

Government-University-Industry Research Roundtable

National Academy of Sciences/National Academy of Engineering/Institute of Medicine
COUNCIL MEETING AGENDA, October 23-24, 2001
National Academies Building, Washington, D.C.

Envisioning a 21st Century Science and Engineering Workforce: Tasks for Universities, Industry, and Government

OCTOBER 23, 2001, NATIONAL ACADEMIES BUILDING

3:15 PM Board Room

**Panel 1: Federal Agencies and the Projected S&E Workforce Shortfall
[Session NOT Open to the Public]**

Moderator: Peter Henderson, Director, NRC Board on Higher Education and Workforce

Representatives of federal agencies will discuss their expected workforce needs, the concerns of their Departments in meeting these needs, and possible responses to the projected S&E workforce shortfall.

Some questions to be addressed:

- What are the agencies' current S&E needs?
- How will these needs change by the end of this decade?
- What actions or responses do S&E supply/demand projections imply?
- What is the Department doing to mitigate risks associated with the various projections?

5:30 PM Cocktail Reception: Rotunda

6:00 PM Dinner: Member's Room

Panel 2: The Science and Engineering Workforce: National Imperatives and Implications for Future Growth [Session Open to the Public]

Gen. Thomas Moorman Jr., USAF Ret., Vice President, Booz-Allen & Hamilton Inc
John Marburger, Science Advisor-Designate to the President

Open Discussion

8:30 PM Adjourn

OCTOBER 24, 2001, LECTURE ROOM, NATIONAL ACADEMIES BUILDING

7:30 AM Continental Breakfast [Session Open to the Public]

8:00-8:10 Opening Remarks, Marye Anne Fox, Chancellor, North Carolina State University

8:10-8:20 Overview of sessions and anticipated outcomes, Shirley Ann Jackson, President, RPI

Panel 3: Current S&E Workforce Projections: Status and Trends

8:20 Eleanor Babco, Executive Director, Commission on Professionals in Science and Technology
8:40 Shelley Hymes, Director, Office of the 21st Century Workforce Initiative, Department of Labor
9:00 Michael Finn, Economist, Oak Ridge Institute for Science and Education

Every sector faces the challenge of recruiting more talented students to S&E, including underrepresented minorities, and matching the training of these students with workforce demands. A new concern is retaining foreign students and workers. This panel will discuss efforts to anticipate workforce needs, difficulties in doing so, and elements of successful intervention in workforce trends.

Some questions to be addressed:

- What are the projections for future S&E workforce needs and production? What are the projections broken out by field and education level?
- Is it possible to make meaningful predictions? How do we make effective policy choices in the absence of reliable projections?
- To what extent does reliance on foreign students/workers dull market incentives for U.S. citizens to pursue S&E careers?

9:20 Discussion

9:30-9:45 Break

Panel 4: What are the implications of a workforce shortfall?

9:45 Robert Spitzer, Vice President of Technical Affiliations, Boeing Phantom Works
10:05 Freeman Hrabowski, President, University of Maryland at Baltimore County
10:25 Alan Merten, President, George Mason University

This panel will discuss the possible consequences of workforce shortfalls and ways to prevent them. An issue underlying this discussion is the shift in workforce training from industry to government. As industry reduces its investment in long-term research and S&E training, the role of workforce preparation falls more heavily on government and its support of academia.

Some questions to be addressed:

- For industry, what are your workforce projections and needs? What would be the consequences of a workforce shortfall? How can industry work with universities to meet workforce needs?
- For universities, what can you do to increase the participation of minorities in S&E? How can you increase the participation of students in general? How can you produce “pockets of excellence”?

10:45 Discussion

11:00 Break

Panel 5: The Way Ahead: Panel Discussion

11:15 Marye Anne Fox, NC State, Bill Joyce, Hercules Incorporated, Shirley Jackson, RPI

Moderator: Spence (Sam) Armstrong, NASA HQ

11:45 **Discussion of Future Roundtable Priorities [Session NOT Open to the Public]**

Marye Anne Fox/Bill Joyce

12:15 Adjourn to Lunch