

**Committee on Equal Opportunities in Science and Engineering (CEOSE)
Meeting Minutes
October 29 - 30, 2020
National Science Foundation
Alexandria, VA 22314**

MEETING PARTICIPANTS

CEOSE Members Present

Dr. Jose D. Fuentes, CEOSE Chair, Pennsylvania State University
Dr. Alicia Knoedler, CEOSE Vice Chair, Exaptive, Inc.
Dr. Gilda Barabino, Oberlin College of Engineering
Dr. Suzanne, Barbour, University of North Carolina at Chapel Hill
Dr. Ryan Emanuel, North Carolina State University
Dr. Juan Gilbert, University of Florida
Dr. Kaye Husbands-Fealing, Georgia Institute of Technology
Dr. Charles Isbell, Georgia Institute of Technology
Dr. Gabriel Lopez, University of New Mexico
Dr. Daniela Marghitu, Auburn University
Dr. Robert Eugene Megginson, University of Michigan
Dr. Vernon Morris, Arizona State University
Dr. Lydia Villa-Komaroff, Intersections SBD
Dr. Nai-Chang Yeh, California Institute of Technology

CEOSE Members Absent

None

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

Ms. Una Alford, Program Analyst, OIA/OD/NSF

Mr. Steven Buhneing, Communications Specialist, OIA/OD/NSF

Mr. John P. White, IT Specialist, OIA/OD/NSF

Committee on Equal Opportunities in Science and Engineering (CEOSE)

Advisory Committee Meeting – October 29 - 30, 2020

Meeting Minutes

Day 1: October 29, 2020

Welcome, Opening Remarks - CEOSE Chair, Dr. Jose D. Fuentes

The Chair opened the meeting, welcomed everyone, reminded members about a few meeting logistics, and requested self-introductions of the participating members. The Chair's opening remarks covered an overview of the agenda and areas discussed during the recent CEOSE Executive Teleconference (e.g., the NSF Director's visionary pillars, the charge and value of CEOSE's work, and the upcoming 2019-2020 CEOSE Biennial Report to Congress). Additionally, CEOSE Member Suzanne Barbour highlighted the purpose and the structure for the joint session with the BIO Advisory Committee.

Report of the CEOSE Executive Liaison – OIA Office Head and CEOSE Executive Liaison, Dr. Suzanne Iacono

The CEOSE Executive Liaison reiterated that NSF's new leadership is very supportive of CEOSE, stressing the point that talent is everywhere in every community. She provided an update about NSF's response to COVID-19, emphasizing the NSF bi-weekly staff surveys, and the extended deadlines for some solicitations and Dear Colleague Letters. Her report also highlighted the diversity of the new Waterman awardees, NSF activities for Hispanic Heritage Month and Disability Awareness Month, the broadening participation sessions at the recent Environmental Research and Education Advisory Committee meeting, and the schedule for preparing the agency strategic plan for 2022-2026. Additionally, she reported that at the recent NSF retreat about workforce accessibility and inclusion, she shared several of CEOSE messages, such as broadening participation is part of both intellectual merit and broader impacts, and broadening participation is a benefit and not a problem to be solved.

Presentation: NSF INCLUDES Update – Design Team Co-Chairs Drs. Sylvia James, Deputy Assistant Director (EHR), and Don Millard, Deputy Division Director (ENG)

The presenters shared the *NSF INCLUDES Special Report to the Nation II*, provided an update about NSF INCLUDES activities with other Federal agencies, and discussed the progress of the Coordination Hub regarding the shared measurement framework. After sharing an NSF INCLUDES winning video, Dr. James invited CEOSE to visit the STEM DIVE Challenge website (<https://www.nsf.gov/ehr/stemdive.jsp>) to view the other four winning videos from over 70 submissions focused on how partnerships, networks, and alliances have contributed to an increase in STEM diversity and inclusion. Additionally, Dr. Millard highlighted the forthcoming NSF INCLUDES dashboard and provided an overall update about the performance monitoring and evaluation activities. Emphasizing a commitment to continuous improvement and building the BP knowledge base, the presentation also included portfolio exemplars such as an alliance focusing on community colleges and another award collaborating with tribal communities.

Joint Session with BIO Advisory Committee – Facilitated by CEOSE Member Dr. Suzanne Barbour, CEOSE Liaison to the BIO AC

The joint session involved raising awareness of the broadening participation (BP) efforts of the BIO Directorate, discussing the barriers to inclusivity that the BIO community is confronting, and exchanging ideas/suggested actions about overcoming such barriers and the role of NSF in advancing BP. The discussion framed BP as a solution for integrating perspectives; it is a mind-set change and not just about a set of programs. The exchange of perspectives and ideas included the following points. There must be greater engagement of the majority population as allies and advocates. To broaden participation, address, in parallel, recruitment and retention. Be mindful of the hidden labor performed by underrepresented groups, including tokenism, that is not valued. The underserved of the underrepresented must be valued, too; embrace new and different perspectives at multiple levels (students, faculty, etc.) as well as increase the sharing of success stories. Address the issues of students not feeling that they belong and focus on diversity intersectionality (e.g., African American and Hispanic students with disabilities). Cultural change in the BIO community needs to be radical to address systemic racism; it is more than counting numbers. Frame the BP challenges differently and deal with root causes. Expand leadership with people who are not like us and people we have not noticed.

Discussion: Overview of the 2019-2020 CEOSE Report – CEOSE Vice Chair, Dr. Alicia Knoedler

The Vice Chair provided an overview of the various sections of the forthcoming report and facilitated the discussion to gather the members' input about the broad recommendation and vision for the 2019-2020 report. *Making Visible the Invisible* is being envisioned as a collection of reports around at least three broad themes: promoting diversity leadership/underrepresented leadership, understanding intersectionality, and recognizing the under-underrepresented groups. Members pointed out that because the system is resistant to change, accountability must focus on changing the system and not simply tweaking the system. Another point was that the "invisible" includes unheard voices, especially sub-groups within underrepresented groups. Members were concerned about what is within NSF's purview that can spur bold transformative action for "fixing the system" that would entail a mindset change about developing the next generation of leaders, partnering with community as a STEM leader, and addressing structural elements for sustainable leadership for inclusive environments in STEM. CEOSE is asking NSF to identify opportunities to make visible elements within its programs that develop, emphasize, and promote leadership actions related to broadening the participation of underrepresented groups in STEM. Additionally, CEOSE Member Lydia Villa-Komaroff stressed the importance of encouraging NSF to leverage NSF INCLUDES to be the national vision of structural change through the actions of many individuals working together such that there is change within and between institutions and with the leaders in these institutions.

Discussion: Planning for the Next Day – CEOSE Chair, Dr. Jose D. Fuentes

The last session for the first day focused on asking questions or sharing comments with NSF leadership. Members wanted to hear about NSF Director's vision and get his reaction to the CEOSE theme of "making visible the invisible." Members planned to share how science is the answer to COVID-19 and how COVID-19 is exposing issues of inequality in STEM.

Day 2: October 30, 2020

Welcome and Overview of Day Two - CEOSE Chair, Dr. Jose Fuentes

Dr. Fuentes opened the meeting and provided an overview of Day 2. The Chair also organized the order of discussion topics to be shared with NSF Leadership.

Discussion: NCSES-Women, Minorities, and Persons with Disabilities in Science and Engineering Digest – Dr. Karen Hamrick, Senior Analyst (SBE/NCSES)

Dr. Karen Hamrick led the discussion about the forthcoming 2021 digest and the data quality concerns/issues, along with possible solutions. The next WMPD Digest will be released in April 2021, and it will include some of the suggestions from CEOSE (e.g., more information on intersectionality, exclusion of temporary visa holders in some analyses, more information about persons with disabilities). Skilled technical workforce will be new content for the upcoming report and future reports will consider regional/geographical analyses. NCSES is being more creative with visuals to address the question - Have we made progress? More discussion time was needed to be solution-oriented about more creative BP metrics and how to address small cell size in the context of making visible the invisible. An agreement was reached to have NCSES give regular briefings at CEOSE meetings and to give some consideration to jointly sponsoring a hackathon.

Panel: NSB – Vision 2030 – Drs. Ellen Ochoa, NSB Chair; Victor R. McCrary, NSB Vice Chair; and Roger N. Beachy, NSB Member/Chair of The Vision 2030 Task Force

The National Science Board (NSB) team presented an overview of the Vision 2030 report. One of the key areas discussed was STEM talent with an emphasis on how to increase STEM skills and opportunities for all Americans, especially historically underrepresented groups in STEM fields. NSB is committed to the values of diversity, equity, and inclusion as being core to the Nation's health, security, and prosperity and being core to the Vision 2030 roadmap. Some of the specific points made were: it is crucial to strengthen interagency partnerships with the private sectors; more strategic opportunities must be explored to connect researchers to large networks throughout the Nation, especially for rural areas and Tribal nations; a diverse R&D workforce is needed to push the frontiers of knowledge; a two-fold approach to STEM talent is needed, one that is expanding domestic talent while attracting global talent; and immediate action must be undertaken to accelerate progress and increase participation rates to achieve the goal of a more inclusive and equitable workforce.

CEOSE was supportive of the elements of leadership that NSB presented (i.e., building meaningful partnerships, infrastructure for linking researchers, the practice of science from lab to service to society, and talent as the greatest resource of the Nation for pushing the frontiers of science). CEOSE's reaction to the missing millions is that they are not missing but we must be held accountable for making them/their talents visible. CEOSE was also supportive of NSB's emphasis on expanding the geography of innovation, focusing on precollege years, promoting bold leadership to translate ideas into action, and being accountable with reliable, up-to-date data. CEOSE commended NSB for the recent statement on racism in science and engineering, pointing to the urgency and opportunity to diversify STEM. CEOSE

would like to continue the discussion about infrastructure and new ways to focus on broader impacts. An ongoing relationship between NSB and CEOSE would be mutually beneficial to "amplify each other's messages and reach wider audiences to increase the momentum and support for a more diverse S&E workforce. Also, ongoing engagement with NSB is projected as soon as possible with a CEOSE presentation to the Board at the December 2020 NSB meeting.

Reports of the CEOSE Executive Liaisons

Several CEOSE members had attended virtual directorate advisory committee meetings and gave their reports, emphasizing relevant BP information. The range of issues being covered in these meetings included equity concerns in the virtual STEM teaching environment (EHR), emphasis on broadening participation in solicitations and metrics to assess success and a focus on geographically underrepresented groups (BIO), an emphasis on diversity in a disciplinary frontiers report (GEO), more diverse community engagement due to a letter from the Native community regarding on-the-ground research practices related to Navigating the New Arctic and the establishment of a subcommittee on diversity and inclusion (OPP), COVID-19 impacts on diversity and inclusion (OPP, OISE and ENG), and increased awareness and outreach via special BP sessions/panels at the advisory committee meetings (ERE, EHR, and ENG).

Discussion with NSF Director, Dr. Sethuraman Panchanathan, and Chief Operating Officer, Dr. Fleming Crim

The Chair welcomed NSF's Office of the Director leadership to the meeting and invited opening remarks from the Director. Dr. Panchanathan outlined the visionary pillars for the agency, highlighting that a key strategy into the future is "strengthening at speed and scale." The Director emphasized the importance of inclusivity/accessibility as a pillar, stressing BP as essential to strategic action/activities going forward (e.g., curiosity-driven/exploration research, AI in every state, National Quantum Platform accessible to all, learning everywhere). After opening comments about infusing broadening participation in nine priority areas/approaches for advancing the frontiers of research into the future, CEOSE members shared thoughts and/or asked questions about BP topics or issues that have been discussed during the October 2020 CEOSE meeting (e.g., need for partnerships to both inspire and support the K-12 system and STEM faculty in the higher education system; the value of engaging the community as framer of research, and not just the recipients of research benefits; and the synergistic approach to the merit review criteria via broadening participation). Dr. Panchanathan expressed strong support for the forthcoming CEOSE report, stating that this is a defining moment for making the invisible visible.

Presentation: NIH – Community Engagement: American Indian and Alaska Native (AI/AN) Communities – Drs. Jermelina Tupas (Deputy Division Director at NSF), David Wilson (Director of the Tribal Health Research Office-THRO- at NIH), and Juliana Blome (Assistant Director of THRO at NIH)

The presenters highlighted National Institutes of Health (NIH)'s engagement and consultation with Tribal communities regarding issues of disparities (health, education, and economics) and how Tribal Colleges and Universities (TCUs) are focusing on genomics and data science curriculums. The NIH presentation identified challenges and best practices (e.g., outreach and town hall meetings) in working with Tribal Nations and communities. For example, Executive Order 13175 has been leveraged to promote "true

partnership." The Executive Order 13175 of November 6, 2000 requires Federal agencies to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes. NIH has developed a Tribal Consultation Policy to ensure that its engagement with AI/AN communities adhere to being "trusted research partners." NIH expressed continued interest in working with NSF in empowering/enabling Tribal communities in doing research and not just being subjects of research.

Announcements, Closing Remarks, and Adjournment

Three more of NSF's advisory committees would like to have a joint session with CEOSE – the ERE Advisory Committee, the EHR Advisory Committee (in Spring 2021) and the ENG Advisory Committee. Members were reminded that there would be upcoming writing assignments and that the February 2021 meeting will have a major block of time to review the draft 2019-2020 CEOSE Report, with the goal of submitting final draft for NSF fact check review in March 2021. The Chair adjourned the meeting.