; Understanding the Rules of Life: Predicting Phenotype; The Quantum Leap: Leading the Next Quantum Revolution; Navigating the New Arctic; and Windows on the Universe: Multi-Messenger Astrophysics; Growing Convergent Research at NSF; Mid-scale Research Infrastructure; NSF 2050: The Integrative Foundational Fund, and NSF INCLUDES (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science).

Other notable news items included: a speech by President Obama that included broadening participation among examples of leadership in science, technology, and innovation; the inventory of NSF actions to reduce bias

(https://www.nsf.gov/od/broadeningparticipation/nsf_reducing_bias_summary_agency_final_report_ 160616.pdf), an NSF funded National Academy of Sciences study on sexual harassment; a speech to a National Academies panel by Dr. Cordova, that mentioned the Career Life Balance Initiative, ADVANCE, and INCLUDES; and the NSF Dear Colleague Letter—Strengthening Capacity at HBCUs, which resulted in 17 EAGER awards and 90 supplements.

In response, CEOSE members thought the NSF 10 "Big Ideas" might be a topic for the February 2017 CEOSE meeting.

Reports by the CEOSE Liaison to NSF Advisory Committees and the CEOSE Federal Liaisons

Dr. Charles Isbell reported that the ERE Advisory Committee recently shifted directions to focus on big research ideas and that the committee discussed smart cities and smart communities, emphasizing the need to bring in all to the discussion.

Dr. Louis Martin-Vega reported that he will be updating the Engineering Directorate's Advisory Committee on INCLUDES and providing information on the accountability workshop.

Dr. Nai-Chang Yeh provided a report on the June meeting of the Advisory Committee for International Science and Engineering, at which the advisory committee recommended, among other things, greater evaluation and assessment efforts of student outcomes and career trajectories.

Dr. Shahin Nemazee of the Smithsonian Institute announced that the Smithsonian will have a report in the first quarter of FY17 documenting its education and outreach efforts and that the Smithsonian had a booth at the recent Hispanic Association of Colleges and Universities annual conference. He highlighted STEM-related topics at the recently opened National Museum of African American History and the American History museum's Spark Lab (aimed at 5-15 year olds) and Wonderplace aimed at 2 year olds.

Susan Zeiler, of the National Institute of Standards and Technology (NIST), did not attend the meeting, but submitted a report on NIST's education and outreach activities, including booths and presentations at conferences and events emphasizing specific underrepresented groups in STEM, Webinars, and visits by NIST staff to minority serving institutions.

Updates on NSF INCLUDES (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science)

Drs. Joan Ferrini-Mundy, Suzi Iacono, Grace Wang, and Roger Wakimoto briefed the committee on recent developments in the NSF INCLUDES initiative. As of the 4th quarter, 37 launch pilots and 11 conference grants had been awarded, and they anticipate 3 more launch pilots and 2 more conference awards. The awards were diverse in terms of institutions, education level focus, proposed methodology, disciplinary focus, targeted groups, high level themes, clusters of activities, and geographic distribution. Upcoming activities include: the Launch Pilot webinar; an INCLUDES PI meeting; new solicitations for launch pilots, alliances and a national backbone organization to be issued in FY 2017; and the discussion of evaluation, data collection, and implementation research. CEOSE members were encouraged to attend one or two of the workshops/conferences focused on designing the backbone infrastructure.

CEOSE discussion of INCLUDES centered on the small number of awards focusing on persons with disabilities, the number of the awards focused on studying broadening participation, and how INCLUDES relates to current NSF programs. CEOSE would like to have a more detailed assessment of the awards portfolio at the next CEOSE meeting and they would like for the discussion at the next meeting to include the relationship of the NSF 10 "Big Ideas" to broadening participation.

Panel Discussion: Technical Assistance and Evaluation Activities for INCLUDES

Drs. Cynthia Phillips of the Evaluation and Assessment Capability unit of the NSF Office of Integrative Activities, Leslie Goodyear of EDC, and Stephane Baldi of 2M Research Services briefed the committee on current and future evaluation activities for INCLUDES. EDC, Westat and Equal Measure will provide technical assistance, including evaluation capacity building, to the launch pilot awardees and 2M will conduct the formative program evaluation to address the processes and outcomes of NSF INCLUDES initiative.

CEOSE discussion centered around the need to link to existing efforts, the need to build university capacity to do evaluation, the question of how to frame affinity groups, how to get PIs and evaluators on board with culturally responsive evaluation, how to evaluate the partnerships, and how to know if the project will move the needle.

Presentation: NSF Strategic Plan

Dr. Stephen Meacham, of the NSF Office of Integrative Activities, discussed the proposed NSF Strategic Plan 2018-2022, which will be delivered to the Office of Management and Budget in late May 2017. NSF is asking for Advisory Committee input (as well as input from professional societies, universities, and other organizations) on the plan. He encouraged CEOSE to provide input on key elements (vision, core values, strategic goals, strategic objectives, and management objectives) either as a group or as individuals through the website

<u>https://www.nsf.gov/od/oia/strategicplan/feedback.jsp</u> or to strategicplan@nsf.gov within the next four weeks.

Discussion: 2015-2016 CEOSE Biennial Report to Congress and Dissemination Flyer

The focus of Chapter 3 of the 2015-2016 CEOSE Biennial Report to Congress is on CEOSE's recommendations for developing an accountability system for broadening participation. CEOSE members discussed how chapter 3 of the report to Congress would be informed by the Accountability Workshop. They agreed that the chapter would not be a practical guide to accountability, but that it should address the next steps in the process, that is how to make accountability productive and how to strengthen the community, and it should address the desired future state of accountability for broadening participation. They also thought that NSF INCLUDES is not the bold new initiative itself called for in their 2011-2012 report to Congress, but that it is a first step.

<u>2nd Day, October 14, 2016</u> Opening Remarks and Reflections

Dr. Ira Harkavy opened the second day with a call for general reflections about the Accountability Workshop. Discussion topics included the use of technology to interact with workshop participants in the future and to create a learning community, the importance of unspoken assumptions, the need for cultural change, and how to help NSF use the levers that it has to effect change. CEOSE members agreed that it is important to document what CEOSE believes needs to happen and what its values and goals are: that broadening participation results in better science, that democracy is a core value, that broadening participation is a question of intellectual merit, that we need to learn from implementation, and that diverse voices need to be heard from the populations involved, from the broadening participation community, from institutions, and from other agencies.

Working Session: Chapter Three of the 2015-2016 CEOSE Biennial Report to Congress

The committee divided up into four groups to discuss issues that need to be addressed in the chapter: context setting, key elements of an accountability system, principles and barriers for developing an accountability system, and what NSF and CEOSE should do to encourage accountability. Members thought that what is needed is to change the mind set around broadening participation so that it is strengthened as a core value and as part of intellectual merit. They also emphasized the need for shared learning about what does and does not work and the need for impactful efforts. Further discussion centered on ways in which institutional commitment to broadening participation could be part of the evaluation process, how to increase submission of proposals from underrepresented groups, the need to change institutional cultures vis a vis broadening participation and accountability, and the need to reduce barriers to broadening participation (such as changing expectations of who can do science, lack of contacts, high teaching loads, implicit bias, lack of awareness of programs, expertise, things that work, hidden channels, and lack of expertise). In discussing what NSF could do to encourage accountability, they suggested having a technical assistance corps to help PIs develop a broadening participation plan, and they discussed ways in which universities could be encouraged and held accountable for providing institutional support for broadening participation that reaches down to the individual PI.

ADJOURNMENT

The meeting adjourned at 5:15.