

Participants

- **Mark Adkins**, Center for the Management of Information, University of Arizona
- **Carol Alderson**, Grants Policy Office, NIH
- **Jennifer Barron**, University Research Projects Administration, Johns Hopkins University
- **Teresa Behrens**, W.K. Kellogg Foundation
- **L. Vaughn Blankenship**, Public Administration, University of Illinois at Chicago
- **Eric Block**, Chemistry Department, University at Albany, SUNY
- **Scott Borg**, Office of Polar Programs, NSF
- **Larry Brandt**, Division of Experimental and Integrative Activities, NSF
- **Diane Bronzert**, National Cancer Institute, NIH
- **Carolyn Carpenter**, W.K. Kellogg Foundation
- **David Carter**, Office of the Director, NIH
- **Audrey Champagne**, Educational Theory and Practice, University at Albany, SUNY
- **Indushobha Chengalur-Smith**, Management Science and Information Systems, University at Albany, SUNY
- **Edward Cherian**, Directorate for Math and Physical Sciences, NSF
- **Anthony Coelho, Jr.**, National Institute of Allergy and Infectious Diseases, NIH
- **Megan Columbus**, National Institute of Allergy and Infectious Diseases, NIH
- **Noshir Contractor**, Speech Communication and Psychology, University of Illinois at Urbana-Champaign
- **Katharine Covert**, Division of Chemistry, NSF
- **Robert Crangle**, Rose & Crangle, LTD
- **Jonathon Cummings**, Human-Computer Interaction Institute, Carnegie Mellon University
- **Allen Czarra**, National Institute of Allergy and Infectious Diseases, NIH
- **Alan Dennis**, Accounting and Information Systems Department, Indiana University
- **Jacqueline DiStefano**, University at Albany, SUNY
- **Kim Elliott**, Division of Astronomical Sciences, NSF
- **Bud Erickson**, National Cancer Institute, NIH
- **Joyce Evans**, Division of Elementary, Secondary, and Informal Education, NSF
- **George Fertig**, Ford Foundation
- **Richard Foster**, W.K. Kellogg Foundation
- **Timothy Gage**, Anthropology Department, University at Albany, SUNY
- **David Garver**, eGrants Best Practices
- **Geoffrey Grant**, Research Administration, Stanford University
- **Mark Green**, National Institute on Drug Abuse, NIH
- **Irene Grissom**, National Center for Research Resources, NIH
- **John Grzechowiak**, Division of Grants and Agreements, NSF
- **Marcia Hahn**, National Institute of Allergy and Infectious Diseases, NIH
- **Steve Hausman**, National Institute of Arthritis and Musculoskeletal Skin Diseases, NIH
- **Charles Havekost**, U.S. Department of Health and Human Services
- **Sharon Hays**, U.S. House of Representatives
- **Rona Smyth Henry**, Robert Wood Johnson Foundation
- **Hortencia Hornbeak**, National Institute of Allergy and Infectious Diseases, NIH
- **Cheryl-Lee Howard**, University Research Projects Administration, John Hopkins University
- **Philip Ianna**, Division of Astronomical Sciences, NSF
- **Eric Itsweire**, Division of Ocean Sciences, NSF
- **Katina Jocktane**, Center for Information Technology, NSF
- **Paul Johnson**, National Institute of Child Health and Human Development, NIH
- **John P. Keating**, Chancellor, University of Wisconsin-Parkside
- **Janice Kehn**, Purchasing Department, University at Albany, SUNY
- **Bradley Keister**, Division of Physics, NSF
- **Susan Kemnitzer**, Division of Engineering Education, NSF
- **Elaine Kranich**, Ford Foundation
- **Akhil Kumar**, Leeds School of Business, University of Colorado at Boulder
- **Kathleen Larmett**, Executive Director, National Council of University Research Administrators
- **Robert Long**, W.K. Kellogg Foundation
- **Jane Isaacs Lowe**, Robert Wood Johnson Foundation
- **Gregory Lyman**, W.K. Kellogg Foundation
- **Juan Manfredi**, Division of Mathematical Sciences, NSF

- **Paul Markovitz**, National Institute of Allergy and Infectious Diseases, NIH
- **Michael Martinez**, Division of Research, Evaluation and Communication, NSF
- **Linda Massaro**, Office of Information and Resource Management, NSF
- **John J. McGowan**, National Institute of Allergy and Infectious Diseases, NIH
- **Gregory Milman**, Office of Innovation and Special Programs, NIH
- **James Momoh**, Division of Electrical and Communications Systems, NSF
- **Jeryl Mumpower**, Office of the Provost and Vice President for Academic Affairs, University at Albany, SUNY
- **Mary Murphy**, Center on English Learning and Achievement, University at Albany, SUNY
- **William Neufeld**, Division of Research, Evaluation and Communication, NSF
- **Margy O'Brien**, Office of Sponsored Programs, University at Albany, SUNY
- **Robert Osuna**, Biological Sciences, University at Albany, SUNY
- **Charles Paoletti**, Office of Naval Research
- **Anne Petersen**, W.K. Kellogg Foundation
- **Elizabeth Quackenbush**, Office of Sponsored Programs, University at Albany, SUNY
- **Florence Rabanal**, Directorate for Math and Physical Sciences, NSF
- **Joseph Reed**, Division of Educational System Reform, NSF
- **Michael Rothman**, Robert Wood Johnson Foundation
- **Lillie Ryans-Culclager**, Office of Sponsored Research, Stanford University
- **Art Saenz**, Division of Information Systems, NSF
- **Mary Santonastasso**, Division of Grants and Agreements, NSF
- **Philip Scamihorn**, W.K. Kellogg Foundation
- **Walter Schaffer**, Research Training Office, NIH
- **Kathryn Schiller**, Educational Administration, University at Albany, SUNY
- **Charles Scholes**, Chemistry Department, University at Albany, SUNY
- **Albert Shar**, Robert Wood Johnson Foundation
- **Everett Sinnett**, Center for Scientific Review, NIH
- **Gloria Smith**, W.K. Kellogg Foundation
- **Scott South**, Sociology Department, University at Albany, SUNY
- **Brad Stanford**, Office of Naval Research
- **Linda Stecklein**, National Institute of Allergy and Infectious Diseases, NIH
- **Tom Stewart**, Center for Policy Research, University at Albany, SUNY
- **Caro-Beth Stewart**, Biological Sciences, University at Albany, SUNY
- **Fred Stollnitz**, Division of Integrative Biology and Neuroscience, NSF
- **Jerry Stuck**, National Institute of Allergy and Infectious Diseases, NIH
- **Sandra Swab**, Office of Management and Budget, Health and Human Services
- **Derrick Tabor**, National Institute of General Medical Sciences, NIH
- **Carol Tippery**, National Institute of Dental and Craniofacial Research, NIH
- **Richard Toth**, Robert Wood Johnson Foundation
- **Lan Tran**, Tangibles Software
- **Sharon Tubay**, W.K. Kellogg Foundation
- **Elizabeth VanderPutten**, Division of Research, Evaluation & Communication, NSF
- **Kirt Vener**, National Cancer Institute, NIH
- **Ali Webb**, W.K. Kellogg Foundation
- **Frederic Wendling**, Office of Information and Resource Management, NSF
- **Paul Werbos**, Division of Electrical and Communications Systems, NSF
- **Francis Wodarczyk**, Division of Chemistry, NSF
- **Trudy Wood**, Office of Procurement and Assistance Policy, Department of Energy
- **Daniel Wulff**, Biological Sciences, University at Albany, SUNY
- **Richard Zitomer**, Biological Sciences, University at Albany, SUNY

Methodology

This report is the result of a one-year effort to understand the research enterprise in the United States and the world of possibilities for its future. In particular, the study sought to re-envision the proposal and grant management functions in government organizations that award research grants, and to explore how process changes and advanced information technologies could support that transformation. The Center for Technology in Government conducted this research in cooperation with the National Science Foundation and the National Institutes of Health.

Best and Current Practices Research

Document and Web Search

Purpose: To provide background information on public and private large-scale research grants-making organizations, and to explore best practices for comparison with interview data and for later consideration of potentially useful innovations.

Procedures: This work involved searching both paper documents and Web sites for information on: the agencies central to this research project; the legislative and larger federal environment in which they work; other federal grants-making agencies; private for-profit and non-profit organizations involved in funding research; and organizational and technological innovations relevant to this enterprise.

Results: This information gathering resulted in short reports regarding: agency and foundation profiles; the Federal Commons Project, Electronic Research Administration (ERA), the Interagency Electronic Grants Committee (IAEGC); organizational issues and innovations; technology issues and innovations; and experiences with innovations.

Interviews

Purpose: To hear about grants-making in very large organizations, and about the challenges, opportunities for improvement and growth, and visions for such organizations from various perspectives within the grants-making community.

Procedures: In-depth, unstructured interviews were generally conducted in person with two researchers and were recorded using audiotapes and fieldnotes. Interviews were held at the interviewees' institution and involved both groups and individuals. After September 11, the researchers successfully used video-conferencing technology to approximate the in-person process. Interviews were organized in three groups, including: 19 NSF and 20 NIH senior staff involved in different aspects of the granting process; 16 senior staff from other granting organizations, both private and public, selected by size and by nature of grant provision as comparable to NSF/NIH; and 17 university faculty staff experienced in NSF and/or NIH grants processes as proposers, grantees, reviewers, program officers, and/or administrators. Participants were asked to: describe the work they do as part of the research enterprise; assess the extent to which technology is already integrated into that work; consider the organizational and individual value embedded in that work; and suggest improvements that would help develop the ideal granting agency of the future.

Result: Interviewees' experiences and suggestions for broad-scale change were used, along with other best practices data, to develop descriptions of ideal characteristics of a granting agency of the future and a draft vision of such an organization. These were presented back to NSF and NIH interviewees at the December 2001 Workshop for critical feedback.

Workshops

December 2001 Workshop, Washington, D.C.

Purpose: To identify the relative importance of ideals drawn from the interview data and to clarify what steps toward developing these ideals were feasible with the help of further research.

Procedure: The first workshop involved 18 participants drawn from NSF and NIH interviewees. Framed by "a draft vision of an ideal government granting organization," the workshop comprised presentations and large- and small-group discussions on beneficiaries, barriers and enablers in the areas of strategy, political relationships, stakeholder relationships, organization, processes, and information technology.

Result: Participants prioritized characteristics in terms of importance and "doability." Themes for a future research agenda emerged from discussions of those considered most important but in need of further research in order to become feasible.

March 2002 Workshop, Arlington, Va.

Purpose: To refine the vision; to discuss the challenges regarding value, workflow, knowledge, collaboration, and technology; and to recommend a research agenda that addresses them.

Procedure: The second workshop involved 37 participants from a range of federal agencies, private foundations, universities, and related professional associations. The workshop began with a panel discussion on what we value in the research enterprise, followed by a series of expert presentations from invited speakers and small-group discussions on: relevant organizational, policy, and technology initiatives; emergent streams of research; and what actions and knowledge are needed to achieve the ideal.

Result: This workshop took the vision from the level of ideal granting agency to ideal research enterprise. The data gathered in the workshop, together with earlier findings and expert knowledge, were used to formulate recommendations about what must be done in the research enterprise to achieve the vision. These are presented in the body of this report.