

**CEOSE Advisory Committee Virtual Meeting  
National Science Foundation (NSF)  
October 28, 2021  
Meeting Minutes**

**Welcome and Opening Remarks**

Dr. Jose D. Fuentes, CEOSE Chair, welcomed the members to the Fall CEOSE meeting, with special greetings to Dr. Alicia Knoedler as Head of the Office of Integrative Activities. Following self-introductions of the membership, appreciation was extended to Dr. Kaye Husbands Fealing for accepting the leadership role of CEOSE Vice Chair. Dr. Fuentes commented on the productive monthly meetings with the NSF CEOSE Executive Liaison and the recent Executive Meeting with Dr. Karen Marrongelle, emphasizing NSF's positive response to the 2019-2020 CEOSE Biennial Report to Congress.

**NSF Executive Liaison Report**

The presentation by Dr. Alicia Knoedler, Head, OIA and CEOSE Executive Liaison, highlighted the following: senior staff changes; operating postures of NSF during the pandemic regarding telework and virtual panel meetings; the mission of the new Office of Equity and Civil Rights (OECR); selected BP webinars and other outreach efforts, including social media efforts; HBCU-Excellence in Research (EiR) update; and new programs like MSP-Ascend (Mathematical and Physical Sciences Ascending Postdoctoral Research Fellowships and BRC-BIO (Building Research Capacity of New Faculty in Biology). She called attention to NSF's Taking Action: COVID-19 Diversity, Equity, and Inclusion Challenge (<http://www.nsf.gov/takingaction>) and OSTP's The Time is Now: Advancing Equity in Science and Technology Ideation Challenge. Dr. Knoedler applauded CEOSE members for being advocates, influencers, and encouragers. She also stressed the important role of being CEOSE Liaisons and producing impactful CEOSE reports for NSF and the STEM community.

**Preparation for Meeting with the Director**

Members reflected on the need to continue to offer meaningful advice to address the *Making Visible the Invisible* theme. Potential topics suggested for discussion with NSF leadership included: more support for less-resourced institutions, especially minority-serving institutions (MSIs) and community colleges; the need to promote ADVANCE-like programs for MSIs and community colleges; efforts to broaden the perspectives of reviewers to reduce biased reviews of unfunded proposals; increased engagement of MSIs in the MRI program and other research programs throughout the Foundation; ways that the work of CEOSE can contribute to the development of the new TIP (Technology, Innovation, and Partnerships) effort; leadership's self-assessment of NSF as a leader in broadening participation in STEM; and what efforts are underway to hold grantees accountable for doing good science and being inclusive.

**Discussion with NSF Leadership**

Dr. Sethuraman Panchanathan, NSF Director, expressed warm greetings for 2022 and thanked all

the members for their commitment to and hard work in advancing diversity and inclusion in the scientific enterprise. He proudly commented that broadening participation is being infused in all aspects of the NSF work environment and award portfolios. He called attention to the female leadership in OD, EHR, ENG, and GEO. He stressed that the Foundation has placed increased emphasis on supporting individuals underrepresented in STEM and underserved communities, pointing out the need to energize talent everywhere and to leverage the EPSCoR portfolio. Dr. Panchanathan applauded CEOSE for its synergistic activities with the National Science Board (NSB) and the National Center for Statistics and Engineering (NCSES). He encouraged CEOSE to learn about the new Office of Equity and Civil Rights, continue to focus on disaggregated data, and plan for a leadership roundtable focused on NSF's response to CEOSE's *bold leadership actions* recommendation. Additionally, the Director was receptive of comments by CEOSE members about implementing a procedure to deal with inappropriate reviews, sharing the learnings of pilot efforts such as the CISE MSI expansion program, and holding PIs accountable for a culture of inclusiveness, underscoring that excellence in STEM must be defined by merit and diversity—these terms are not contradictory.

**Panel: Leadership Roles of MSIs in STEM Education and Workforce Development**

*MPS/EHR Leadership, Co-Chairs with Lead Program Directors*

*NSB Vice Chair, Discussant*

**Dr. Sean Jones**, Assistant Director, MPS

**Dr. Debasis Majumdar**, Program Director, MPS/DMR

**Dr. Karen McCloud**, Program Director, MPS/DMR

**Dr. Sylvia Butterfield**, Acting Assistant Director, EHR

**Dr. Diana Elder**, Division Director, EHR/HRD

**Dr. Jermelina Tupas**, Deputy Division Director, EHR/HRD

**Dr. Jody Chase**, Program Director, EHR/HRD

**Dr. (Erika) Tatiana Camacho**, Program Director, EHR/HRD

**Dr. Carleitta Paige-Anderson**, Program Director, EHR/HRD

**Dr. Victor McCrary**, NSB Vice Chair

The MPS leadership team highlighted several partnership models for broadening participation and placed a strong emphasis on the next generation of diverse STEM graduates and future PIs. Working closely with the MPS communities, exemplary evidence was provided to showcase the programmatic influence of PREM and MPS AGEP Graduate Research Fellows, along with the expectations for PREP, PREC and Ascend programs.<sup>1</sup> Specific projects were highlighted, including the Fisk's APS Bridge Program and NSF INCLUDES IGEN Alliance. The Directorate is supporting research, education outreach, BP workforce development in a diverse range of MPS disciplines spanning the full STEM pathway as well as engaging in NSF-wide efforts like NSF INCLUDES and the EiR programs. CEOSE commended MPS for its support of and active engagement with MSIs.

Senior and program leaders in EHR provided a historical context of the directorate's financial support for broadening participation, indicating how BP investments span all EHR's divisions

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<sup>1</sup> PREM (Partnerships for research and Education in Materials), AGEP (Alliances for Graduate Education and the Professoriate), PREP (Partnerships for Research and Education in Physics), PREC (Partnerships for Research and Education in Chemistry), IGEN (Inclusive Graduate Education Network)

and how NSF INCLUDES leveraged both the intellectual and financial contributions of all NSF directorates. The Division of HRD is celebrating 30 years of broadening participation activities and is described as a hub for programs that focus on BP. Overviews with data were provided for the following programs CREST, TCUP, HSI, and HBCU-UP. For example, of the 14 HBCUs currently offering doctoral degrees in science and engineering and eligible for CREST/RISE funding, 11 are supported by NSF. The HSI program is currently supporting more than 90 different institutions in 13 states and Puerto Rico, and 15+ of these awardees are new institutions to the NSF funding portfolio. Key messaging included: CREST centers are encouraged to connect to other NSF Centers; TCUP projects can focus on partnerships, cyberinfrastructure, and/or teachers of STEM at the K-12 levels. TCUP Centers build capacity in service to the community, increasing local economies and entrepreneurship. The HSI program supports institutional transformation, engaged student learning, and early research opportunities. HBCU-UP supports faculty research, institutional capacity building, and HBCUs as intellectual hub/national resource.

Discussant Dr. Victor McCrary pointed out how these efforts with MSIs can partner with the TIP, work with other agencies like National Institutes of Health (NIH), and are connected to the *NSB Vision 2030*. Drawing on the work of industry, Dr. McCrary noted the importance of tracking outcomes, particularly how research is advancing at MSIs. Other key points focused on encouraging the early engagement for students to pursue leadership positions, being inclusive of the skilled technical workforce; messaging DEI as a national imperative by framing it as a security issue; and examining the data to look for gaps and who we are missing.

CEOSE members commented how some qualifying MSIs do not have diverse STEM departments at the faculty level. Several members supported the idea of making more visits to MSIs, and membership agreed that more efforts are needed to address the dearth of underrepresented minorities in leadership positions.

### **Discussion with NCSES**

Dr. Amy Burke, Supervisory Program Director in the National Center for Science and Engineering Statistics, provide an update about the new NCSES website (<https://nces.nsf.gov>) and the WMPD<sup>2</sup> Day. NCSES is re-imagining the women, minorities, and persons with disabilities report to be user friendly and modernized for increasing its reach and impact. There is strong support for thematic reports, too. As part of this re-imagining efforts, several CEOSE members volunteered to be interviewed. Additionally, CEOSE indicated that the next WMPD report needs to: give increased attention of intersectionality, disaggregate the data along career paths, identify and address the gaps in disability data reporting, and share/show solutions for addressing the “small n” data problems. On December 7, 2021, a workshop will be held to discuss findings about how to re-imagine the WMPD report.

### **Panel: STEM Identity and Intersectionality – Part I**

Intersectionality and STEM Panel

- **Dr. Ebony McGee**, Professor of Education, Diversity and STEM Education, Vanderbilt University, Department of Teaching and Learning

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<sup>2</sup> WMPD: Women, Minorities, and Persons with Disabilities

- **Dr. Erin Cech**, Associate Professor of Sociology, University of Michigan, Department of Sociology and Mechanical Engineering
- **Dr. Okhee Lee**, Professor of Childhood Education, New York University, Department of Teaching and Learning

Update on Intersectionality in NSF DEI programs

- **Dr. Mark Leddy**, Program Officer, AGEP and INCLUDES
- **Dr. Jessie DeAro**, Program Officer, ADVANCE and ECR
- **Dr. Regina Sievert**, Program Officer, TCUP and BCSER

The researchers funded by EHR discussed issues of identity and intersectionality in STEM from a range of perspectives, including the intergenerational learning of and sustaining of privilege contributing to STEM inequality research paradigm; historical assumptions about intelligence and competency, and wellness in STEM within an intersectionality context. The panel reiterated the need to go beyond the analyses of disadvantage in addressing STEM equality to include research on other dimensions of marginalization and devaluation in STEM. CEOSE members were given several questions to consider that were addressed by the presenters, such as:

Do heterosexual white men without disability experience unique advantages in terms of social inclusion, less harassment, and greater intentions to stay in STEM compared to member of all other intersectional groups?

Do white men without disabilities enjoy advantages that cannot be attributed to supply-side differences in human capital, STEM field and sector, work commitment and engagement, job characteristics and family responsibilities?

How do mental/physical health and STEM intersect?

Additionally, the presenters and program directors in HRD pointed out that race and gender are not the only identifiers that impacts an individual's experiences in pursuing and advancing in STEM careers. NSF program directors shared how several programs in HRD include intersectionality as additional review criteria, namely, HSI, AGEP and ADVANCE.

### **Discussion: Reports of the CEOSE Liaisons**

CEOSE Liaisons to NSF Advisory Committees shared the broadening participation/diversity concerns that were discussed at several recent AC meetings: GEO AC, PPAC, ENG. Issues being raised included what are the different questions that need to be asked regarding the diversity of the geosciences and how do we engage different people and think about different perspectives. The AC for Polar Programs has formed a task force to develop a DEI report. The ENG AC stressed the need to accelerate partnerships with underserved communities.

### **Dissemination of the 2019-2020 Report and Preparation for the 2021-2022 Report**

The Chair reported on his dissemination activities that included presentations at his institution and several other IHEs about the recent CEOSE report. Two other members have plans for talks at their institutions about the work of CEOSE and 2021-2022 report. The report slide deck will be shared with the CEOSE membership. The report will be distributed at the upcoming EPSCoR PI/PD meeting. Hopefully, the NSF ADs will be invited to have a roundtable discussion about the report at the Spring 2022 CEOSE meeting. The report is posted on both the CEOSE website and the NSF BP website.

**Announcements and Final Remarks**

Dr. Jose D. Fuentes, CEOSE Chair, briefly talked about the Future of EPSCoR subcommittee. In addition to Dr. Fuentes serving as Co-Chair, two other CEOSE members—Drs. Marghitu, and Renoe—are members of the subcommittee. The Chair also recognized the numerous contributions of outgoing CEOSE members—Drs. Charles Isbell and Lydia Villa-Komaroff. Following the announcement that the next CEOSE meeting will be a two-day meeting in February 2022, Dr. Fuentes adjourned the meeting.