

Advising on Practices to Overcome Barriers to Broadening Participation in STEM



National
Science
Foundation

Dr. Bernice Anderson
Office of Integrative Activities
National Science Foundation

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Committee on Equal Opportunities in Science and Engineering (CEOSE)

Committee Overview and Selected Biennial Reports



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Where Discoveries Begin

Advising on Practices to Overcome Barriers to Broadening Participation in STEM

CEOSE Mission and Background

- Established by Congress in December 1980
- Purpose and Value to NSF:
 - Provides advice to NSF concerning:
 - Implementation of the provisions of the Science and Engineering Equal Opportunities Act
 - Other policies and activities to encourage full participation of women, minorities and persons with disabilities
 - Submits a biennial report to the Director concerning broadening participation; the report is transmitted to Congress



CEOSE Operational Aspects

Membership

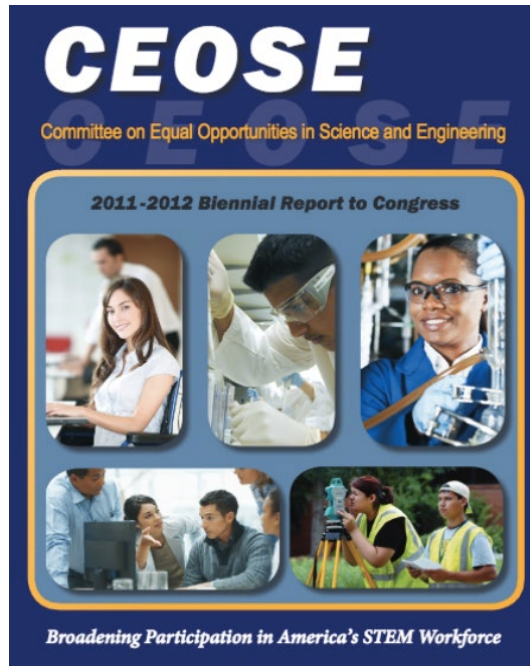
- CEOSE is comprised of approximately 15 members appointed by the NSF Director
 - Members are appointed for a term of 3 years.
 - Members can be reappointed to serve an additional term of up to 3 years

Structure and Activities

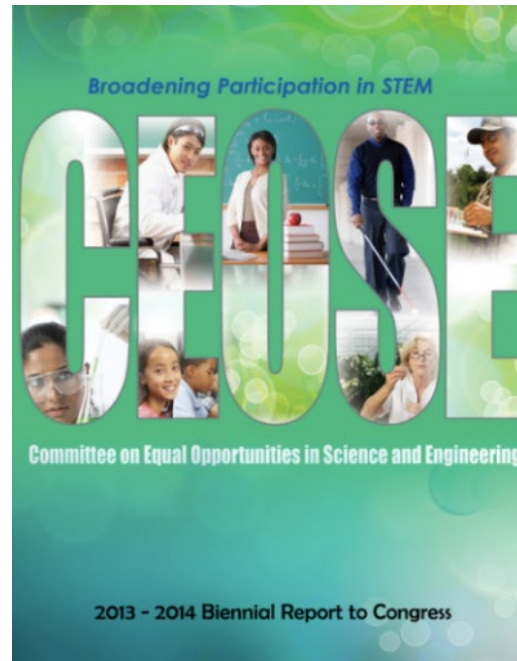
- Chair, Vice Chair, Executive Liaison, Executive Secretary, CEOSE Liaisons, Federal Liaisons to CEOSE
- 3 meetings per year of the full committee, monthly leadership teleconferences, and Executive CEOSE Teleconference prior to the scheduled open CEOSE meeting
- Ad Hoc Subcommittees
- Biennial Report to Congress



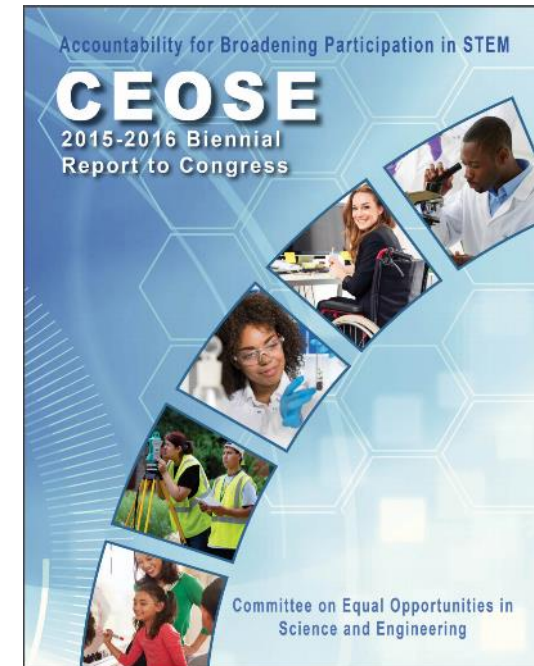
CEOSE Biennial Reports: A Series



2011-2012: focused on a single recommendation for a bold new initiative to broaden participation



2013-2014: proposed five specific components of a plan for implementation



2015-2016: recommended an accountability framework for assessment

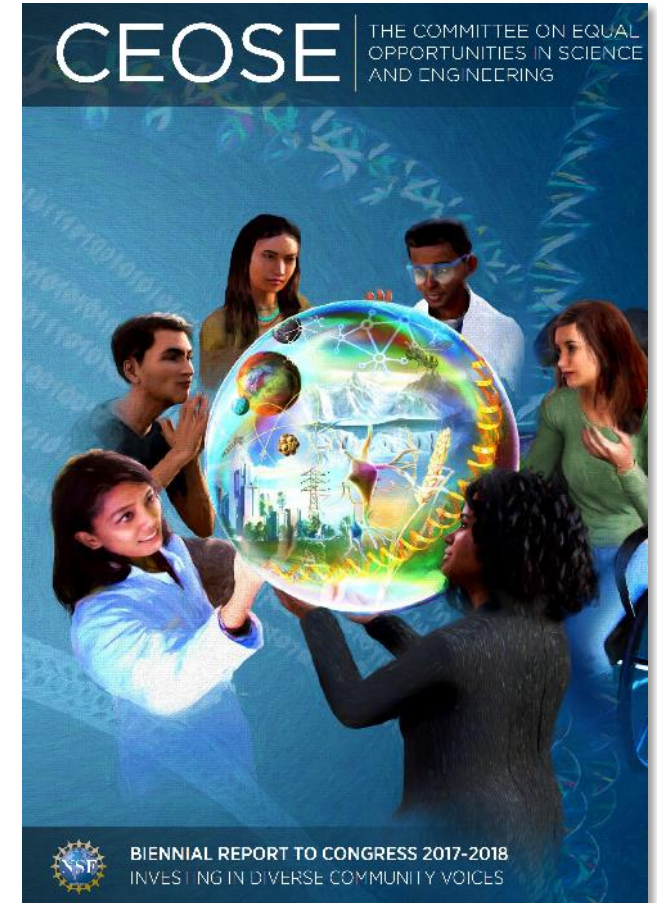


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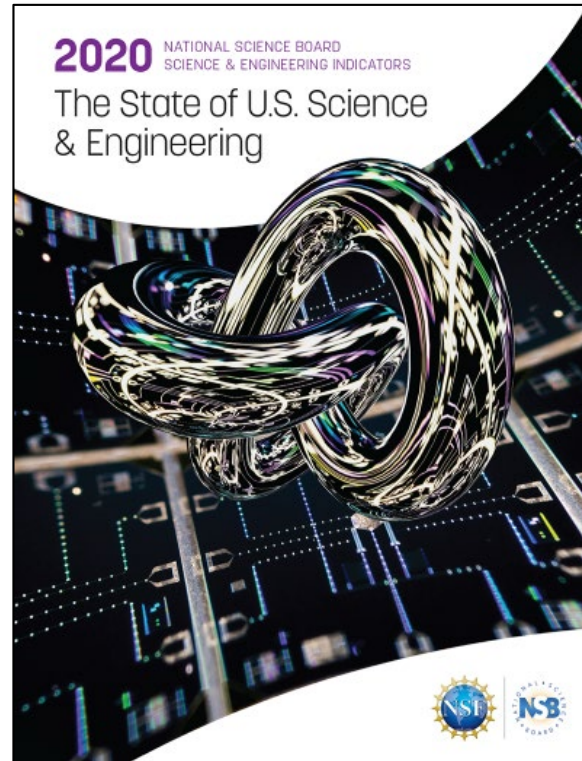
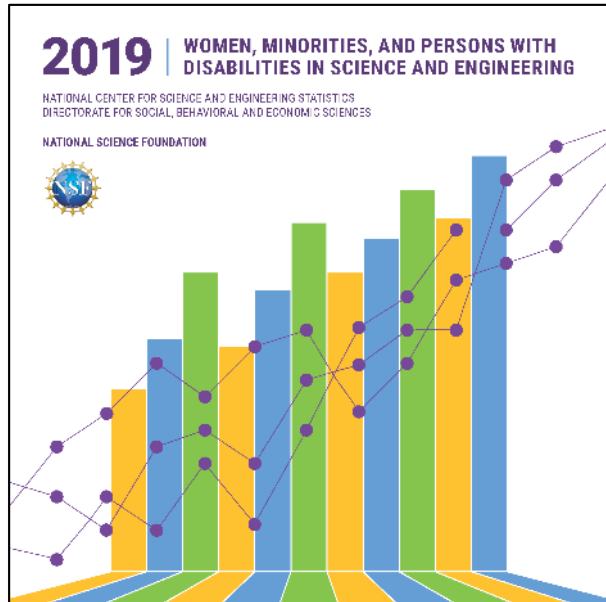
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CEOSE Biennial Reports: Distribution and Content

- Biennial report submitted to the NSF Director who transmits the report to Congress
 - State of participation of underrepresented groups
 - Review of NSF's policies and funding opportunities to broaden participation
 - Summary of CEOSE activities during the two-year reporting period and future plans for the next two years
 - Recommendations to the Foundation for improving participation levels of underrepresented groups



State of Participation of Underrepresented Groups in STEM



- An inclusive STEM workforce is needed to maintain US leadership in the scientific enterprise.
- Research has shown that diversity contributes to better learning and problem solving, fuels innovation, and fosters more creative solutions.
- New opportunities must be provided to help the Nation increase its use of diverse communities to help solve highly complex, real-world problems.



NSF Efforts to Increase Accessibility, Diversity, Equity, and Inclusion in STEM

Policies and Priorities

- ⑩ Messages to the Public
- ⑩ BP in the Context of Broader Impacts
- ⑩ Sexual Harassment Policies
- ⑩ Codes of Conduct

NSF S&E Diversity

- ⑩ Scientists and Engineers at NSF
- ⑩ BP data for PIs and Reviewers)

Financial Investment in BP

- ⑩ Funding for Focused and Emphasis BP Programs and Geographic Diversity
- ⑩ Annual Funding to MSIs

Program Highlights

- ⑩ NSF INCLUDES
- ⑩ GEO Opportunities for Leadership in Diversity
- ⑩ Hispanic-Serving Institutions Program
- ⑩ HBCU Excellence in Research Program
- ⑩ Louis Stokes Regional Centers of Excellence
- ⑩ ADVANCE

Other Accomplishments

- ⑩ Career-Life Balance DCL
- ⑩ Broadening Participation Research Track
- ⑩ BP-Related Subcommittees of Other Advisory Committees
- ⑩ BP Website



The Work of CEOSE



- Submission and distribution of the Biennial Report and Flyer
- Three meetings each year:
 - Recent topics covered:
 - 1) increasing accountability for broadening participation,
 - 2) addressing sexual harassment,
 - 3) promoting community engagement in science,
 - 4) understanding intersectionality,
 - 5) measuring broadening participation, and
 - 6) promoting visibility and leadership in diversity, equity, and inclusion initiatives and programs
 - Discussions with:
 - 1) NSF leadership and Program Directors,
 - 2) Liaisons from other Agencies, and
 - 3) Outside experts with expertise in diversity and inclusion



CEOSE Recommendation to NSF in 2018

***“Give increased attention to
including diverse community voices
across its research and education portfolios
through community-driven projects.”***

Suggested Action to be Responsive

CEOSE encourages NSF to continue to provide leadership in increasing the participation of underrepresented groups in the STEM enterprise by partnering with other federal agencies, education institutions, STEM professional associations/societies and others, including communities and stakeholders who can collaborate in the co-production of knowledge.



Key Takeaways from CEOSE Members



1. Moving the needle – optimism is growing with emphasis on meaningful change.
2. Broadening Participation (Diversity, Equity, Inclusion, and Belonging) is a solution, not a problem to be solved.
3. Everyone is accountable – Underrepresented individuals/communities are not solely responsible for championing diversity/equity/inclusion.
4. Accepting BP/DEI requires a mindset change for many people.
5. Seeking to emphasize power in the accumulation of knowledge - stop reinventing the wheel with our BP/DEI approaches, programs, and lessons learned.
6. Address inclusivity in STEM by ***Making Visible the Invisible.***



***Thank You
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