

NATIONAL SCIENCE BOARD WORKSHOP

Committee on Strategy and Budget Task Force on Cost Sharing

Roundtable Discussion on Cost Sharing

National Science Foundation
4201 Wilson Boulevard
Room 1235
Arlington, Virginia
December 7, 2007

AGENDA

- 8:00 a.m. **Welcoming Remarks**
- Dr. Kelvin K. Droegemeier, Member, National Science Board and Chair, Board Task Force on Cost Sharing
- 8:05 a.m. **Motivation, Purpose and Goals**
- Dr. Droegemeier
- 8:15 a.m. **Process and Logistics for Board Workshops**
- Dr. Michael P. Crosby, Executive Director, National Science Board
- 8:25 a.m. **Introduction of Participants**
- 8:35 a.m. **Remarks: History of Cost Sharing in Federally Funded Research and Key Issues in Cost Sharing**
- Speakers: Robert Hardy, Director, Contracts and Intellectual Property Management, Council on Governmental Relations (COGR) and Anthony DeCrappeo, President, Council on Governmental Relations (COGR)
- 9:20 a.m. **Direct and Indirect Impacts of Cost Sharing on the University Research Enterprise**
- Discussion Moderator: Howard Gobstein, Vice President for Research and Science Policy, National Association of State Universities and Land-Grant Colleges (NASULGC) and Robert McGrath, Senior Vice President for Research, The Ohio State University and Chair, Council on Research Policy and Graduate Education (CRPGE), National Association of State Universities and Land-Grant Colleges (NASULGC)

Discussion Item: The Board is examining the effects of cost sharing requirements on the academic R&D enterprise and the extent to which cost sharing impedes or promotes strategic financial investments in research by colleges and universities. Of further interest is the impact of cost sharing on the overall costs of academic R&D borne by universities and colleges.

10:10 a.m. **Break**

10:25 a.m. **The Nature and Role of Cost Sharing in the Proposal Decision Process**

Discussion Moderator: Arthur Bienenstock, Special Assistant to the President for the SLAC National Accelerator Laboratory and Federal Research Policy, Stanford University

Discussion Item: The Board is examining the fundamental philosophy of mandated and voluntary cost sharing in Federally funded research. Regarding voluntary cost sharing (or institutional commitment), the Board is specifically examining the extent to which these resources should be regulated and monitored, and the extent to which they should be considered as part of the peer review or agency decision processes if they bear on the investigator's or institution's ability to complete the proposed work.

11:15 a.m. **Lunch**

12:30 p.m. **Impacts of Cost Sharing on University-Industry Research Partnerships**

Discussion Moderator: C.D. (Dan) Mote, Jr., President, University of Maryland at College Park and Co-Chair, Government-University-Industry Research Roundtable (GUIRR)

Discussion Item: The Board is examining whether cost sharing policies can be tailored for effective application to specific types of programs (such as those involving industry), and whether the elimination of non-statutory cost sharing has had a positive or negative impact on those specific types of programs.

1:20 p.m. **Reporting and Auditing of Cost Sharing: Agency and Institutional Perspectives**

Discussion Moderator: Sarah Wasserman, former Assistant Vice Chancellor for Research, University of Illinois at Urbana-Champaign

Discussion Item: The Board is examining the nature and magnitude of the challenges for both Federal agencies and grantee institutions in tracking and reporting both mandatory and voluntary cost sharing.

2:10 p.m. **Break**

2:25 p.m. **Preventing the “Have”/“Have Not” Gap in University Competition for Federal Research Grants**

Discussion Moderator: Irwin Feller, Professor Emeritus of Economics, Pennsylvania State University

Discussion Item: The Board is examining the extent to which cost sharing impacts participation in Federal research funding opportunities.

3:15 p.m. **Roundtable Discussion: Options for Revision to Board Cost Sharing Policy for NSF**

Discussion Moderator: Dr. Droegemeier

4:15 p.m. **Summary and Next Steps**

4:30 p.m. **Adjourn**

**National Science Board
Task Force on Cost Sharing
Roundtable Discussion
December 7, 2007**

List of Participants

National Science Board Members

Dr. Steven C. Beering, Chairman	President Emeritus, Purdue University, West Lafayette
Dr. Mark R. Abbott*	Dean and Professor, College of Oceanic and Atmospheric Sciences, Oregon State University
Dr. Ray M. Bowen	President Emeritus, Texas A&M University, College Station
Dr. Kelvin K. Droegemeier* Task Force Chairman	Associate Vice President for Research, Regents' Professor of Meteorology and Weathernews Chair, University of Oklahoma, Norman
Dr. Jon C. Strauss*	President Emeritus, Harvey Mudd College
Dr. Thomas N. Taylor*	Roy A. Roberts Distinguished Professor, Department of Ecology and Evolutionary Biology, Curator of Paleobotany in the Natural History Museum and Biodiversity Research Center, The University of Kansas, Lawrence
Dr. Richard F. Thompson*	Keck Professor of Psychology and Biological Sciences, University of Southern California
Dr. Arden L. Bement, Jr., <i>ex officio</i>	Director, National Science Foundation
Dr. Michael P. Crosby	Executive Officer, National Science Board

* *Task Force Member*

Participants

Dr. Robert Berdahl	President, Association of American Universities (AAU)
Dr. Arthur Bienenstock	Special Assistant to the President for Federal Research Policy, Stanford University
Dr. Henry Blount	Head, Office of Experimental Program to Stimulate Competitive Research (EPSCoR), National Science Foundation
Dr. Christine Boesz	Inspector General, National Science Foundation
Dr. Richard Buckius	Assistant Director, Directorate for Engineering, National Science Foundation
Dr. Elizabeth Curtler	Assistant Vice President, Foundation, Corporate and Government Relations, University of Richmond
Mr. Anthony DeCrappeo	President, Council on Governmental Relations (COGR)
Dr. Irwin Feller	Senior Visiting Scientist, American Association for the Advancement of Science (AAAS) and Professor Emeritus, Economics, Pennsylvania State University
Mr. Howard Gobstein	Vice President, Research and Science Policy, National Association of State Universities and Land-Grant Colleges (NASULGC)
Mr. David Goldston	Visiting Lecturer and Practitioner-in-Residence, Woodrow Wilson School of Public and International Affairs, Princeton University
Mr. Robert Hardy	Director, Contracts and Intellectual Property Management, Council on Governmental Relations (COGR)
Mr. Jack Kameron	Retired Director of Grants and Contract Administration, University of Illinois at Urbana-Champaign
Dr. Robert McGrath	Senior Vice President for Research, The Ohio State University
Dr. C.D. (Dan) Mote, Jr.	President, University of Maryland at College Park and Co-Chair, Government-University-Industry Research Roundtable (GUIRR)

Dr. Michael Reischman	Deputy Assistant Director, Directorate for Engineering, National Science Foundation
Dr. Richard Seligman	Associate Vice President for Research Administration, California Institute of Technology
Mr. John Walda	President and Chief Executive Officer, National Association of College and University Business Officers (NACUBO)
Ms. Sarah Wasserman	Former Assistant Vice Chancellor for Research, University of Illinois at Urbana-Champaign

NATIONAL SCIENCE BOARD WORKSHOP

Committee on Strategy and Budget
Task Force on Cost Sharing

Roundtable Discussion on Cost Sharing 2
Voluntary Cost Sharing: Specification, Tracking, and Role in the NSF Decision Process

National Science Foundation
4201 Wilson Boulevard
Room 1235
Arlington, Virginia
July 9, 2008

AGENDA

- 8:00 a.m. **Welcoming Remarks**
- Dr. Kelvin Droegemeier,* Member, National Science Board and Chair, Task Force on Cost Sharing
- 8:05 a.m. **Motivation, Purpose and Goals**
- Dr. Droegemeier
- 8:15 a.m. **Process and Logistics for Board Workshops**
- Dr. Craig Robinson, Acting Executive Officer, National Science Board
- 8:20 a.m. **Introduction of Participants**
- 8:30 a.m. **Remarks: Brief History of NSF Cost Sharing Policy, Overview of Challenges, and February 2008 Report to Congress**
- Speaker: Dr. Droegemeier
- 9:00 a.m. **Discussion Session 1: Voluntary Cost Sharing and NSF Program Goals**
- Mandatory cost sharing plays a relatively well-understood role and is subject to straightforward implementation strategies in the Federal grant funding process. Mandatory cost sharing refers to those resources required from grantee institutions by particular Federal agencies, usually with different requirements for different programs and solicitations. The fundamental role of voluntary cost sharing*

* Task Force Member

is less clear in the Federal grant funding process, although the resources and impacts associated with such sharing clearly are significant. Voluntary cost sharing describes resources made available to a given project solely at the discretion of the grantee institution performing the research; these resources can be committed (pledged formally in the proposal and made a binding condition of the award) or uncommitted (not formally pledged in the proposal and approved budget, but subsequently made available to the project). Voluntary cost sharing is not regulated by NSF policy, but contributions offered in an NSF proposal during the NSF decision process are considered binding and auditable contributions upon award of the grant.

1. What role does voluntary cost sharing play in establishing the structure, goals, and budgets of NSF programs and solicitations?
2. What role does voluntary cost sharing play in actually achieving the goals of particular NSF programs and the grants they fund?
3. How would the quality and quantity of research funded by NSF be impacted if voluntary cost sharing were restricted or eliminated?

Discussion Moderators: Dr. Mark Abbott,* Ms. Lynn Preston

10:00 a.m. **Break**

10:15 a.m. **Discussion Session 2: Voluntary Cost Sharing and Institutional Competitiveness in NSF Grant Funding**

The Board's 2004 policy that eliminated program-specific mandatory cost sharing for all NSF programs was motivated in part by concerns that the difficulty for some institutions to provide cost sharing inhibited or eliminated their ability to compete for NSF funding. The 2004 policy effectively eliminated ability to provide cost sharing as a factor in institutional competitiveness in NSF funding opportunities. Voluntary cost sharing is not regulated by NSF policy and remains a factor that may impact relative institutional competitiveness in all NSF funding opportunities. Relative ability to provide voluntary cost sharing may give advantage to certain types of institutions. On the other hand, ability to provide voluntary cost sharing may assist institutions in building research capacity, infrastructure, and program sustainability.

1. To what extent is voluntary cost sharing necessary for a proposal or institution to be competitive in NSF funding opportunities?
2. To what extent does the type or nature of an institution impact its ability to provide voluntary cost sharing?
3. In what ways could voluntary cost sharing be used to stimulate participation and enhance competitiveness in NSF funding opportunities without providing an unfair advantage to any particular type of institution?

Discussion Moderators: Dr. Jon Strauss,* Dr. Eva Pell

* Task Force Member

11:15 a.m.

Discussion Session 3: Voluntary Cost Sharing in NSF Merit Review Process

Voluntary cost sharing is not regulated by NSF policy, and NSF has no formal method during the merit review process by which to account for or evaluate voluntary cost sharing. General NSF practice is for program officers to not consider any offers of voluntary cost sharing during the merit review process. However, institutional resources offered in a proposal as voluntary cost sharing may be apparent to reviewers during the merit review process. Such offers may be articulated formally in the proposal narrative, in letters of support, or in the budget (e.g., faculty claiming zero salary for time contributed to the project). Resources provided as voluntary cost sharing may bear on the principal investigator (PI) or institution's ability to complete the work described in a proposal.

NSF Perspective Target Questions

1. How is voluntary cost sharing currently handled in the NSF merit review process?
2. What are the positive and negative implications of formally considering voluntary cost sharing in the NSF merit review process?
3. What are possible means by which voluntary cost sharing could be formally and objectively considered as part of the NSF merit review process?

Institutional Perspective Target Questions

1. What institutional practices are followed for including voluntary cost sharing on proposals submitted to NSF? To what extent do principal investigators and sponsored programs officials coordinate to ensure that voluntary cost sharing commitments are communicated effectively to both NSF and their institution?
2. How should principal investigators express voluntary cost sharing in their proposals? What are effective internal institutional processes that would ensure the fulfillment of voluntary cost sharing commitments?
3. What institutional perceptions exist regarding the importance and evaluation of voluntary cost sharing in the NSF merit review process?
4. What are possible means by which voluntary cost sharing could be formally and objectively considered as part of the NSF merit review process?

Synthesis Questions

1. Philosophically, to what extent should voluntary cost sharing formally enter the NSF merit review process?
2. Mechanistically, what are possible means by which voluntary cost sharing could be formally and objectively considered as part of the NSF merit review process? Should all voluntary cost sharing be “committed”?

Discussion Moderators: Dr. Droegemeier, Dr. Thomas Taylor*

* Task Force Member

12:15 p.m. **Lunch (Room 1235, provided for Roundtable 2 and Roundtable 3 participants)**

Presentations: State-Level Perspectives on Cost Sharing

- Dr. Thomas Armstrong, University Liaison and Nanotechnology Program Manager, Technology Investment Office, Department of Community and Economic Development, State of Pennsylvania
- Dr. Paul Hill, Vice Chancellor, Division of Science and Research, West Virginia Higher Education Policy Commission

1:30 p.m. **Break**

2:00 p.m. **Discussion Session 4: Types, Sources, and Timing of Voluntary Cost Sharing**

Currently, institutions applying for NSF grants may commit voluntary cost sharing resources in any form allowable under OMB Circular A-110 (2 CFR § 215.23). All cost sharing resources can be contributed toward any category of project cost and must be allowable (according to Federal cost principles in Circulars A-21 and A-110 [2 CFR § 215]), allocable (with direct benefit to the award), necessary (needed to carry out the objectives of the award), reasonable (what a prudent business person would pay), and contributed toward costs incurred during the award period. For some NSF programs, certain types of cost sharing resources may be more appropriate (e.g., cash industry membership fees in the I/UCRC program). Some institutions may be more able to contribute resources in certain forms. Certain types of resources may bear differently on the ability to achieve the goals of NSF programs and particular grants funded by the programs.

1. What are the relative merits of cash and in-kind cost-shared resources? What types of resources should institutions be permitted to bring to NSF projects? What types of resources should not be allowed?
2. What is the relative value of cash and in-kind cost sharing to NSF? To different types of institutions?
3. Would certain types of institutions be unfairly impacted if cost sharing were restricted to cash only?

Discussion Moderators: Dr. Droegemeier, Ms. Jean Feldman, Mr. Charles Zeigler

3:00 p.m. **Discussion Session 5: Tracking and Reporting Cost-Shared Resources**

The Board's 2004 policy that eliminated program-specific cost sharing for all NSF programs was motivated in part by concerns about the difficulties of documentation and satisfaction of cost sharing obligations and the burden on grantee institutions of tracking and reporting cost-shared resources. Federal agencies and grantee institutions are required to maintain auditable records for direct research costs and mandatory cost sharing. Voluntary cost sharing resources offered in an NSF proposal during the NSF decision process are also considered binding and auditable contributions upon award of the grant.

1. What are the nature and magnitude of challenges, both for NSF and grantee institutions, in tracking and reporting both mandatory and voluntary cost sharing? How do the challenges differ for cash and in-kind cost sharing?
2. What are the impacts of time and effort reporting and agency funding regulations (e.g., restrictions on payment of summer salary) on tracking and reporting both mandatory and voluntary cost sharing?
3. What are possible ways to mitigate the challenges of tracking and reporting cost sharing?
4. What consequences should institutions be subject to when they fail to fulfill cost sharing obligations?

Discussion Moderators: Dr. Camilla Benbow,* Dr. Susan Sedwick

4:00 p.m.

Break

4:15 p.m.

Plenary Discussion

Discussion Moderator: Dr. Droegemeier

5:00 p.m.

Summary and Next Steps

5:15 p.m.

Adjourn

5:30 p.m.

Reception (Room 390, for Roundtable 2 and Roundtable 3 participants)

* Task Force Member

**National Science Board
Task Force on Cost Sharing**

Roundtable Discussion 2
Voluntary Cost Sharing: Specification, Tracking, and Role in the NSF Decision Process
July 9, 2008

List of Participants

National Science Board Members

Dr. Steven C. Beering, Chairman	President Emeritus, Purdue University, West Lafayette
Dr. Mark R. Abbott*	Dean and Professor, College of Oceanic and Atmospheric Sciences, Oregon State University
Dr. Dan E. Arvizu	Director and Chief Executive, National Renewable Energy Laboratory
Dr. Camilla P. Benbow*	Patricia and Rodes Hart Dean of Education and Human Development, Peabody College, Vanderbilt University
Dr. Kelvin K. Droegemeier* Task Force Chairman	Associate Vice President for Research, Regents' Professor of Meteorology and Weathernews Chair, University of Oklahoma, Norman
Dr. José-Marie Griffiths	Dean, School of Information and Library Science, University of North Carolina, Chapel Hill
Dr. Douglas Randall†	Professor and Thomas Jefferson Fellow and Director, Interdisciplinary Plant Group, University of Missouri-Columbia
Dr. Jon C. Strauss*	President Emeritus, Harvey Mudd College
Dr. Thomas N. Taylor*	Roy A. Roberts Distinguished Professor, Department of Ecology and Evolutionary Biology, Curator of Paleobotany in the Natural History Museum and Biodiversity Research Center, The University of Kansas, Lawrence
Dr. Arden L. Bement, Jr., <i>ex officio</i>	Director, National Science Foundation
Dr. Craig R. Robinson	Acting Executive Officer, National Science Board

* Task Force Member

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Participants

Dr. Thomas Armstrong	University Liaison and Nanotechnology Program Manager, Technology Investment Office, Department of Community and Economic Development, State of Pennsylvania
Dr. Robert Berdahl	President, Association of American Universities
Dr. Claude Canizares	Vice President for Research & Associate Provost, Massachusetts Institute of Technology
Dr. Donna Dean	Senior Science Advisor, Washington Office, Association of Independent Research Institutes
Dr. Marc Donohue	Professor, Chemical and Biomolecular Engineering, and Vice Dean for Research, Whiting School of Engineering, Johns Hopkins University
Ms. Jean Feldman	Head, Policy Office, Division of Institution & Award Support, Office of Budget, Finance, and Award Management, National Science Foundation
Mr. Howard Gobstein	Vice President, Research and Science Policy, National Association of State Universities and Land-Grant Colleges
Dr. Paul Hill	Vice Chancellor, Division of Science and Research, West Virginia Higher Education Policy Commission
Ms. Cindy Hope	Director of the Office for Sponsored Programs, The University of Alabama
Dr. Anthony (Eamonn) Kelly	Professor, College of Education and Human Development, George Mason University
Dr. Eva Pell	Senior Vice President for Research and Dean of the Graduate School, Pennsylvania State University
Ms. Lynn Preston	Deputy Director, Division of Engineering Education & Centers, Directorate for Engineering, National Science Foundation
Ms. Marguerite Pridgen	Senior Policy Analyst, Office of Management and Budget
Dr. Susan Sedwick	Associate Vice President for Research and Director, Office of Sponsored Projects, The University of Texas at Austin, and Member, Board of Directors, National Council of University Research Administrators
Dr. Mary Ellen Sheridan	Associate Vice President for Research (retired), University of

Chicago, and Member, Advisory Committee for Business
& Operations, National Science Foundation

Mr. Charles Zeigler

Special Assistant, Division of Institution & Award Support,
Office of Budget, Finance, and Award Management,
National Science Foundation

NATIONAL SCIENCE BOARD WORKSHOP

**Committee on Strategy and Budget
Task Force on Cost Sharing**

Roundtable Discussion on Cost Sharing 3
*Implications of Mandatory and Voluntary Cost Sharing for Broadening Participation
in Science and Engineering Research and Education*

**National Science Foundation
4201 Wilson Boulevard
Room 1235
Arlington, Virginia
July 10, 2008**

AGENDA

- 8:00 a.m. **Welcoming Remarks**
- Dr. Kelvin Droegemeier,* Member, National Science Board, and Chair, Task Force on Cost Sharing
- 8:05 a.m. **Motivation, Purpose and Goals**
- Dr. Droegemeier
- 8:15 a.m. **Process and Logistics for Board Workshops**
- Dr. Craig Robinson, Acting Executive Officer, National Science Board
- 8:20 a.m. **Introduction of Participants**
- 8:30 a.m. **Remarks: Brief History of NSF Cost Sharing Policy and Specific Challenges
in Broadening Participation**
- Speaker: Dr. Droegemeier
- 9:00 a.m. **Discussion Session 1: Mandatory Cost Sharing and Institutional
Competitiveness in NSF Grant Funding**

In October 2004, the Board approved a revision to NSF cost sharing policy that eliminated NSF program-specific mandatory cost sharing requirements. The Board's policy was motivated in part by concerns that the inability of some institutions to provide cost sharing inhibited or eliminated their ability to compete for NSF funding. The 2004 policy effectively eliminated ability to provide cost sharing as an eligibility factor in institutional competitiveness in these NSF funding opportunities.

* Task Force Member

1. How have previous mandatory cost sharing requirements impacted the participation of smaller and traditionally underrepresented institutions in NSF funding opportunities?
2. Has the ability of smaller and traditionally underrepresented institutions to participate competitively in NSF funding opportunities changed since the 2004 cost sharing policy was implemented? If so, in what ways?

Discussion Moderators: Dr. Richard Thompson,* Dr. Jerry Odom

10:00 a.m. **Break**

10:15 a.m. **Discussion Session 2: Voluntary Cost Sharing and Institutional Competitiveness in NSF Grant Funding**

Concerns raised about the relative competitiveness of different types of institutions in NSF funding opportunities in terms of offering voluntary cost sharing remain unresolved. General NSF practice is for program officers to not consider any offers of voluntary cost sharing during the merit review process. However, institutional resources offered in a proposal as voluntary cost sharing may be apparent to reviewers during the merit review process. Such offers may be articulated formally in the proposal narrative, in letters of support, or in the budget (e.g., faculty claiming zero salary for time contributed to the project).

1. To what extent is voluntary cost sharing necessary for a proposal or institution to be competitive in NSF funding opportunities?
2. To what extent does the type or nature of an institution impact its ability to provide voluntary cost sharing?
3. In what ways could voluntary cost sharing be used to stimulate participation and enhance competitiveness in NSF funding opportunities without providing an unfair advantage to any particular type of institution?

Discussion Moderators: Dr. Droegemeier, Dr. Orlando Taylor

11:15 a.m. **Discussion Session 3: Cost Sharing and Institutional Strategic Investment**

Cost sharing has been rationalized by the idea that it brings additional financial resources to the research enterprise; serves as a means for leveraging institutional and state and local government support; provides incentives for strategic planning and buy-in by grantee institutions; promotes sustainability for large, multi-year activities initiated with Federal funding; and provides a means for creating meaningful partnerships with industry. Cost sharing has been required in certain NSF programs that achieve such objectives as developing research infrastructure that can be used beyond the scope or life of the specific NSF award, or generating revenue for the grantee institution. An institution's decision to participate had to be made in the context of long-term strategic priorities, institutional goals, and a desire to achieve sustainability beyond NSF funding.

1. How does cost sharing, both mandatory and voluntary, impact institutional strategic planning?
2. To what extent can cost sharing requirements be used as a means of assisting smaller and traditionally underrepresented institutions in becoming and remaining competitive for external research funding?

* Task Force Member

3. Does cost sharing promote institutional sustainability of NSF-funded programs once NSF funding ends? Does it promote the involvement of industry in ways that otherwise would not be possible or likely?

Discussion Moderators: Dr. Thomas Taylor,* Ms. Cindy Hope

12:15 p.m. **Lunch (Room 1235, provided for Roundtable 2 and Roundtable 3 participants)**

Presentation: Cost Sharing as a Tool for Stimulating Participation and Competitiveness in NSF Grant Funding

Shirley Malcom, Head, Directorate for Education and Human Resources, American Association for the Advancement of Science

1:30 p.m. **Discussion Session 4: Options for Ensuring Institutional Equity in NSF Grant Funding**

No NSF program solicitation issued since the Board's 2004 cost sharing policy revision was implemented has required mandatory cost sharing (except the FY 2008 solicitation for the Major Research Instrumentation [MRI] program, for which mandatory cost sharing was specifically reinstated by the America COMPETES Act). In FY 2009, NSF will reinstate mandatory cost sharing for the EPSCoR, ERC, and I/UCRC programs, as recommended in the Board's February 2008 report to Congress on NSF cost sharing policies. Mandatory cost sharing in such programs and voluntary cost sharing in all NSF programs remain factors that may impact relative institutional competitiveness and equity in all NSF funding opportunities.

1. What policies might be enacted by NSF to ensure institutional equity in NSF funding opportunities that require mandatory cost sharing?
2. What policies might be enacted by NSF to ensure institutional equity in all NSF funding opportunities?
3. What policies might institutions employ to more effectively meet both mandatory and voluntary cost sharing needs?

Discussion Moderators: Dr. Daniel Hastings,* Dr. Wesley Harris

2:30 p.m. **Break**

2:45 p.m. **Plenary Session for Roundtable 3**

Discussion Moderators: Dr. Droegemeier, Dr. Jon Strauss*

3:45 p.m. **Combined Plenary Session for Roundtables 2 and 3**

Discussion Moderator: Dr. Droegemeier

4:45 p.m. **Summary and Next Steps**

5:00 p.m. **Adjourn**

* Task Force Member

**National Science Board
Task Force on Cost Sharing**

**Roundtable Discussion 3
Implications of Mandatory and Voluntary Cost Sharing for Broadening Participation
in Science and Engineering Research and Education
July 10, 2008**

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Dr. José-Marie Griffiths	Dean, School of Information and Library Science, University of North Carolina, Chapel Hill
Dr. Daniel Hastings*†	Dean for Undergraduate Education and Professor, Aeronautics & Astronautics and Engineering Systems, Massachusetts Institute of Technology
Dr. Douglas Randall†	Professor and Thomas Jefferson Fellow and Director, Interdisciplinary Plant Group, University of Missouri-Columbia
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Dr. Craig R. Robinson	Acting Executive Officer, National Science Board

* Task Force Member

† Consultant

Participants

Ms. Carrie Billy	Deputy Director, American Indian Higher Education Consortium
Mr. Ronald Blakely	Deputy Director, White House Initiative on Historically Black Colleges and Universities (HBCU)
Ms. Elaine Craft	Director, South Carolina Advanced Technological Education Center of Excellence; President/CEO, SCATE Inc., Florence-Darlington Technical College; and Member, Advisory Committee for Business & Operations, National Science Foundation
Dr. Janice Cuny	CISE Program Director, Broadening Participation in Computing, National Science Foundation
Mr. William Rafael Gil	Executive Director, National Internship Program, Hispanic Association of Colleges & Universities
Dr. Wesley Harris	Chair, Committee on Equal Opportunities in Science and Engineering, National Science Foundation, and Associate Provost, Massachusetts Institute of Technology
Dr. Beverly Karplus Hartline	Member, Committee on Equal Opportunities in Science and Engineering, National Science Foundation, and Dean of Mathematics, Natural Sciences, and Technology, Delaware State University
Ms. Cindy Hope	Director for Research Administration, The University of Alabama
Dr. Shaik Jeelani	Director, Center for Advanced Materials and Vice President, Research and Sponsored Programs, Tuskegee University
Dr. Shirley Malcom	Head, Directorate for Education and Human Resources Programs, American Association for the Advancement of Science
Dr. Jerry Odom	Executive Director, University of South Carolina Foundations, University of South Carolina
Dr. Yuri Rojas	Director, Research and Development Center, University of Puerto Rico at Mayaguez
Dr. Orlando Taylor	Vice Provost for Research, Dean of the Graduate School, Howard University
Ms. Cindy White	Director, Office of Research, Belmont University



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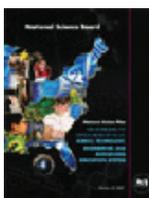
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