

**National Science Foundation**  
**Directorate for Social, Behavioral, and Economic Sciences (SBE) Advisory Committee (AC)**  
**May 18-19, 2017; NSF Headquarters, Stafford I, Room 1235**  
**Meeting Summary**

**SBE Advisory Committee (AC) Members Present:** Dr. Kenneth Bollen, AC Chair, Department of Psychology and Neuroscience and Department of Sociology, University of North Carolina, Chapel Hill; Dr. Joseph Altonji, Economics Department, Yale University; Dr. Ann Bostrom, Daniel J. Evans School of Public Policy & Governance, University of Washington (and Advisory Committee for Environmental Research and Education Liaison); Dr. Karen Cook, Department of Sociology, Stanford University; Dr. Nilanjana Dasgupta, Department of Psychological and Brain Sciences, University of Massachusetts at Amherst; Dr. Catherine Eckel, Department of Economics, Texas A&M University; Dr. Ruth DeFries, Department of Ecology, Evolution and Environmental Biology, Columbia University; Dr. Arthur Lupia, Department of Political Science, Institute for Social Research, University of Michigan; Dr. Thomas McDade, Department of Anthropology, Northwestern University (via videoconference); Dr. Jennifer Richeson, Department of Psychology, Yale University; Dr. William Riley, Office of Behavioral and Social Sciences Research, National Institutes of Health (*Ex officio*); and Dr. Lydia Villa-Komaroff, Massachusetts Life Center (Committee on Equal Opportunities in Science and Engineering, CEOSE, liaison).

**SBE Advisory Committee Members Absent:** Dr. John Gabrieli, McGovern Institute for Brain Research, Massachusetts Institute of Technology; and Dr. Linda Smith, Department of Psychological and Brain Sciences, Indiana University.

**NSF Staff in Attendance:** Dr. France Córdova, Director; Dr. Joan Ferrini-Mundy, Acting Chief Operating Officer; Dr. Fay Lomax Cook, Assistant Director (AD), SBE; Dr. Kellina Craig-Henderson, Deputy AD, SBE; Mr. John Gawalt, Division Director, SBE/National Center for Science and Engineering Statistics (SBE/NCSES); Ms. Emilda Rivers, Deputy Division Director, SBE/NCSES; Dr. Alan Tomkins, Deputy Division Director, SBE/Division of Social and Economic Sciences (SBE/SES); Dr. Steven Breckler, Acting Deputy Division Director, SBE/Division of Behavioral and Cognitive Sciences (SBE/BCS); Dr. Deborah Olster, Senior Advisor, SBE/Office of the Assistant Director (SBE/OAD); Mr. John Garneski, Budget Officer, SBE/OAD; Ms. Madeline Beal, Communications Specialist, SBE/OAD; Mr. Anthony Teolis, SBE Administrative Coordinator, SBE/OAD; Ms. Clarissa Johnson, IT Specialist, SBE/OAD; Mr. Philip Johnson, IT Specialist, SBE/OAD; Dr. Chaitanya Baru, Senior Advisor for Data Science, Directorate for Computer & Information Science & Engineering; Dr. Cheryl Eavey, Program Director, SBE/SES/Methodology, Measurement and Statistics; Ms. Aya Collins, Leader, Public Affairs & Media Relations Group, NSF Office of Legislative & Public Affairs (OLPA); and other NSF staff.

**Note:** The meeting was open to the public and representatives of stakeholder groups also attended. External guest speakers included Dr. Robert Groves, Provost, Executive Vice President, and Gerald J. Campbell S.J. Professor, Mathematics and Statistics and Sociology, Georgetown University; Dr. Barbara Entwisle, Kenan Distinguished Professor of Sociology, University of North Carolina, Chapel Hill and Chair, National Academies Standing Committee on the Future of NSF-Supported Social Science Surveys; Dr. Jeremy Berg, Editor-in-Chief, *Science* and the *Science* Family of Journals, and Associate Senior Vice Chancellor for Science Strategy and Planning in the Health Sciences and Professor of Computational and Systems Biology at the School of Medicine, University of Pittsburgh; Ms. Wendy Naus (via videoconference), Executive Director, Consortium of Social Science Associations (COSSA); and Dr. Paula Skedsvold, Executive Director, Federation of Associations in Behavioral & Brain Sciences (FABBS).

**Summary:** This was the first meeting of the SBE AC in 2017. The agenda included the following items: updates on the activities of the SBE Directorate and its divisions; presentations and discussions of future data challenges for social and economic statistics and the future of NSF-supported social science surveys; a conversation with the Editor-in-Chief of *Science* and the *Science* family of journals; updates on the activities of CEOSE and the Advisory Committee for Environmental Research and Education (AC-ERE); a conversation with NSF leadership; presentation and discussion of the NSF Big Idea for Future Investment, *Harnessing Data for 21<sup>st</sup> Century Science and Engineering*; legislative and communications updates from NSF/OLPA and from COSSA and FABBS; and planning for future SBE AC meetings. Additional information about the meeting is posted at [https://www.nsf.gov/events/event\\_summ.jsp?cntn\\_id=189377](https://www.nsf.gov/events/event_summ.jsp?cntn_id=189377).

**Welcome, Introductions, Review of AC Meeting Summary from Fall, 2016, and Preview of Agenda** (Dr. Kenneth Bollen, SBE AC Chair)

Following introductions, Dr. Kenneth Bollen welcomed one new AC member, Dr. Ann Bostrom from the Daniel J. Evans School of Public Policy & Governance, University of Washington. The AC approved the fall, 2016 AC meeting summary, and Dr. Bollen previewed the agenda for the current meeting.

**SBE Directorate Update** (Dr. Fay Lomax Cook, AD, SBE)

Dr. Cook welcomed the AC and provided a brief update on staff transitions within the Directorate leadership and OAD. She then discussed the recently enacted Fiscal Year (FY) 2017 omnibus appropriations bill, which sets NSF's FY 2017 budget at \$7.47 billion, an increase of \$9.0 million over FY 2016. Although FY 2017 directorate level budgets have not been finalized, no major changes are expected for SBE. Dr. Cook then described the American Innovation and Competitiveness Act (AICA). Among its provisions, the AICA: 1) affirms NSF's Intellectual Merit and Broader Impacts review criteria, and includes goals of national interest under the Broader Impacts criterion; 2) directs the Foundation to fund a National Academies (NAS) study on scientific replicability; and 3) addresses oversight of major projects, administrative burden, and STEM education. The Act does not stipulate the NSF or directorate budgets. She then described two NAS projects of particular interest to SBE: [Graduate Training in the Social and Behavioral Sciences: A Public Workshop](#) (scheduled for June, 2017), and [The Value of Social, Behavioral and Economic Sciences to National Priorities](#). The latter calls for the appointment of an expert committee to determine whether SBE research furthers the missions of NSF and other federal agencies, and advances business and industry. The committee was also asked to provide examples of such research and to identify priorities for NSF investment in the SBE sciences from past NAS reports, if any, and to articulate important considerations for NSF for strategic planning. The committee's draft Letter Report is expected to be released in June, 2017.

Dr. Cook's presentation continued with the announcement of a new [Dear Colleague Letter, Growing Convergence Research at NSF](#), which invites proposals for workshops and Research Coordination Networks for four of the Foundation's Big Ideas: *Harnessing the Data Revolution for 21<sup>st</sup> Century Science and Engineering*; *Navigating the New Arctic*; *The Quantum Leap: Leading the Next Quantum Revolution*; and *Work at the Human-Technology Frontier: Shaping the Future*. She concluded her presentation by highlighting SBE's communications efforts, high-profile awards to SBE-funded researchers, and the agency's impending move to its new headquarters in Alexandria, VA.

**Future Data Challenges for Social and Economic Statistics** (Dr. Robert Groves, Provost, Executive Vice President, and Gerald J. Campbell S.J. Professor, Mathematics and Statistics and Sociology, Georgetown University)

Dr. Groves's presentation covered two primary topics: 1) the NAS study, [Improving Federal Statistics for Policy and Social Science Research Using Multiple Data Sources and State-of-the-Art Estimation Methods](#); and 2) the [Commission on Evidence-Based Policymaking](#). Dr. Groves opened the NAS portion of his presentation by describing the study's panel members and their charge to conduct a study with the goal of fostering a paradigm shift in federal statistical programs — from the current paradigm of providing users with the output from a single census, survey, or administrative records source. The new paradigm would include combinations of diverse data sources from government and private sector sources. These data would be combined with state-of-the-art methods to give users richer and more reliable statistics leading to new insights about policy and socioeconomic behavior.

Dr. Groves described the panel's conclusions and recommendations in its first report, *Innovations in Federal Statistics: Combining Data Sources While Respecting Privacy*. These addressed threats to the federal statistical system and surveys, alternative data sources, such as administrative data and data generated by the private sector, impediments to the use of alternative data, and privacy/confidentiality concerns. He described the benefits of combining multiple datasets, the importance and challenge of protecting privacy and confidentiality, and the panel's recommendation for a new entity to facilitate secure access to data for statistical purposes to enhance the quality of federal statistics. The panel's second report is expected in the summer of 2017.

The second part of Dr. Groves's presentation focused on the Commission on Evidence-Based Policymaking, also known as the "Murray-Ryan Commission." He provided details on the Commission's history, establishing statute, time-line, and goal, which is to conduct a comprehensive study of the federal government's data inventory, data infrastructure, database security, and statistical protocols. The Commission's primary duty is to determine how federal administrative data may be integrated and made available for the purposes of program evaluation, relevant research, and cost-benefit analyses, while ensuring privacy. The Commission will make recommendations on the government's statistical/data infrastructure, security, and statistical protocols, and will also evaluate whether a federal data clearinghouse should be established. The Commission's report is due in September, 2017.

A general discussion then ensued among the AC members regarding data privacy/security issues; the challenge of improving survey response rates while containing costs; and access to private sector data and government administrative data, including government agencies' willingness to provide the data, research needs, and interoperability between these data and existing federal surveys and systems.

**The Future of NSF-Supported Social Science Surveys** (Dr. Barbara Entwisle, Kenan Distinguished Professor of Sociology, University of North Carolina, Chapel Hill and Chair, NAS [Standing Committee on the Future of NSF-Supported Social Science Surveys](#))

Dr. Entwisle began by describing each of the "Big 3" social science surveys, the American National Election Studies (ANES), the Panel Study of Income Dynamics (PSID), and the General Social Survey (GSS). The NAS Standing Committee was charged with informing NSF efforts to develop options for the future of the three surveys that improve their relevance and cost-effectiveness. Dr. Entwisle emphasized that the Committee did not make recommendations or author reports, but rather, offers discussion and observations. The Committee met four times, focusing its discussions on the history of the surveys, opportunities afforded by new technologies and new data, cooperation among the surveys, and the

consolidation of Committee members' thoughts/observations to be conveyed to NSF. SBE leadership and program officers were involved throughout the process.

The Committee noted that surveys operated in isolation from each other and identified an opportunity to develop a coordinated effort. A strategy to consolidate and reorganize the surveys could reduce duplication and maximize both efficiency and cost savings. The Committee also discussed barriers and opportunities in the innovation of survey methodology and explored combining the ANES and GSS samples. Cost savings might be realized by having one contractor administer all surveys or by maintaining the current data collection timeline but using the surveys to complement each other. The Committee identified data dissemination as another aspect of the surveys that could be improved, and also discussed centralized housing and oversight of the three surveys within a single program in SBE, rather than the current arrangement of each survey being housed in a different disciplinary program. Dr. Entwisle offered her concluding opinion that a strategy to reorganize according to function rather than survey program will move social science forward as it reduces duplication of effort and increases efficiencies.

**Division of Social and Economic Sciences (SES) Response** (Dr. Alan Tomkins, Deputy Division Director, SES)

Dr. Alan Tomkins thanked the Committee and described how, moving forward, SBE will pursue content- and management-related suggestions made by the NAS Committee, including examination of methodological innovations, incorporation of external data, improvements in data dissemination, coordination of the "Big 3" surveys, and possible expansion of coordination to capture other SBE infrastructure activities. SES has already created an Executive Committee comprised of program directors from Economics, Sociology, and Political Science (the programs that currently house the surveys), and Methodology, Measurement, and Statistics, to coordinate and oversee these projects. The Division will continue to use the grant mechanism for funding the surveys, to maximize the independence of the managing institution. An inaugural "Big 3" Principal Investigator (PI) meeting is scheduled for June, 2017 and annually thereafter, to coordinate across the surveys and to share ideas.

During the ensuing discussion, one AC member expressed support for developing a committee to oversee the surveys and for keeping the surveys in their respective disciplinary programs to maintain their connections to the fields and scholars who are using the survey data to ask research questions. Other AC members suggested soliciting input from researchers and from other agencies, and conducting a workshop to coordinate across numerous longitudinal studies. Another member noted overlaps and synergies between these SBE-funded surveys and those funded by other federal agencies, and suggested creating a clearinghouse to coordinate all surveys. In addition, AC members pointed out the need to rethink our vision of surveys as something that involves subjects answering all questions in a single sitting. Members also noted the importance of survey data dissemination and communication of the surveys' value.

**A Conversation with Dr. Jeremy Berg, Editor-in-Chief, *Science* and the *Science* Family of Journals, and Associate Senior Vice Chancellor for Science Strategy and Planning in the Health Sciences and Professor of Computational and Systems Biology at the School of Medicine, University of Pittsburgh**

Dr. Berg introduced the *Science* family of journals and presented the results of an analysis of the scientific content of the various journals that was based on natural language processing. He highlighted *Science Advances*, an open-access, highly selective, peer-reviewed journal, as the best home for SBE research. *Science Advances* has 11 editorial teams globally, with several editors boasting social science expertise and a recently added a neuroscience team. He also presented a gender analysis of *Science*

authors that explored whether the review and editorial processes of the journal introduce significant gender disparities. The data suggest that this is not the case, but the percentages of women among authors submitting to and published in *Science* is relatively low. These analyses and others are posted on Dr. Berg's blog, [Sciencehound](#).

The AC discussion following Dr. Berg's presentation touched on several topics. Regarding gender balance among *Science* reviewers and editors, Dr. Berg noted that there was no difference in the proportion of women submitting vs. reviewing manuscripts, but a shortage in both, as compared to men. However, there are too few editors to make meaningful gender comparisons. Regarding data and code sharing, the journals continue to improve implementation of the Transparency and Openness Promotion Guidelines to which *Science* is a signatory. Responding to a question about common errors investigators make when submitting manuscripts for publication, Dr. Berg cited reports of large datasets that lack sufficient analysis, and manuscripts that are too specialized for *Science*, a journal that strives to publish papers that speak to a broad audience. The discussion also touched on the interface between *Science* and the American Association for the Advancement of Science (AAAS). While *Science* does not speak for AAAS, the journal does publish research on topics that are relevant to AAAS's advocacy activities, e.g., global warming.

### **SBE Division Updates**

#### **National Center for Science and Engineering Statistics** (Mr. John Gawalt, Division Director, NCSES)

Mr. Gawalt started his update with announcement of staff changes and new NCSES publications. He highlighted the Early Career Doctorate Survey and the [Women, Minorities, and Persons with Disabilities in Science and Engineering: 2017](#) report. He described how NCSES is working closely with the National Science Board to develop the 2018 *Science and Engineering Indicators*. In addition, NCSES is working on governance and cost issues for the Federal Statistical Research Centers and continuing to improve its internal operations and data dissemination activities, including its licensing program. He also discussed other NCSES activities to increase efficiencies, including collaborations with the U.S. Census Bureau, the NAS Committee on National Statistics, and Virginia Tech University.

Topics raised during the ensuing discussion included the question of whether private foundation funding is driving scientific priorities, a question NCSES surveys do not address, and the changes to the Survey of Doctorate Recipients (SDR). Researchers are concerned that some of SDR's longitudinal capabilities will be diminished due to survey expansion and the inclusion of additional doctoral subfields. Mr. Gawalt noted that the SDR was not intended to be longitudinal, but that NCSES is consulting with researchers and exploring how to build in a longitudinal component for the future. He also mentioned that the SDR sample size will be tripled, allowing researchers to delve into questions about subfields.

#### **Division of Social and Economic Sciences** (Dr. Alan Tomkins, Deputy Division Director, SES).

Dr. Tomkins began his brief presentation by describing the possible integration of two of the Foundation's Big Ideas – *Harnessing the Data Revolution for 21<sup>st</sup> Century Science and Engineering* and *Work at the Human-Technology Frontier: Shaping the Future* – into SES core programs in Science, Technology, and Society and Methodology, Measurement, and Statistics, respectively. He also discussed the broader impacts of SES-funded basic research, such as the use of game theory in the design of the Federal Communications Commission's spectrum auctions, the reliability of eyewitness testimony, and the benefits of good childcare. He concluded his presentation by highlighting workshops completed since the previous AC meeting and SES-funded researchers who have recently received Guggenheim Fellowships, the John Bates Clark Medal, and the Pulitzer Prize.

**Division of Behavioral and Cognitive Sciences** (Dr. Steve Breckler, acting Deputy Division Director, BCS) Dr. Breckler highlighted changes to two BCS core programs. The Science of Learning program (SL) evolved from the Science of Learning Centers program. The Developmental and Learning Sciences program has become Developmental Sciences (DS), as the learning-focused work migrated to SL. DS will focus on lifespan development research. This reorganization resulted in a small drop in the number of proposals received as compared to previous cycles. Dr. Breckler also described BCS's role in the NSF Big Idea, *Understanding the Rules of Life: Predicting Phenotype*, through the Division's emphasis on the behavioral and social context of biology. He highlighted additional biological research supported by BCS, e.g., sleep research and genetics/epigenetics studies, demonstrating that biological processes both underlie and are affected by psychological states, social interactions, and environmental factors. During the discussion following his presentation, Dr. Breckler explained how the collaborative teams of researchers conducting these biological research studies arose organically through BCS core programs.

**Update on the Advisory Committee for Environmental Research and Education (AC-ERE) Activities** (Dr. Ann Bostrom, AC-ERE Liaison)

Dr. Bostrom provided an update on recent activities of the [AC-ERE](#). These AC-ERE report, [America's Future: Environmental Research and Education for a Thriving Century](#), provides example research questions and suggests specific actions for NSF focused on understanding challenges to improve our ability to forecast environmental change, understanding the design of resilient socio-environmental systems that reduce vulnerability to changes and extremes, and enhancing scientific capacity of the ERE community to keep pace with environmental change and focus on actionable science. She also discussed recent collaborations with the National Oceanic and Atmospheric Administration (NOAA); the value of environmental research to national priorities, including national security, economic competitiveness, and education; and linkages with NSF's 10 Big Ideas.

**Meeting with NSF Leadership** (Dr. France Córdova, Director, NSF; Dr. Joan Ferrini-Mundy, Acting Chief Operating Officer, NSF)

AC members opened the discussion by describing the value provided by the "Big 3" social science surveys. Information from the surveys is used by so many researchers that the multiplier effects are extraordinary. The surveys are always seeking to modernize, and the current "golden age of data" provides an opportunity to enhance and redesign the surveys, and to rethink analytical approaches, linking survey data to administrative and organic data and developing new statistical and computational tools that will protect privacy.

The discussion then shifted to focus on convergence research, which is woven through many of NSF's 10 Big Ideas. Dr. Córdova noted that NSF has a responsibility to evaluate its own funding and merit review processes to ensure these processes encourage convergence research and recognize innovation in all fields of science and engineering. AC members remarked that the scientific community is slowly adapting to these changes. As this shift occurs, NSF needs to bring these researchers on as program officers to help move convergence research forward. Likewise, universities need to change their cultures to promote and reward convergence research and innovation.

The next topic raised was scientific reproducibility and the need to achieve a balance between replication research and innovation. Rigorous scientific methodology is crucial for all research, including innovative, risky research. SBE disciplines and the SBE Directorate are leading the way in identifying replicability problems and seeking solutions. Dr. Córdova also brought up the ongoing challenge of responding when NSF-funded studies are cited as examples of wasteful government spending. AC members suggested as a response strategy building alternative narratives around the audience's core

concerns that intersect with SBE science. In addition, a study comparing research projects on similar topics that were targeted vs. not targeted for negative attention could help identify the root causes that lead individual projects to be questioned.

**NSF Big Idea for Future Investment: *Harnessing Data for 21<sup>st</sup> Century Science and Engineering (HDR)***

(Dr. Chaitanya Baru, Senior Advisor for Data Science, Directorate for Computer & Information Science & Engineering, and Co-Chair, HDR Working Group)

Dr. Baru presented the five overarching themes of [Harnessing Data For 21<sup>st</sup> Century Science and Engineering](#), one of NSF's Big Ideas for Future Investment. 1) "Science Domains" include all scientific and engineering disciplines supported by the Foundation. 2) "Systems and Algorithms" include predictive analytics, data mining, machine learning, benchmark datasets, integrity and accessibility, privacy and protection, and the human-data interface. 3) "Foundations" refer to theoretical foundations for data-driven discovery and decision-making and the analysis and modeling of complex, heterogeneous data. 4) "Cyberinfrastructure" might include a layered, federated architecture for a national cyberinfrastructure, semantic information infrastructure, enabling access to data, and digital repositories. 5) "Education and Workforce" activities would be informed by a research-based understanding of the knowledge and demands of a STEM-capable workforce.

Dr. Baru explained how HDR would enable convergence, supporting collaboration among theoreticians (e.g., from computer science, mathematics, statistics, and computational science), domain scientists, and cyberinfrastructure experts to tackle critical, community-identified, data-driven research challenges. HDR is designed to deal with three data-related challenges: 1) traditional challenges of data curation, provenance, and privacy, etc. that are exacerbated by the availability of large volumes of many types of data; 2) new kinds of data, e.g., from social media, wearable sensors, administrative records, and new instruments; and 3) the frontiers of data science, to methodically address commonalities and develop infrastructure that is agnostic to different disciplines. Commonalities include real time, streaming data; heterogeneous data; and human data. In addition, fairness, bias, ethics, trust, transparency in data science, and machine learning are becoming increasingly important. Potential HDR activities include Research Coordination Networks, Center-scale activities, deploying robust cyberinfrastructure, and accelerating investments in existing data-related programs.

**SBE Perspective** (Dr. Steve Breckler, Acting Deputy Division Director, BCS, and Dr. Cheryl Eavey, Program Director, Methodology, Measurement and Statistics, SBE/SES)

Drs. Eavey and Breckler described how SBE supports investments in data science that address many aspects of the data life cycle, including data access, data analysis, and issues related to reproducibility. Until now, the Directorate's investment in data science has been through special competitions such as [Resource Implementations for Data Intensive Research in the Social Behavioral and Economic Sciences \(RIDIR\)](#); [Data Infrastructure Building Blocks \(DIBBs\)](#); [Critical Techniques, Technologies and Methodologies for Advancing Foundations and Applications of Big Data Sciences and Engineering \(BIGDATA\)](#); [Big Data Regional Innovation Hubs: Establishing Spokes to Advance Big Data Applications \(BD Spokes\)](#); and [Software Infrastructure for Sustained Innovation \(SI2\)](#). In the future, SBE will foster collaborations of SBE researchers with mathematicians/statisticians, software developers, cyberinfrastructure specialists, and others to pursue data science questions of interest to SBE. In the early years of HDR, collaborative activities will be furthered via workshops, Research Coordination Networks, and other networking mechanisms. As resources allow and in the spirit of convergence, SBE hopes to participate in the support of new larger-scale activities with other directorates at NSF.

Topics of particular interest to the SBE research communities are merging “designed data” (e.g., surveys) with “organic data” (e.g., tweets and other social media content); protecting respondents’ confidentiality and privacy while maximizing researcher access to data; capitalizing on advances in cyberinfrastructure to improve data infrastructure; neuroscience research, specifically integrating data organization, analysis, modeling, and central cyberinfrastructure for neuroanatomical and neurophysiological datasets; and smart and connected communities studies, in particular, integrating data across people, space and time, and harnessing data across researchers and research problems. SBE scientists collect and use data and make inferences about humans, other animals, societies, cultures, and environments, over space and time. Investments in cyberinfrastructure will catapult this research in a new direction – not only SBE research, but also the work other disciplines connected to SBE, such as mathematics and biology. The power is in the confluence of data of different types and from different sources – human, societal, environmental, etc.

The general AC discussion following the presentations surfaced a number of topics, including causal inference (an area of high priority for the SBE sciences); building theoretical knowledge into models; and connections between HDR and the other Big Ideas.

**Update on Committee on Equal Opportunities in Science and Engineering (CEOSE) Activities** (Dr. Lydia Villa-Komaroff, CEOSE Liaison)

Dr. Villa-Komaroff first provided the history and background of [CEOSE](#) and described the relationship between the SBE AC liaison and CEOSE. CEOSE is a congressionally-mandated Advisory Committee to the NSF. CEOSE members each serve as a liaison to other NSF Advisory Committees. In addition, liaisons from other federal agencies update CEOSE on their own broadening participation activities.

Dr. Villa-Komaroff presented recent CEOSE activities and highlights to the AC members. These activities include: 1) a workshop titled *Assessing Performance and Developing an Accountability System for Broadening Participation*; 2) the CEOSE Biennial Report, which is prepared and transmitted to Congress and the NSF Director to report on CEOSE-related activities during the previous two years and propose future activities for the next two years; 3) NSF/CEOSE activities going forward in support of Broadening Participation, such as NSF INCLUDES; and 4) a pending report from the Science and Technology Policy Institute analyzing broadening participation funding programs, past and present, from the NSF.

A discussion then ensued among AC members concerning the challenges in measuring success in broadening participation in STEM due to the sparsity of data and the range of investments supporting the activity across NSF. AC members suggested that data on diversity be strengthened and expanded to better monitor progress and identify successes.

**Communications/Legislative Update** (Ms. Aya Collins, Leader, Public Affairs & Media Relations Group, NSF Office of Legislative & Public Affairs (OLPA))

Ms. Collins began her presentation by stating OLPA’s overarching goal to advance the mission of NSF through strategic communications to external audiences, focusing on security, economy, and global leadership. OLPA uses a variety of platforms and tailors content to target specific audiences. OLPA always seeks to expand its audiences. It is working with each directorate to develop an editorial pipeline outlining strategic moments throughout the year, an approach that will increase exposure and allow it to re-purpose content from directorate media pages to bigger audiences. OLPA has developed standard operating procedures for all social media platforms to standardize NSF messaging and branding. The Office is also working to expand stakeholder events for information sharing and to create directorate-specific original stories. Ms. Collins highlighted recent activities on Capitol Hill and encouraged all to

share OLPA's [Congressional toolkit](#). She concluded her presentation with updates on the American Innovation and Competitiveness Act, and the status of the FY 2017 and FY 2018 budget processes, including planned visits by NSF Senior Leadership to Capitol Hill.

Following the presentation, AC members offered suggestions for improving communication of the SBE sciences through "guest" blog posts by SBE-funded investigators and by including more content from the SBE sciences in the videos produced by OLPA.

**Consortium of Social Science Associations (COSSA) Perspective** (Ms. Wendy Naus, Executive Director, COSSA, via WebEx)

Ms. Naus gave a broad overview of [COSSA's](#) history, organization, and its lobbying, member engagement, and public engagement activities. The organization has a staff of registered lobbyists who can respond to events on Capitol Hill in real time. One of COSSA's long term advocacy goals is to engineer a standard definition of Science, Technology, Engineering, and Mathematics (STEM) that would include the social and behavioral sciences. Member engagement involves enabling and equipping COSSA members to advocate for and represent the social science community. Numerous templates and other resources are available on the COSSA website. She noted COSSA's transition document for the incoming Presidential administration, which highlights the importance of federal statistics and data, and the importance of science. COSSA's public engagement activities seek to foster partnerships with key constituencies outside the social science realm, for example through its partnership with the March for Science (May, 2017). COSSA's new [Why Social Science?](#) blog seeks to change the conversation about social science research and its value. It serves as a central repository for easily digestible information that the public can access and appreciate. COSSA launched "Why Social Science?" briefings to Congress, starting with a visit by the SBE-funded economist and Nobel Laureate, Alvin Roth from Stanford University. Recent conversations with Congressional staff have revealed that the challenges and topics of most concern to them include disaster response, healthy drinking water, opioid abuse, and cybersecurity.

The AC discussion following the presentation addressed federal funding for science, public outreach, and increasing COSSA's membership. In response to criticisms of SBE-funded grants, COSSA publishes *Setting the Record Straight*, interviews with targeted researchers who clarify the value of their research. These pieces link back to the original funding sources and enable readers to assess the research project for themselves. COSSA is focusing first on developing the outreach content, testing it on different audiences, and then will seek partners with a broader public reach. As an organization, COSSA is dues-dependent with stable membership of governing members, but would welcome an increase in affiliate members and corporate partnerships. The top 50 research universities are not all members, and many organizations like AAAS serve as partners rather than formal members.

**Federation of Associations in Behavioral & Brain Sciences (FABBS) Perspective** (Dr. Paula Skedsvold, Executive Director, FABBS)

Dr. Skedsvold provided the AC with an overview of [FABBS's](#) structure and its purpose. FABBS is an advocacy group seeking greater support for brain-focused science at NSF, the National Institutes of Health, and the Department of Education. FABBS is a member of the Coalition for National Science Funding, an alliance of approximately 140 member organizations that advocate for increased federal support for basic research. FABBS's advocacy activities include visiting Capitol Hill to highlight the importance of the SBE sciences. In addition, FABBS conducts extensive outreach activities through a variety of platforms. These include representing the FABBS-related sciences as part of the larger scientific enterprise; providing input and analysis to Capitol Hill regarding brain sciences issues;

providing information on state-level funding of brain sciences research to members of Congress; generating Op-ed pieces; and reaching out to the general public. Dr. Skedsvold also presented her perspective of the FY 2018 federal budget, including the forthcoming FY 2018 President's Budget Request, out-year impacts of the American Innovation and Competitiveness Act, and a potential reauthorization of NSF.

**Future meetings, Assignments, and Concluding Remarks** (Dr. Kenneth Bollen, SBE AC Chair; Dr. Fay Lomax Cook, AD, SBE)

The AC identified three topical areas for future exploration and/or potential subcommittee creation: 1) science of science communication; 2) merging new forms of data (e.g., organic and administrative data) with traditional survey data; and 3) diversity. The AC was invited to suggest agenda items for the next AC meeting, which is scheduled for November 2-3, 2017 at NSF's new headquarters in Alexandria, VA.

**The meeting was adjourned at 12:30 p.m.**



This summary was approved by the SBE Advisory Committee at its meeting on November 2, 2017.