

Implications of “Convergence” for How the National Center for Science And Engineering Statistics Measures the Science and Engineering Workforce - A Workshop

Committee

Barbara Entwisle

Chair

BARBARA ENTWISLE is Kenan distinguished professor of sociology and fellow of the Carolina Population Center (CPC) at the University of North Carolina, Chapel Hill. She also holds adjunct and affiliate faculty positions in geography and the environment, energy, and ecology. Prior to this, Dr. Entwisle served as vice-chancellor for research at UNC-Chapel Hill, leading a campus-wide research program with nearly one billion dollars in annual research expenditures; overseeing 10 research development, support, and compliance offices; and managing 15 pan-university research centers and institutes, including the CPC. Her research efforts focus on two main areas—population/environment interactions and migration and the life course. She has served on several committees of the National Academies of Sciences, Engineering, and Medicine, including chair of the Standing Committee on the Future of Major NSF-Funded Social Science Surveys, and as a member of the Board on Research Data and Information and the Committee on Population. Dr. Entwisle has a Ph.D. in sociology from Brown University.

Kara Hall

Member

KARA HALL is a health scientist, director of the Science of Team Science (SciTS) Team, and director of the theories initiative in the Health Behaviors Research Branch at the National Cancer Institute (NCI). Dr. Hall has focused on advancing the SciTS field by developing new metrics, measures, and models for understanding and evaluating transdisciplinary research, collaboration, and training. She aims to facilitate team science programs and projects by advancing organizational supports e.g., tenure and promotion policies, using innovative grant mechanisms, and developing tools to support scientists engaging in and studying team science. Dr. Hall served as co-chair for a trans-agency subcommittee on collaboration and team science of the Federal Networking and Information Technology Research and Development Program in the National Science and Technology Council in the Executive Office of the President. She has a Ph.D. in psychology from the University of Rhode Island.

James B. Holbrook

Member

JAMES BRITT HOLBROOK is assistant professor in the Department of Humanities at New Jersey Institute of Technology. Dr. Holbrook has held teaching positions at Emory University, Georgia State University, and Georgia Tech and was previously research assistant professor in the Department of Philosophy and Religion Studies at the University of North Texas, where he also served as assistant director of the Center for the Study of Interdisciplinarity (CSID). His teaching and research explore the value of knowledge and his work focuses on knowledge institutions (the university and science and technology funding agencies, in particular), the evaluation of knowledge (to include not only scholarly outputs, but also broader societal impacts), and the role knowledge users ought to play in answering the question of the value of knowledge (moving beyond coproduction of knowledge to explore the question of who should count as a 'peer'). Dr. Holbrook has a Ph.D. in philosophy from Emory University.

Pramod P. Khargonekar

Member

PRAMOD P. KHARGONEKAR is vice-chancellor for research and distinguished professor of electrical engineering and computer science at the University of California, Irvine. He is an expert in control and systems theory, and applications to manufacturing, renewable energy, and biomedical engineering. Dr. Khargonekar is particularly interested in understanding and improving processes that connect research to innovation. He has served on the faculty at the University of Florida, University of Minnesota, University of Michigan, and University of California, Irvine. In 2012-13, he served as deputy director of technology at the U.S. Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) and in 2013, the National Science Foundation (NSF) appointed him to serve as assistant director for the Directorate of Engineering, a position he held until June 2016. At NSF, Dr. Khargonekar promoted efforts to address science, technology, engineering, and mathematics issues at all educational levels, with an emphasis on improving opportunities and outcomes for women and underrepresented minorities in engineering. He has a Ph.D. in electrical engineering from the University of Florida.

Julie T. Klein

Member

JULIE THOMPSON KLEIN is professor of humanities (emerita) in the English Department and former faculty fellow for interdisciplinary development in the Division of Research at Wayne State University, and International Research Affiliate in the Transdisciplinarity Lab at the ETH-Zurich Federal Institute of Technology in Switzerland. Dr. Klein is past-president of the Association for Integrative Studies (AIS) and former editor of the AIS journal, *Issues in Integrative Studies*. She has authored or edited several books, including: *Oxford Handbook on Interdisciplinarity; Interdisciplinarity: History, Theory, and Practice; Interdisciplinary Studies Today; Crossing Boundaries: Knowledge, Disciplinarity, and Interdisciplinarity; Transdisciplinarity: Joint Problem Solving among Science, Technology, and Society; Mapping Interdisciplinary Studies; and Humanities, Culture, and Interdisciplinarity: The Changing American Academy*. In addition to helping numerous colleges and universities develop interdisciplinary programs, Dr. Klein was a member of the Association of American Colleges and Universities' first national Task Force on Interdisciplinary Studies. She has a Ph.D. in English from the University of Oregon.

Jason Owen-Smith

Member

JASON OWEN-SMITH is research professor in the Institute for Social Research Survey Research Center and professor of sociology at the University of Michigan. He is also co-founder and executive director of the Institute for Research on Innovation and Science, which collects, curates, and shares data to help understand, explain, and eventually improve the public value of investments in academic research. Dr. Owen-Smith works on projects that examine the dynamics of high-technology industries, the public value of the research university, and the network organization of surgical care. He seeks to understand how organizations, institutions, and networks can maintain the status quo while generating novelty through social transformations, scientific discoveries, and technological breakthroughs. He is the author of the book *Research Universities and the Public Good: Discovery for an Uncertain Future*. Dr. Owen-Smith has a Ph.D. in sociology from the University of Arizona.

Jolene Smyth

Member

JOLENE SMYTH is associate professor and director of the Bureau of Sociological Research at the University of Nebraska-Lincoln. Her research focuses on survey methodology and gender. Dr. Smyth believes strongly in the importance of high quality data to improve science and policy, and the methodology research questions she pursues are largely shaped by changes occurring in the survey industry that raise important questions about data quality. Dr. Smyth's recent work focuses on improving the National Science Foundation's science and engineering surveys. She is co-author of the book *Internet, Phone, Mail, and Mixed-mode Surveys: The Tailored Design Method* and she serves on the editorial board of *Public Opinion Quarterly*. In 2017, she was co-recipient of the Warren J. Mitofsky Innovator's Award from the American Association for Public Opinion Research. Dr. Smyth has a Ph.D. in sociology from Nebraska University.