

**COMMITTEE ON EQUAL OPPORTUNITIES IN  
SCIENCE AND ENGINEERING  
MEETING MINUTES**

March 8-9, 2010

**Meeting Site**

**National Science Foundation (NSF), Stafford II - Room 555; Wilson Boulevard; Arlington, Virginia 22230**

**Meeting Participants**

**Members Present:**

**Ms. Sandra Begay-Campbell**, Sandia National Laboratories, Albuquerque, NM  
**Dr. Cecilia Conrad**, Pomona College, Claremont, CA  
**Dr. Evelyn Hammonds**, Harvard University, Cambridge, MA (*Virtual Participant*)  
**Dr. Wesley L. Harris**, Massachusetts Institute of Technology, Cambridge, MA  
**Dr. Richard E. Ladner**, University of Washington, Seattle, WA  
**Dr. Marigold Linton**, University of Kansas, Lawrence, KS  
**Dr. Theresa A. Maldonado, CEOSE Chair**, Texas A & M University, College Station, TX  
**Dr. George Middendorf**, Howard University, Washington, DC  
**Dr. Maria Ong**, TERC, Cambridge, MA  
**Dr. Eugenia Paulus**, North Hennepin Community College, Brooklyn Park, MN  
**Dr. Muriel Poston, CEOSE Vice Chair** Skidmore College, Saratoga Springs, NY  
**Dr. Alex Ramirez**, HACU National Headquarters, San Antonio, TX  
**Dr. Wendy Raymond**, Williams College, Williamstown, MA

**Members Absent:**

**Dr. Joseph S. Francisco**, Purdue University, West Lafayette, IN  
**Ms. Lueny Morell**, Hewlett-Packard Company, Aguadilla, PR

**CEOSE Executive Liaison/CEOSE Executive Secretary:**

**Dr. Margaret E. M. Tolbert**, Senior Advisor, Office of Integrative Activities, NSF

**OIA/NSF Primary Support Staff Members**

**Mr. Steven Buhneing**, Program Analyst, Office of Integrative Activities/NSF  
**Ms. Geraldine (Geri) Farvés**, IT Specialist, Office of Integrative Activities/NSF  
**Ms. Candice Fordyce**, Program Assistant, Office of Integrative Activities/NSF  
**Ms. Denita Y. Norris**, Program and Technology Specialist, Office of Integrative Activities/NSF

**Non-Members Who Attended/Participated in Discussions/Made Presentations at the Meeting:**

<b>Dr. Denise Barnes</b> , EPSCoR/OIA/NSF <b>Dr. Arden L. Bement, Jr.</b> , NSF Director <b>Dr. Katie E. Blanding</b> , U.S. Army (Federal Liaison to CEOSE ( <i>Virtual Participant</i> )) <b>Dr. Henry Blount</b> , EPSCoR/OIA/NSF <b>Ms. Prudence (Prudy) Brown</b> , SRI International <b>Dr. Lura Jody Chase</b> , HRD/EHR/NSF <b>Dr. Walter V. Collier</b> , Beyond The Bottom Line, Inc. <b>Dr. Kelline Craig-Henderson</b> , SRS/SBE/NSF <b>Ms. Carmen Cromartie</b> , Captioner, Precise Reporting <b>Ms. Corinda Davis</b> , Beyond The Bottom Line, Inc. <b>Mr. Steve Dupuis</b> , QEM Fellow <b>Dr. Omina El-Hakim</b> , ENG/NSF <b>Dr. Jaqui Falkenheim</b> , SRS/SBE/NSF <b>Dr. Joan Ferrini-Mundy</b> , EHR/NSF	<b>Dr. Timothy L. Killeen</b> , GEO/NSF <b>Dr. Fae Kosmo</b> , OD/NSF <b>Dr. Mark Leddy</b> , RDE/HRM/EHR/NSF <b>Dr. Cora B. Marrett</b> , OD/NSF <b>Dr. J.V. Martinez</b> , Office of Science/DOE (Federal Liaison to CEOSE) <b>Dr. Shirley McBay</b> , QEM <b>Ms. Monica Mitchell</b> , MER Associates <b>Dr. José Muñoz</b> , OCI/NSF <b>Dr. Pamela O'Neil</b> , OIA/NSF <b>Dr. Thomas W. Peterson</b> , ENG/NSF <b>Ms. Carolyn Piper</b> , OEOP/NSF <b>Ms. Claudia Postell</b> , OEOP/NSF <b>Ms. Kathryn R. Rison</b> , OD/NSF <b>Mr. Lawrence Rudolph</b> , OGC/NSF
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<b>Dr. Mary Frase, SRS/SBE/NSF</b> <b>Dr. Joan Frye, OIA/NSF</b> <b>Dr. Arlene Garrison, EPSCoR/OIA/NSF</b> <b>Ms. Simona Gilbert, OIA/NSF</b> <b>Ms. Tracy Gorman, OD/NSF</b> <b>Dr. W. Lance Haworth, OIA/NSF</b> <b>Dr. Craig Henderson, OIA/NSF</b> <b>Dr. Demetrios Kazakos, HRD/EHR/NSF</b>	<b>Dr. Victor Santiago, HRD/EHR/NSF</b> <b>Dr. Michael C. Sieverts, BD/BFA/NSF</b> <b>Ms. Marilyn Suiter, HRD/EHR/NSF</b> <b>Ms. Kathryn Sullivan, OIA/NSF</b> <b>Dr. Judith Sunley, SBE/NSF</b> <b>Ms. Sheila Tyndell, EPSCoR/OIA/NSF</b> <b>Dr. Uma Venkateswaran, EPSCoR/OIA/NSF</b> <b>Dr. Wanda E. Ward, OD/NSF</b> <b>Dr. Robert Webber, OISE/NSF</b>
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## Meeting Notes

### Monday, March 8, 2010

#### Opening Statement and Discussion:

**Dr. Theresa A. Maldonado**, CEOSE Chair, opened the meeting at 8:35 a.m. in Stafford II, room 555. After introducing the five new members (**Dr. Cecilia A. Conrad** of Pomona College, **Dr. George Middendorf** of Howard University, **Ms. Lueny Morell** of Hewlett-Packard Company, **Dr. Eugenia Paulus** of North Hennepin Community College, and **Dr. Wendy Raymond** of Williams College), she introduced the other members and select NSF staff.

CEOSE members concurred with the January 25, 2010 approval by Dr. Maldonado of the minutes of the October 26-27, 2009 meeting, without any changes.

**Dr. Maldonado** gave an overview of CEOSE and advised that this March meeting is an orientation for the entire membership. She announced that **Dr. Muriel Poston** will begin serving as CEOSE Chair on the first day of the June CEOSE meeting. **Dr. Muriel Poston** commented on the America Competes Act.

**Dr. Maldonado** reported on the telecon requested by **Drs. Bement** and **Marrett**. Both **Dr. Maldonado** and **Dr. Poston** participated in this telecon, along with **Drs. W. Lance Haworth, Margaret E. M. Tolbert, Joan Ferrini-Mundy, Fae Korsmo,** and **Cesar Jackson** of NSF. The focus was on the proposed EHR/HRD Comprehensive Broadening Participation of Undergraduates in STEM Program that will include the Historically Black Colleges and Universities, Tribal Colleges and Universities, Hispanic Serving Institutions for which there is no current program in the NSF portfolio, and the Louis Stokes Alliance for Minority Participation programs.

At the March meeting, CEOSE members discussed pros and cons of the proposed comprehensive program and concluded that this is a program that will have institutions with strong infrastructure compete with those that do not. The former will be the most successful in the competitions. Key questions that surfaced are: What problems are being solved by the consolidation of these programs? What is broken and needs to be fixed? What is the legal requirement to which NSF is responding that calls for this program? Do the evaluation results of these programs suggest a need for them to be combined? How will NSF define its minority serving institutions? During the telecon, there was also a brief discussion on EPSCoR, ADVANCE, AGEP, and CREST. However, there was no discussion of these programs being consolidated.

#### DISCUSSION with Mr. Lawrence Rudolph, OGC Director:

**Mr. Rudolph** spoke of his experience in dealing with both litigation and policy issues surrounding the NSF science and engineering equal opportunities activities and programs. He said that the Office of the General Counsel and the Foundation fully embrace CEOSE goals, NSF's strategic plan and, most importantly, the goals Congress set forth in the Science and Engineering Equal Opportunities Act. He then spoke about the genesis of affirmative action, the drafting of the Science and Engineering Equal Opportunities Act (SEEOA) two years after the Supreme Court's decision in Bakke, and how the SEEOA is as relevant and important today as it was then. **Mr. Rudolph** stated, "It directs NSF to increase the number of women, underrepresented minorities and persons with disabilities in our research and education programs. NSF's challenge is to help realize this mandate in a constitutionally permissible

manner.” Quoting from a Nicholas Lemann article in *The Atlantic Monthly*: "If we fail to ensure diversity in our programs and in our institutions, it will ... [be] a denial of talent to our society." **Mr. Rudolph** spoke of several examples that demonstrated how diversity can be obtained in a legal and fair manner that will survive legal as well as political scrutiny. He further noted that NSF does not set goals or specific quotas in order to increase the participation of underrepresented minorities; however, there are legal ways for the Foundation and CEOSE to address its mandate without spending a lot of time in the courts defending its actions.

Among the other topics that CEOSE members discussed with **Mr. Rudolph** were the following:

- ✓ NSF survey of earned doctorates,
- ✓ Seeking support for CEOSE to do research that requires collecting data,
- ✓ Citizenship requirements in grant and fellowship applications,
- ✓ Role (or the lack of a role) of NSF in university versus principal investigator and/or co-investigator disputes,
- ✓ Diversity on university campuses in relationship to how racial/ethnicity data can be collected in faculty job applications,
- ✓ Justification that NSF will use to eliminate congressionally mandated programs and the legal ramifications for the changes required for the formation of the comprehensive program to be implemented in HRD,
- ✓ The congressionally mandated Hispanic Serving Institutions Program (America Competes Act, Section 71.3),
- ✓ Definition for federally recognized tribes and distinctions given to different racial/ethnic groups,
- ✓ Operational definition of diversity as NSF considers it, and
- ✓ Diversity of the NSF reviewer pool.

#### **DISCUSSION with Dr. Arden L. Bement, Jr., Director, National Science Foundation and Dr. Cora B. Marrett, Acting Deputy Director, National Science Foundation**

**Dr. Bement** greeted everyone and gave a warm welcome to the new members of CEOSE. He emphasized the importance of CEOSE to him and to NSF in general. He focused his remarks on the proposed EHR/HRD Comprehensive Broadening Participation of Undergraduates in STEM Program (CBP-US). He sees opportunities for sharing knowledge among institutions, especially those with well-developed STEM programs and those that educate significant numbers of undergraduates and graduate students. He also sees opportunities for capacity building. Discussions with the community will take place transparently. The current plan is to launch the program in 2011 and phase it in over a long period. Although the program targets undergraduate education, it also pays a great deal of attention to challenges and barriers at the transition points—from high school to college, from two-year colleges to four-year colleges, and from undergraduate to graduate education. The idea is to leverage and expand opportunities with other agencies and the private sector.

**Dr. Bement** sees the program as developing model alliances/intramural networks, program assessments, transformational initiatives, and where appropriate, collaborations with EPSCoR programs. Research and accountability underlie the entire comprehensive program.

In agreement with **Dr. Bement**, **Dr. Marrett** added that NSF intends to build on what we have learned and take it to the next stage by expanding opportunities and resources. She noted that CEOSE is the first audience with whom **Dr. Bement** has had the opportunity to share information on the proposed CBP-US. NSF is attempting to position the program for strategic growth.

During the discussion period, the questions and comments covered the following: evaluation of the programs, leveraging with the private sector and foundations, differences among and roles of the institutions to be involved in the CBP-US, increasing the number of students in STEM, partnerships, inclusion of institutions serving persons with disabilities, different program tracks (e.g., strategic model outlines, transformative initiatives, targeted initiatives, and research), teacher professional development, recruitment, retention, graduation success, expectations of the comprehensive program, cultural differences in the institutions, program management and distribution of funds, the addition of an

international component to the comprehensive program, and the vast difference between LSAMP and the other HRD programs to be involved.

**Dr. Bement** told CEOSE members that the NSF draft strategic plan is still under internal review; it will be open for public comments soon. In response to a question, he advised that broadening participation will be a priority in the plan.

At the end of the session, **Dr. Bement** presented a Certificate of Service to **Dr. Harris** for his years of contributions to CEOSE and NSF. CEOSE acknowledged **Dr. Bement** for his years of service to NSF and for his interactions with and support of CEOSE. On June 1, 2010, he will begin serving as Director of the Global Policy Research Institute at Purdue University.

#### **DISCUSSION with Dr. Michael C. Sieverts, Acting Director, Budget Division, NSF/BFA**

**Dr. Sieverts** discussed with CEOSE members the NSF budget process and the involvement of the Budget Division in it, the mission of the Budget Division in relationship to NSF goals and performance, financial highlights, and the FY 2011 budget request to Congress. He included in his remarks information on oversight and House Appropriation hearings. As the meeting continued, CEOSE members and Federal Liaisons posed question and made comments on the following: NSF performance in light of limited staff, budget process length, participation by NSF directorates and major offices in the budget process, NSF program turnover, cost effectiveness, efforts to maintain sustainable income for NSF, the process used for jointly funded programs with other Federal agencies, performance assessment (e.g., the work of GPA Advisory Committee), and the attention paid to broadening participation in the budget process.

#### **DISCUSSION with Dr. Judith Sunley, Deputy Assistant Director, Directorate for Social, Behavioral, and Economic Sciences, NSF**

**Dr. Sunley**, who was accompanied by **Drs. Mary Frase** and **Kelline Craig-Henderson**, presented an overview of the Directorate for Social, Behavioral and Economic Sciences (SBE). **Dr. Sunley** spoke of the size of SBE in terms of its coverage of pertinent programs and activities. In presenting information on programs funded by SBE, **Dr. Sunley** described its divisions—Division of Science Resources Statistics, Division of Behavioral and Cognitive Sciences, and Division of Social and Economic Sciences. The Office of Multidisciplinary Activities (SMA) programs cut across SBE and connect to other parts of NSF. The following programs are under the auspices of this office: Research Experiences for Undergraduates Sites, Minority Postdoctoral Research Fellowships, Science of Science and Innovation Policy, Science of Learning Centers, seed funding for interdisciplinary activities. Also, **Dr. Sunley** described the coordination responsibilities of the Office of the Assistant Director for SBE and the Science of Science and Innovation Policy unit. Funding opportunities of SBE include, but are not limited to, the Rapid Response Research, Faculty Early Career Development, and the Early-concept Grants for Exploratory Research programs. She reminded CEOSE members of the connections of SBE to CEOSE (e.g., exploration of the science of broadening participation, science policy, minority postdoctoral fellows, support for undergraduate and graduate training programs, the report on *Women, Minorities and Persons with Disabilities*, the report titled *Science and Engineering Indicators 2010*, information on panelists, training video on implicit bias, data for use by researchers and the community, SBE's assistance being provided in the preparation of Chapter 1 of the *2009-2010 CEOSE Biennial Report to Congress*, and discussions on science and engineer workforce data). Developing activities of SBE include the following: 1) Science, Engineering and Education for Sustainability and 2) Cyberlearning Transforming Education. Both solicited and unsolicited proposals are welcome. After commenting on the American Recovery and Reinvestment Act of 2009, **Dr. Sunley** advised that "SBE welcomes research in emerging fields that cross traditional disciplinary boundaries." This was an interactive session, and CEOSE members posed questions and provided comments that engaged **Drs. Sunley, Frase, and Craig-Henderson** for the entire hour. **ACTION**

**ITEM:** A representative of SBE will provide to CEOSE a list of NSF awards that are consistent with the science of broadening participation.

**PRESENTATION AND DISCUSSION with Dr. Wesley L. Harris, CEOSE Member and Chair of the CEOSE Ad Hoc Subcommittee on Accountability, Evaluation, & Communications**

- **Meeting with Subcommittee on Research and Science Education:**

**Dr. Harris** called to the attention of CEOSE members the January 13th meeting in which he and **Dr. Maldonado** participated with **Drs. Marcy E. Gallo** and **Dahlia L. Sokolov**, Congressional staffers for the Subcommittee on Research and Science Education. **Drs. Gallo** and **Sokolov** invited **Drs. Harris** and **Maldonado** to the meeting to discuss CEOSE recommendations on broadening participation. They wanted to see how the information related to what was being discussed in reference to the American Competes Act. **Drs. Gallo** and **Sokolov** clearly saw a need for a common set of metrics and definitions and terms regarding broadening participation across Federal agencies. They expressed a desire to see more outreach to bring leverage by integrating activities across the Federal agencies, and they strongly support legislation on broadening participation. **Dr. Harris** suggested that **Drs. Gallo** and **Sokolov** be invited to make presentations to CEOSE members on the topic of the America Competes Act, as well as other topics pertinent to broadening participation. **ACTION ITEM:** Official CEOSE invitations are to be extended to **Dr. Gallo** and **Dr. Sokolov**, requesting them to make presentations during a CEOSE meeting on the America Competes Act, as well as other congressional topics pertinent to broadening participation. **ACTION ITEM:** Continue CEOSE interactions with Federal agencies in addition to NSF. **ACTION ITEM:** Continue the inclusion of Federal Liaison involvement in CEOSE meetings and other activities.

- **CEOSE Inter-Agency Report (DRAFT):**

**Dr. Harris** reported that the draft CEOSE inter-agency report is available for updating and that it is the right time for CEOSE to finalize the report. After a discussion on the draft (e.g., among the topics: leveraging of the report across agencies, pros and cons of publishing the report, sensitivity of some of the data, strategy for re-engaging the Federal agencies, inclusion of the edited preface by **Dr. Harris**, NSF views on the report, making the report available on the CEOSE website, suggestions of those—members of the Congressional Black Caucus—who should receive printed copies of it, and the inclusion of a memorandum as a tribute to the late **Dr. William McCarthy**), members agreed to it being published after it is updated. It was noted that a copy of the draft inter-agency report has been submitted to **Dr. Wanda E. Ward** in the Office of the NSF Director for review and comments. This action will facilitate the advisement of the Director and Deputy Director on the report. **AGREED:** that the draft inter-agency report be updated and published and that **Dr. Harris** lead this project with assistance by **Dr. Tolbert**. **ACTION ITEM:** CEOSE members are to review the draft inter-agency report and provide comments/changes to **Dr. Tolbert** for transfer to **Dr. Harris** who will take them into consideration as the report is revised. **ACTION ITEM:** The top official of each agency that is included in the inter-agency report must provide written approval for the accuracy and inclusion of his/her agency's information. **ACTION ITEM:** Review the draft report prepared in 2008 titled *Joining Forces to Broaden Participation in Science and Engineering: Strategies for Inter-Agency Collaboration* with the following objectives: 1) obtaining CEOSE members' input on it, 2) reviewing it with **Dr. Cora B. Marrett**, Acting Deputy Director of NSF, and requesting her concurrence with its revision and publication; and 3) reviewing it with other designated Federal agency officials, including those at NSF.

- **An Analysis of CEOSE/CEOST Recommendations, 1980-2008:**

**Dr. Harris** reminded members that the Committee on Equal Opportunities in Science and Technology (CEOST) was established in 1980. Later, it was renamed the Committee on Equal Opportunities in Science and Engineering (CEOSE). The committee's mandate, as well as other information, is on its website at <http://www.nsf.gov/od/oia/activities/ceose/index.jsp>. The third report that **Dr. Harris** gave was based on an analysis of CEOSE and CEOST recommendations, 1980-2008. In that period, CEOSE/CEOST made 231 recommendations to NSF—32.9% pertinent to overall topics, 22.5%

pertinent to women, 23.3% pertinent to underrepresented minorities, and 21.2% pertinent to persons with disabilities. Six themes dominate the Overall Recommendations category; these themes are 1) requests for data, 2) NSF personnel, panels, committees of visitors, etc., 3) affirmative action, broadening participation, 4) outreach to Federal agencies, 5) K-12 education, and 6) financial aid/funding. CEOSE biennial reports contain a great deal of information on these recommendations and NSF responses to them.

### **DISCUSSION**

CEOSE members discussed a number of topics, some of which covered the impact of the NSF budget changes on broadening participation in science and engineering, anticipation of the arrival of a new NSF director, and the process for vetting reports prior to publication.

### **ADJOURNMENT**

The meeting was adjourned at 5:31 p.m.

## **Tuesday, March 9, 2010**

### **OPENING STATEMENT AND DISCUSSION:**

**Dr. Maldonado** called the meeting to order at 8:40 a.m. The discussions were focused on the following: 1) collaborating with the White House and the Office of Science and Technology Policy (OSTP). **ACTION ITEM:** Through OSTP, CEOSE is to form a subcommittee to engage the current Administration in the CEOSE mandate. This will involve interactions with the White House and OSTP officials. The rationale is that there is a great deal of activity relative to science and engineering that is being addressed by the current administration, and CEOSE members and officials of the Administration can work together for greater synergy; 2) selecting the cover for the *2009-2010 CEOSE Biennial Report to Congress*. **ACTION ITEM:** By Friday, April 12<sup>th</sup>, **Dr. Collier** is to send to **Dr. Tolbert** the new design of the cover for the report; 3) nominating individuals for possible membership in CEOSE. In response to a question, **Dr. Tolbert** described the process for the selection of CEOSE members.

### **REPORT: *The Mini-Symposium on Women of Color in STEM (science, technology, engineering, and mathematics)* by Dr. Maria Ong, CEOSE member**

**Dr. Ong** gave a report on the “Mini-Symposium on Women of Color in STEM,” which was held in October 27-28, 2009, at the Hilton Hotel in Arlington, Virginia. One hundred thirteen persons from government, academia, industry, and non-profit organizations participated in this mini-symposium. As designed, the conference had keynote speakers, panel discussions (e.g., Personal Perspectives, Qualitative Findings, Quantitative Research and Evaluation, Policy and Action) and a round-table discussion. **Dr. Ong** advised that the follow-up issues are numerous. Barriers to the advancement of women of color in STEM were identified at the mini-symposium. She reviewed the written suggestions that resulted from the mini-symposium. Barriers—both obvious and obscure—to making the needed changes must be identified and addressed.

CEOSE members spoke of the ADVANCE Program as an avenue by which to initiate the women of color program. One problem is that no one at NSF has the responsibility of ensuring that a women of color portfolio of activities and awards is supported. Among the suggestions by members were the development of a leadership institute for women of color, development of an NSF program for women of color, distribution of a letter by the NSF Director to NSF university awardees about the importance of the double bind, the ADVANCE Program as an avenue for addressing the issue of getting more women of color into STEM, the development and implementation of a workshop to address issues of increasing the number of women of color in STEM, and accountability. All of the slides used in the mini-symposium are available online at <http://www.nsf.gov/od/oia/activities/ceose/index.jsp>. **ACTION ITEM:** CEOSE members are to use suggestions from the “Mini-Symposium on Women of Color in STEM” to formulate

recommendations for submission to the NSF Director for action. These will be discussed by CEOSE members in June for final action.

**PRESENTATION AND DISCUSSION: *Overview of the National Science Foundation* by Dr. W. Lance Haworth, Director of the Office of Integrative Activities, NSF**

**Dr. Haworth** provided an overview of NSF—past and present. He then presented information on the budget, challenges, and opportunities. In discussing the broadening participation aspects of NSF, he called attention to the NSF website that contains a wealth of information on that topic. Included on that site is the NSF Diversity Plan. **Dr. Haworth** described a sampling of broadening participation programs across NSF. Included were the following: Research Initiation Grant to Broaden Participation in Biology; Broadening Participation in Computing; Research on Gender in Science and Engineering; Broadening Participation Research Initiation Grants in Engineering; Opportunities for Enhancing Diversity in the Geosciences; Partnerships for Research and Education in Materials; Partnerships in Astronomy & Astrophysics Research and Education; Minority Postdoctoral Research Fellowships and Follow-up Research Starter Grants; Cyberinfrastructure Training, Education, Advancement, and Mentoring for Our 21<sup>st</sup> Center Workforce; and ADVANCE programs.

Among the topics discussed during the question and answer period were the following: the inclusion of broadening participation elements in NSF program overall, the Academic Research Infrastructure Program, National Science Board membership (**ACTION ITEM: Dr. Tolbert** is to give **Dr. Linton** a list of all National Science Board memberships in the last 30 years), and the availability of data on awards to women of color.

**PRESENTATION AND DISCUSSION: *Plans for the 2009-2010 CEOSE Biennial Report to Congress* by Dr. Muriel Poston, CEOSE Vice Chair**

**Dr. Poston** presented information on CEOSE and the plans for *the 2009-2010 CEOSE Biennial Report to Congress*, which is due in 2011. By law, the report is to cover CEOSE activities of the previous two years and proposed activities for the subsequent two years. This requires data collection, trend analyses, determination of influences of pathways in broadening participation in STEM, research and evaluation on effects of broadening participation programs, policies, and practices, and communication about CEOSE activities and recommendations. The chapters of the report were described. Also, the consulting firm that will assist with the preparation of the report is Beyond The Bottom Line, Inc., an 8a company, for which the lead persons are Ms. Corinda Davis—President, and Dr. Walter V. Collier—Senior Research Analyst.

**WORKING LUNCH: REPORTS by CEOSE Liaisons to NSF Advisory Committees**

Several assignments of CEOSE members to serve as Liaisons to NSF advisory committees were made as follows:

<b>NSF Advisory Committee</b>	<b>CEOSE Member</b>
AC GPA	Dr. Wendy Raymond
B&O	Dr. Cecilia Conrad
ENG	Dr. Eugenia Paulus
OISE	Dr. George Middendorf
SBE	Dr. Maria Ong

**ACTION ITEM: Dr. Tolbert** is to send the appropriate information on each CEOSE Liaison to the corresponding directorate/major office contact person.

Among those who gave reports on NSF advisory committees for which they serve as CEOSE Liaisons were the following:

<b>ACCI</b>	<b><u>Dr. Ramirez</u>, CEOSE Member</b>
<b>ACGPA</b>	<b><u>Dr. Ong</u>, CEOSE Member</b>
<b>B&amp;O AC</b>	<b><u>Dr. Wesley L. Harris</u>, CEOSE Member</b>
<b>CISE AC</b>	<b><u>Dr. Ladner</u>, CEOSE Member</b>

Although there are more CEOSE Liaisons than appear in the above list, some did not make reports due to the fact that the advisory committees to which they were assigned had not met by the date of the CEOSE meeting.

**CLOSING DISCUSSION:**

Members of CEOSE congratulated **Dr. Harris** on his service to the committee. In responding, **Dr. Harris** called attention to past members, such as **Drs. McCarthy, Lichter, Myers, Pearson**, et al, who were inspirational. His hope is that this will be a lasting tradition of inspirational members. He takes with him a sense of confidence that in our community scholarship, second to none, can be generated. A question that CEOSE should always ask: Can we maintain excellence in science and engineering and include the contributions of those in our mandate? **Dr. Harris** thanked everyone for their generosity with their time. It was fun, he said.

**ADJOURNMENT**

The meeting was adjourned at 2 p.m.

**CERTIFICATION OF THE ACCURACY OF THE CEOSE MEETING  
MINUTES**

On June 8, 2010, **Dr. Theresa A. Maldonado**, Chair of the Committee on Equal Opportunities in Science and Engineering, approved the minutes of the March 8-9, 2010 meeting via an e-mail message to **Dr. Margaret E.M. Tolbert**, CEOSE Executive Liaison.