Advisory Committee (AC) to the Directorate for Social, Behavioral, and Economic Sciences (SBE)
National Science Foundation (NSF)
Room E 2030, 2415 Eisenhower Avenue, Alexandria, VA 22314
December 6-7, 2018
Meeting Summary

SBE AC Members Present: Dr. Kenneth Bollen, AC Chair, Department of Psychology and Neuroscience and Department of Sociology, University of North Carolina, Chapel Hill; Dr. Christopher Bail, Department of Sociology, Duke 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. John Gabrieli, Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology; Dr. Christopher Kuzawa, Department of Anthropology, Northwestern University; Dr. Jennifer Richeson, Department of Psychology, Yale University; Dr. William Riley, Office of Behavioral and Social Sciences Research, National Institutes of Health (*Ex officio*); Dr. Lydia Villa-Komaroff, Intersections SBD (and Committee on Equal Opportunities in Science and Engineering (CEOSE) liaison); and Dr. Duncan Watts, Microsoft Research.

NSF Staff in Attendance: Dr. France Córdova, Director, NSF; Dr. F. Fleming Crim, Chief Operating Officer, NSF; Mr. Brian Stone, Chief of Staff, NSF; Dr. Arthur Lupia, Assistant Director (AD), SBE; Dr. Kellina Craig-Henderson, Deputy AD, SBE; Dr. Alan Tomkins, Acting Division Director (DD), SBE/Division of Social and Economic Sciences (SES); Dr. Antoinette WinklerPrins, Acting Deputy Division Director (DDD), SES; Ms. Emilda Rivers, DD, SBE/National Center for Science and Engineering Statistics (NCSES); Dr. Samson Adeshiyan, Acting DDD, NCSES; Dr. Marc Sebrechts, DD, SBE/Division of Behavioral and Cognitive Sciences (BCS); Dr. Tamera Schneider, DDD, BCS; Dr. Deborah Olster, Senior Advisor, SBE/Office of the Assistant Director (OAD); Mr. John Garneski, Staff Associate for Budget and Program Analysis, 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. Sylvia James, Acting Deputy AD, Directorate for Education and Human Resources (EHR); Dr. Don Millard, Acting DD, Engineering Education and Centers (EEC) Division, Directorate for Engineering (ENG); Ms. Rhonda Davis, Office Head, NSF Office of Diversity and Inclusion (ODI); Mr. Robert Cosgrove, Compliance Program Manager, ODI; and others.

Summary
This was the second meeting of the SBE AC in 2018. It was attended by NSF staff and interested members of the public. The agenda included the following items: an SBE Directorate update; a review of NSF's sexual harassment policies; roundtables on exciting SBE research in AC member areas and communicating the value of the SBE sciences; and overviews of the Defense Advanced Research Projects (DARPA) Technical Exchange on Complex Social Systems and the Lab @ DC. Other presentations included an update from NCSES, CEOSE and AC-ERE.

Thursday, December 6, 2018

Welcome, Introductions, Review of Draft Summary from May 2018 SBE AC meeting, and Preview of Agenda (Dr. Kenneth Bollen, SBE AC Chair)
Dr. Bollen welcomed everyone to the meeting, and introduced a new AC member, Dr. Christopher Kuzawa, Professor of Anthropology at Northwestern University. Following around-the-table

introductions, the AC voted to accept the summary of the spring 2018 AC meeting. Dr. Bollen then previewed the current meeting agenda.

SBE Directorate Update (Dr. Lupia, AD, SBE)
SBE AD Arthur Lupia updated the AC on SBE staff transitions, the NSF/SBE budget situation (NSF currently operating under a Continuing Resolution), new SBE communications activities, repositioning SBE, and other items.

NSF Sexual Harassment Policy (Ms. Rhonda Davis, ODI, and Mr. Bob Cosgrove, ODI)
NSF/ODI staff provided an overview of Title IX, which prohibits sex discrimination in any educational program or activity conducted by NSF awardees. They also reported the issuance of Important Notice 144, a statement that NSF doesn't tolerate sexual harassment or any kind of harassment within the agency, at grantee organizations, field sites, and the like. NSF also issued ODI Bulletin 1801, which describes NSF staff reporting requirements for harassment, and published a notice in the Federal Register that the Foundation plans to develop a new term and condition for NSF awards that will require awardee organizations to report findings and determinations of sexual harassment. ODI is also establishing a secure online portal for submitting harassment notifications.

Roundtable 1. Exciting SBE Research in AC Member Areas (SBE AC Members)
AC members provided examples of exciting SBE research on a variety of topics:
- The broad effects of societal economic inequality on the rise of nationalism, increasingly reduced trust in government, and participatory democracy;
- The information ecosystem, specifically how to measure, at scale and under real world conditions, how information is produced, consumed, and absorbed by people and the media;
- New platforms for communication, analysis and data collection in the SBE sciences;
- Genetic influences on higher level systems that flexibly respond to environments, to advance understanding of how early experiences shape human potential and health across the lifespan;
- Methodological innovations to tackle threats to the validity of non-experimental research;
- Learning research to inform best practices in early childhood education;
- Humans' reactions to the increasing incorporation of new AI technologies into everyday life; and
- The power of social influence in group identity.

Roundtable 2. Communicating the Value of the SBE Sciences (SBE AC Members)
SBE AC members recommended examples to better describe the value of SBE research to non-SBE audiences:
- SBE research that advances understanding of how and why human beings respond to specific predictable threats in our environment;
- SBE research that illuminates how children learn;
- SBE research to inform and improve decision-making;
- SBE research to solve matching problems, e.g., kidney transplants, medical residencies, school choice;
- SBE research on perception to improve airport security screeners ability to identify one unsafe object among thousands that are benign;
- Research and algorithms to predict success or failure of efforts to integrate refugees into local communities;

- Research to nudge people to engage in cybersecure behavior, e.g., by changing their passwords; and
- Methodologies to measure social and behavioral environments to better understand how gene-environment interactions influence individual outcomes and well-being.

Defense Advanced Research Projects (DARPA) Technical Exchange on Complex Social Systems (Dr. Adam Russell, Program Manager, Defense Sciences Office, DARPA and Dr. Duncan Watts, SBE AC Member)

Dr. Russell began the presentation by describing his DARPA program's research foci that include new experimental platforms and tools to facilitate discovery and quantification, and validation of fundamental measures in social science, behavioral science, and human performance. These efforts are critically important to successfully incorporate an understanding of human behavior into DARPA's more typical technological focus.

Dr. Watts presented an overview of DARPA's Technical Exchange on Complex Social Systems (TECSS) activity. The goals of TECSS were to 1) to identify limitations — practical, theoretical, technological, ethical, etc. — to understanding and predicting complex social systems; and 2) to think about opportunities for responding to these limitations, either by eliminating them, managing them, or developing other kinds of high-impact solutions. The TECCS participants were mostly a non-DARPA crowd who were asked to identify reasonable investments from a DARPA perspective, moving toward tools that decision makers can use effectively. Topics covered during the workshop included the limits to the predictability of complex systems; criteria by which decision makers could determine their confidence in social science research findings; quantification of the impact of contextual factors; measuring progress among collections of related studies and over time; and acceleration of discovery and validation in the SBE sciences through automation.

The discussion following the presentation touched on numerous topics, including potential NSF-DARPA collaborations, how best to synthesize knowledge in the SBE sciences; and DARPA's support of high-risk, high-payoff research and tolerance for failure.

The Lab @ DC: A Platform for Scientific Discovery in Government (Mr. Sam Quinney, Interim Director of The Lab @ DC and Dr. Ryan Moore, Senior Social Scientist, The Lab @ DC and Associate Professor of Government, American University; Ms. Anita Ravishankar, Fellow, The Lab @ DC and DC Metropolitan Police Department)

Mr. Quinney and Dr. Moore presented an overview of the Lab @ DC, which uses scientific insights and methods to test and improve policies and provide timely, relevant, and high-quality analysis to inform the policy and programmatic decisions for the Washington D.C. government. The Lab works across policy areas related to public health, crime, education, regulation, and others. The Lab @ DC collaborates with District agencies to design policies and program interventions that are tailored to the District, based on theory and evidence from academic and industrial research, as well as analyses of available administrative data. This group also conducts high-quality evaluations — including randomized evaluations and rapid, iterative experimentation — to learn how well things work and how to improve; and fosters a scientific community of practice, engaging and collaborating with experts and stakeholders across agencies, universities, and community groups. The presenters described one project in detail, a trial that tested the effects of reminder letters designed with insights from behavioral science on recertification of residents' eligibility for the Temporary Assistance for Needy Families program. The results indicated that the letters were effective at stimulating subjects' recertification and that the version with an open date resulted in more recertifications that a letter with a specific date.

The discussion after the presentation focused on whether other states or cities had programs similar to the Lab @ DC, the Lab's source of funding, how it cultivates relationships with partners, the use of administrative data, and the importance of public outreach and transparency to the Lab's success.

Friday, December 7, 2018

Exploring NSF-NIH Collaborations in the Social and Behavioral Sciences (Dr. William Riley, SBE AC member; Dr. William Klein, Associate Director, Behavioral Research Program, Division of Cancer Control & Population Sciences, National Cancer Institute, NIH; and Dr. Marc Sebrechts, DD BCS)
Dr. Riley presented the results of a comparison of the behavioral and social sciences research portfolios at NIH and NSF. The main conclusions of the analysis are these: 1) NIH and NSF awards in the behavioral and social sciences are predominantly complementary and non-overlapping; 2) In topical clusters of shared interests (e.g., research on the environment, economics, and linguistics), the two agencies focus on largely different sub-topics; and 3) between NIH and NSF/SBE, most social and behavioral science areas appear to be covered, but analyses such as these allow us to determine if there are gap areas.

Dr. Klein, participating remotely, presented on the Social and Behavioral Sciences Subcommittee of the Committee on Science, National Science and Technology Council, Office of Science and Technology Policy. He discussed two of the Subcommittee's recent activities: the interagency report on language and communications, and the National Academies of Science, Engineering, and Medicine workshop on graduate education in the social and behavioral sciences (co-sponsored by NIH's Office of Behavioral and Social Sciences Research and SBE. The Subcommittee is now taking up some new topics that may offer opportunities of NSF-NIH collaboration: decision science, environment and behavior, and big data in social and behavioral sciences.

Dr. Marc Sebrechts began by noting common NIH and SBE framework objectives, such as broadening participation, the conduct of ethical, responsible, and reproducible science, data science, and the need to train graduate students in the SBE sciences to engage in large data science initiatives. He reviewed existing collaborations between the two agencies (Collaborative Research in Computational Neuroscience; Smart and Connected Health) and reviewed several of NSF Big Ideas (NSF INCLUDES; Convergence) that are of interest to both agencies and may offer additional collaborative opportunities.

The discussion after the presentations touched on different training opportunities in data science and computational social science; tracking investigators who transition from NSF to NIH funding; and training junior investigators to succeed in obtaining funding from both agencies as a vehicle to generate more synergistic research.

Meeting with NSF Leadership (Dr. France Córdova, Director, NSF and Dr. F. Fleming Crim, Chief Operating Officer, NSF)
The AC discussed with Drs. France Córdova and F. Fleming Crim current and future SBE and NSF activities, as well topics and discussions from the current SBE AC meeting. As the current meeting was Dr. Bollen's last as SBE AC Chair, Drs. Córdova and Crim thanked him for his leadership and service to the NSF.

NCSES Update (Ms. Emilda Rivers, Division Director, NCSES)

Ms. Rivers provided an overview of NCSES and an update of its activities, including recently surveys and InfoBriefs published since the spring 2018 AC meeting. The ensuing discussion touched on several topics: collection of gender identity/sexual orientation data, the utility of NCSES data on graduate students, postdocs, career paths to inform efforts to re-envision graduate educations; the possibility of merging data on earnings with data on STEM education; and NCSES's continuing efforts to explore disclosure techniques that would allow it to make its data more available to the public for dissemination and analyses.

(CEOSE Update (Dr. Lydia Villa-Komaroff, SBE AC member and CEOSE Liaison)
Dr. Lydia Villa-Komaroff provided a brief report on CEOSE, a committee established in 1980, and mandated to provide a report to Congress on the state of expanded opportunities in science and engineering every two years. Its most recent activity was the 2015-2016 CEOSE Biennial Report, Accountability for Broadening Participation in STEM.

AC-ERE Update (Dr. Ann Bostrom, SBE AC member and AC-ERE Liaison)
Dr. Bostrom provided an overview on the AC-ERE, a cross-directorate Advisory Committee that focuses on environmental research and education activities across the foundation. She updated the AC on the evaluations of the Science, Engineering, and Education for Sustainability (SEES) program, and the Dynamics of Coupled Natural and Human Systems (CNH) Program; and introduced Coastlines and People, an emerging interest area focused on geophysical processes and hazards that impact both the physical coastlines ant eh people that inhabit coastal areas.

NSF INCUDES Update (Dr. Sylvia James, Acting DAD, EHR and Dr. Don Millard, Acting DD, ENG/EEC)
Drs. James and Millard presented an update on the NSF INCLUDES program, noting the importance of connecting it to the existing broadening participation portfolio at NSF. They also discussed the new partnership with Boeing, one of the first businesses to contribute at the national level to INCLUDES. The ensuing AC discussion touched on INCLUDES's partnerships among academic institutions and with other federal agencies, and the Boeing partnership.

Wrap-up, Assignments, Planning for Next SBE AC Meeting (Dr. Kenneth Bollen, SBE AC Chair and Dr. Arthur Lupia, AD, SBE)
Drs. Bollen and Lupia led a discussion of potential agenda items for future meetings, reviewed assignments for follow-up activities, and offered concluding remarks. The next SBE AC Meeting is scheduled for May 2-3, 2019 at NSF Headquarters in Alexandria, VA. Dr. Lupia presented Dr. Bollen with a certificate of thanks and token NSF souvenir to thank him for his service as AC member and Chair. Effective at the spring 2019 AC meeting, Dr. Karen Cook will serve as SBE AC chair.

The meeting was adjourned at 1:11 p.m.

This summary was approved by the SBE AC on May 2, 2019.