Guest Biographies

SHORYA AWTAR, Sc.D. is an Associate Professor of Mechanical Engineering at the University of Michigan, Ann Arbor. His current research and technology development interests include enhanced-dexterity tools for minimally invasive surgery, precision motion systems for metrology and manufacturing applications, electromagnetic actuators, MEMS actuators and motion stages, and energy harvesting. He earned his engineering degrees from the Indian Institute of Technology Kanpur (B.Tech., 1998), Rensselaer Polytechnic Institute (M.S., 2000), and the Massachusetts Institute of Technology (Sc.D., 2004). He worked at the National Institute of Standards and Technology and GE Global Research prior to joining the University of Michigan. He has co-founded two startup companies, FlexDex LLC and HiperNap LLC, to commercialize the technologies developed in his research lab. He has published more than 60 peer-reviewed conferences and journal articles and has two-dozen inventions that are either patented or patent-pending. He has received the U.S. National Science Foundation CAREER Award, the Society of Manufacturing Engineers' Outstanding Young Manufacturing Engineer Award, the American Society of Mechanical Engineers' Leonardo daVinci Award, the General Motors Young Investigator Award, the Society of Automotive Engineers Ralph Teetor Award, and multiple R&D100 Awards, among others, for his innovations in machine and mechanism design.

FAY LOMAX COOK serves as Assistant Director for the Directorate for Social, Behavioral & Economic Sciences (SBE) at the National Science Foundation. SBE's mission is to promote the understanding of people and their lives by supporting research that reveals basic facets of human behavior and helps provide answers to important societal questions and problems. SBE works with other disciplines to ensure that basic research and solutions to problems build on the best multidisciplinary science. SBE also houses a national statistical center that provides mission-critical information about science and engineering in the U.S. and in the world. SBE provides 56 percent of the federal funding for basic research at academic institutions in the SBE sciences.

Cook is a professor at Northwestern University, where she is a faculty fellow of the Institute for Policy Research and a professor of human development and social policy in the School of Education and Social Policy. From 1996 to fall 2012, she directed the Institute for Policy Research at Northwestern University, which is one of the nation's leading centers of nonpartisan, interdisciplinary, policy-relevant research.

Her research focuses on the interrelationships between public opinion and social policy, the politics of public policy, public deliberation, energy policy, and the dynamics of public and elite support for programs for older Americans, particularly Social Security. Cook has lectured around the world and written and published scholarly articles, book chapters and five books, including *Talking Together: Public Deliberation and Political Participation in America* (2009, University of Chicago Press).

Cook has been president of the Gerontological Society of America; a fellow at the Center for Advanced Study in the Behavioral Sciences; and a visiting scholar at the Russell Sage Foundation. She has also been a member of the Expert Panel on Performance Outcome Measurement, U.S. Administration on Aging; a member of the Ford Foundation's research advisory committee on Social Welfare Policy and the American Future; a scientific consultant to the National Institute on Aging; and a member of the North American Program Committee for the International Congress on Gerontology. She is a fellow of the Gerontological Society of America and an elected member of the National Academy of Social Insurance.

Cook received her doctorate from the University of Chicago, where she also completed her master's degree in social policy.

IRENE QUALTERS is Office Head of the Office of Advanced Cyberinfrastructure at the National Science Foundation (NSF). During 2014–2016, she served as Division Director, Division of Advanced Cyberinfrastructure (ACI) in the NSF Directorate for Computer and Information Science and Engineering. In this role, she led ACI in its mission to support and coordinate the prototyping, development, acquisition, and provisioning of state-of-the-art cyberinfrastructure resources, tools, and services essential to the advancement and transformation of science and engineering.

After 30 years of industry experience leading R&D technology teams for companies such as Cray Research, Silicon Graphics, Merck and AGEIA, Qualters joined NSF in December 2009, as Program Director in the Office of Cyberinfrastructure (OCI). At NSF, her expertise in parallel design for hardware and software, storage and data management, system and application software, and project management for science research has been applied to large awards such as "Blue Waters" and "Stampede."

MICHAEL SIEVERTS is Division Director of the Budget Division at the National Science Foundation. He has 25 years of Federal government experience in budgeting, policy analysis, and public and legislative affairs.

The Budget Division, located within the Office of Budget, Finance and Award Management (BFA), is responsible for the development, analysis, and execution of the Foundation's annual budget requests to the Office of Management and Budget and the Congress. This responsibility encompasses budget formulation and development, implementation and management of operating plans, special analyses, performance reporting and monitoring, and assisting in the development of strategic and long-range plans for the Foundation.

Previously at NSF, he worked for 10 years in the Office of Legislative and Public Affairs (OLPA), working as a policy analyst, speechwriter, section head, and as Acting Director. Before joining NSF, Sieverts was a budget analyst from 1986 to 1991 at the U.S. Congressional Budget Office.

He holds a Master of Public Policy from the Goldman School of Public Policy at the University of California at Berkeley, and a B.S. in physics from Guilford College in Greensboro, N.C.