

**CEOSE Advisory Committee  
Virtual Meeting  
National Science Foundation (NSF)  
October 27 - 28, 2022  
Meeting Minutes**

**Day 1**

**Welcome and Introductions/Meeting Overview – Dr. Jose D. Fuentes, CEOSE Chair**

Dr. Jose D. Fuentes welcomed everyone to the Fall 2022 virtual CEOSE meeting. He provided a brief overview of the meeting agenda, emphasizing the ongoing collaborative relationship with the National Science Board (NSB) and the preparation of a draft version of the 2021-2022 CEOSE report to Congress by December 2022. CEOSE members introduced themselves and were reminded to review the minutes of the June 2022 CEOSE meeting.

**NSF CEOSE Executive Liaison Report – Dr. Alicia J. Knoedler, OIA/Office Head**

Dr. Alicia Knoedler presented the NSF CEOSE Executive Liaison Report, covering the following items: an appreciation of Dr. Daniela Marghitu's services as a member of CEOSE; the dissemination of the 2019-2020 report to over 138 presidents of STEM organizations as well as internal distribution to the NSF Director, Assistant Directors, Office Heads, and other senior leaders throughout NSF; the release of the [NSF Diversity, Equity, Inclusion, & Accessibility Strategic Plan](#) prepared by the Office of Equity and Civil Rights; a brief description of the NSF's GRANTED program (Growing Research Access for Nationally Transformative Equity and Diversity) that will provide opportunities to enhance capacity for research proposal development and research administration at emerging, developing, and underserved research institutions; the 2021-2022 CEOSE report timeline, anticipating that the report will be released to Congress in June 2023 or earlier; an update of the NSF INCLUDES portfolio that highlighted new funding opportunities and lessons learned; the NSF PIPP (Predictive Intelligence for Pandemic Prevention) Initiative that focuses on fundamental research capabilities needed to tackle infectious disease pandemics through prediction and prevention and training a workforce that will help the Nation respond to the pandemic challenges in the future; and the current planning of an open house at the Foundation to help members of the NSF community see all of the great Broadening Participation (BP) activities that are happening. Dr. Knoedler also applauded CEOSE members for their presentations to disciplinary colleagues and other advisory committees at universities and through various other networks for increasing BP visibility within the STEM research community. She noted that FastLane is coming to an end. Research.Gov is the platform by which all proposals, awards, and project reports will be managed.

CEOSE members discussed the existence of two pandemics—the COVID-19 pandemic and the “pandemic of injustice.” They also requested a future session on the agency priority goal of increasing submitted proposals from underrepresented communities by 10%.

### **Presentation: Report on the Future of EPSCoR – Dr. Jose D. Fuentes, Co-Chair of the CEOSE Subcommittee on the Future of EPSCoR**

Dr. Fuentes provided a brief update about the work of the Subcommittee since the June CEOSE meeting. The report and summary handout can be found here: <https://www.nsf.gov/od/oia/activities/ceose/index.jsp>. He described the video series, and three videos were shared. These publicly released videos are posted at <https://beta.nsf.gov/funding/initiatives/epscor/future-nsf-epscor>

Additionally, he pointed out that the Subcommittee addressed all of CEOSE’s suggestions and highlighted a recent meeting with Congressional staffers who were very impressed with the report, *Envisioning the Future of EPSCoR*.

### **NSB Briefing – NSB Leadership**

The Chair of CEOSE welcomed the leadership colleagues from NSB, extending special greetings to the new Chair of NSB, Dr. Dan Reed, and the new Chair of the Committee on Oversight, Mr. Stephen Willard, as well as thanking Dr. Victor McCrary, the Vice Chair of NSB for joining this session.

Dr. Reed expressed deep appreciation for continuing the NSB-CEOSE conversation to address critical issues surrounding diversity, equity, inclusion, and the workforce issues in our country. Dr. McCrary underscored the importance of workforce in the context of the Nation losing its lead in global competition. Adding to the national security perspective, Dr. McCrary and Mr. Willard emphasized the important role of HBCUs and other MSIs in the production of the diverse, domestic STEM workforce. Directing attention to the *Vision 2030* report, the NSB team stressed that the Nation must focus heavily on developing American STEM talent (Missing Millions). NSB has made great strides in redefining the STEM workforce to include those having less than a bachelor’s degree – which it refers to as the skilled, technical workforce. Workforce development challenges that must be addressed include making improvements to the K-12 education system; reducing financial barriers to postsecondary STEM education, especially for students of color; and creating sustainable and inclusive learning environments. The discussion also focused on the immediate actions being taken to address issues around sexual harassment and work environments at the Antarctic stations (e.g., increased training, physical security, 24/7 support line, a planned NSB/NSF trip to the Ice). In emphasizing that culture determines appropriate behavior, Dr. Reed stated that NSB is committed to changing behavior and culture at the South Pole and at all the research facilities. Additionally, Mr. Willard shared how the work of the Committee on Oversight is framed around eight pillars, including data, merit review, EPSCoR and DEIA (Diversity, Equity, Inclusion, & Accessibility).

Other important takeaways during the open discussion were:

- Opportunity is not equitably distributed; we must change this for ethical and practical reasons.

- Workforce is top of mind; the critical task is in galvanizing action and multiple perspectives on what to do.
- STEM teachers (K-12) face challenges in teaching with lack of resources.
- When talking about diversity, it's more about numbers; when talking about equity, it's about culture. The focus needs to shift from diversity to equity by using the significant levers that NSF has to promote institutional change.
- Recruitment is about numbers and retention is about culture.
- Inclusive culture is what we must build and sustain because that's what lets people thrive and flourish.
- It is about time for more HBCUs to lead large scale investments, and much more attention is needed to help them become R1 research institutions.
- Is it time to break out Broadening Participation from Broader Impacts and make it its own merit review criterion?

**Discussion: Focus and Recommendation(s) of the 2021-2022 CEOSE Report – Dr. Kaye Husbands Fealing, CEOSE Vice Chair**

CEOSE Vice Chair Kaye Husband Fealing applauded the writing teams for the work they completed prior to the Fall CEOSE meeting. She facilitated a discussion around the report outline and pointed out that Day 2 included time to work on the draft 2021-2022 CEOSE report. Again, the Committee is aiming to have a draft or final draft report by December 2022.

Some of the suggestions made by the membership were: 1) point out/give credit regarding what NSF has done in the BP space and indicate what else NSF should be doing; 2) discuss what is needed if we are going to look at intersectionality in a meaningful, accountable way; 3) note the nuances of intersectionality; and 4) use intentional language (e.g., using persons that are underrepresented or underserved in STEM or minoritizing STEM as opposed to underrepresented groups, and using “persons” instead of “populations”-- persons from populations underrepresented). People aren't invisible; we are trying to make more visible the barriers that are preventing people from participating.

The discussion about the CEOSE recommendation for 2021-2022 focused on the need to employ metrics to evaluate its impact. For example, how do you leverage intersectionality and think of it not as a deficit issue but as a way to achieve our workforce goals? How do we maximize scientific investment by raising awareness of the impact of intersectionality in terms of recruitment and retention. How do we address the small *n* problem by investing in innovative, small, and big data collection strategies & programmatic interventions and help with intersectionality?

During this session, members discussed ways to make sure that the recommendation about intersectionality is succinct and goes beyond an awareness-raising effort. The discussion also covered additional lenses of diversity that can be captured as a lens of intersectionality. For example, geographic diversity, brings to light that you not only have a diverse self-identity but you're also living in a “diverse” place. This idea contributed to the potential to add the intersectionality lens to the second recommendation that focuses on geographic diversity as in the Future of EPSCoR recommendations.

The Leads of the writing teams provided updates and discussed additional materials that would be included, such as informational sidebars, call-out boxes, program highlights, data displays, updating of tables, insights/highlights from the October 2022 meeting, etc. It will be important to connect the 2021-2022 report to the next report that will focus on addressing the severely underrepresented. The report must continue to emphasize the message that broadening participation is not a challenge or a problem; it is an opportunity. However, CEOSE members pointed out that the intersecting modes of underrepresentation are not regularly or widely reported in the high-level reports that NSF prepares for public dissemination; thus, focusing on the intersectionality of data collection and analysis offer an opportunity for NSF to elevate its reporting in ways that would help identify important trends or other factors related to an inclusive STEM enterprise.

### **Discussion: CEOSE Liaison Reports – CEOSE AC Liaisons**

Dr. Fuentes thanked the membership for their important work as liaisons to NSF's other advisory committees (AC). A few members indicated the upcoming dates of AC meetings they plan to attend. Reports were shared by several CEOSE Liaisons, providing an overview of the meeting and highlights of the BP-relevant topics that were covered (e.g., BIO's interest in working closely with EPSCoR; CISE's two-fold emphasis of how to use computing to promote sustainability and how to improve the environmental footprint of computing efforts; ENG's emphasis on technology for the future and the workforce for the future; MPS's interest in the new GRANTED program and the huge burden on minoritized populations in the context of climate change, environmental resilience, and sustainability; OPP's focus on sexual harassment in the work environment and a forthcoming report on diversity; and ISE's efforts to strengthen US global leadership in STEM and broaden the support to participation of institutions beyond R1s). Additionally, the CEOSE Liaison to BIO made a presentation on the work of CEOSE's Subcommittee on the Future of EPSCoR. The CEOSE Liaison to OPP reported that the advisory committee for Polar Programs would like to have a meeting with CEOSE in 2023.

### **Day 2**

#### **Opening and Discussion of Topics/Ideas to Share with Leadership– Dr. Jose D. Fuentes, CEOSE Chair**

The Chair welcomed everyone to a full day of CEOSE activities. He invited members to make any overall comments about yesterday and then proceeded with discussing the advice to share with NSF Leadership. Ideas included the need to parallel two constructs: that discussion of missing millions must include a discussion of missing data. Moreover, the missing millions does not just represent missing participation, it is missing knowledge, understanding, and perspectives. The recommendation(s) in the upcoming CEOSE report will not advocate for a new program; it will be a call to infuse intersectionality into those existing programs. We need to be more inclusive in the kinds of information we collect and use; for example, we need to look at the qualitative data to understand the barriers and limitations to diversifying the STEM ecosystem from the perspectives of people with intersectional backgrounds.

Other suggested topics to discuss with NSF leadership included: institutional transformation, accountability measures for changing culture, metrics to document the progress of GRANTED, strategies for increasing the numbers of URM faculty in STEM, the agency priority goal to increase proposal submissions and how to achieve the goal and messaging it for the STEM community, the seriousness of NSF's response to CEOSE recommendations, and non-R1 MSIs becoming R1 institutions,

### **Working Session: 2021-2022 CEOSE Report**

Writing teams were assigned to break-out rooms; the four groups continued drafting the 2021-2022 biennial report to Congress. The Co-Leads of each of the writing teams determined how to best organize their time together. The working session ended with the Co-Leads giving a status of writing progress and sharing next steps. One important outcome was combining sections one and four to become Part I of the 2021-2022 CEOSE report.

### **Discussion with NSF Leadership – Dr. Sethuraman Panchanathan, NSF Director and Dr. Karen Marrongelle, NSF Chief Operating Officer**

The Chair welcomed NSF Leadership to the meeting and invited the NSF Director to give opening remarks, followed by a discussion with CEOSE. After hearing a very brief overview of CEOSE's activities, Dr. Panchanathan applauded the video work of the Subcommittee and the report, *Envisioning the Future of EPSCoR* and provided an update of his visits to higher education institutions in New Hampshire, Mississippi, North Carolina, and South Carolina. He highlighted the following: the ATE program; the HSI-net investment; efforts to leverage the NSF budget with other entities like industry; the hiring of a new Chief Diversity and Inclusion Officer to work on making sure that NSF's diversity and inclusion goals, metrics, and advancements are aggressively acted upon and tracked; and zero tolerance for bullying, assault, and harassment in the US Antarctic program.

During the discussion, Dr. Panchanathan pointed out that 16 of the NSF executive leadership team are women; and more than 40% are people of color. Underscoring the importance of leading by example, he stated that you cannot institute change unless you have leadership at NSF that represents what we aspire to have across our Nation. He agreed with Morgan State University President David Wilson that it is "unacceptable there is not an R1 HBCU." NSF can and has to have a leadership role in this area of need. The Director pointed out that the GRANTED program was precisely designed to ensure the success of institutions that have been left behind, and he shared that Dr. Marrongelle met with HBCU R2 institutions and has had similar STEM education and research conversations with HSIs and TCUs. The session closed with a focus on data. The consensus was that without better data, the metrics have no value.

### **Discussion: Federal Liaison Reports – CEOSE Federal Liaisons**

CEOSE received a written report from the Smithsonian Institute (SI), prepared by Mr. Shahin Nemazee (This report provided updates about the following: DCPS (District of Columbia Public Schools) Teacher Professional Development Day: How to Be a Scientist Teacher Training, 2022 National Education

Summit, COVID-CON: Connections and Conversations with Science Educators and Students, Unlearning Racism in Geoscience (URGE), National 4-H Council Institute, and Mornings at the Museum). Dr. Lisa Evans from NIH shared documents about the UNITE initiative. According to the 2021-2022 UNITE Progress Report (<https://www.nih.gov/sites/default/files/research-training/initiatives/ending-structural-racism/UNITE-progress-report-2022.pdf>), “UNITE primarily focuses on three intersecting areas—health disparities and minority health research, the internal NIH workforce, and the external research workforce. UNITE helps enable greater transparency, accountability, and communication across NIH and the biomedical and behavioral research community. Five UNITE committees with more than 80 NIH staff volunteers concentrate on catalyzing change and enacting real solutions to foster equity for all” (page 3). Dr Evans also called attention to the upcoming Supreme Court hearing of two cases that deal with affirmative action in colleges. She suggested that broadening participation discussion do not need to wait for a decision to start looking at some of the approaches that are race neutral in making grant awards.

### **Announcements and Final Remarks**

Dr. Fuentes acknowledged the invaluable contributions of Drs. Susan Renoe and Daniela Marghitu as members of the Subcommittee on the Future of EPSCoR. On behalf of CEOSE, he also applauded Dr. Marghitu for her outstanding contributions to CEOSE; this was her last CEOSE meeting. Again, he thanked the writing groups for their excellent work. He reiterated the desire for the 2021-2022 CEOSE report to be finished at the next meeting or sooner, underscoring that 2023 is the start of a new reporting period. After announcing that the next meeting will be a virtual meeting in February 2023 with plans for an in-person meeting in June 2023, the Chair adjourned the meeting.