

10/12/06

PROVISIONAL AGENDA

National Science Board Workshop

Moving Forward to Improve Engineering Education

Georgia Institute of Technology

Monday, November 6, 2006

7:00 p.m. Reception and Registration

Tuesday, November 7, 2006

8:30 a.m. **Welcome**

Steven C. Beering, Chairman, National Science Board

G. Wayne Clough, President, Georgia Institute of Technology

8:45 a.m. **Overview of the Workshop and Self-Introductions of Participants**

Michael P. Crosby, Executive Officer, National Science Board

9:00 a.m. **Summary of the October 20, 2006 National Science Board sponsored workshop, *Engineering Workforce Issues and Engineering Education: What are the Linkages?***

Daniel E. Hastings, National Science Board

9:15 a.m. **Review of Previous and Current National Science Foundation (NSF) Programs and Activities in Engineering Education**

Richard O. Buckius, National Science Foundation

9:30 a.m. **Panel 1: Retention Rates in Engineering Undergraduate Programs**

Moderator: Dr. Clough, National Science Board

What is the role of the Foundation in understanding the issues associated with retention of students who enter universities to study engineering and in developing approaches to address these challenges?

Ilesanmi Adesida
University of Illinois at Urbana-Champaign

Esin Gulari
Clemson University

Kristina M. Johnson
Duke University

10:00 a.m. Group Discussion among Workshop Participants

10:30 a.m. Questions and Comments from the Audience

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10:45 a.m. **Break**

11:00 a.m. **Panel 2: The Educational Experience of Engineering Students**

Moderator: Dr. Hastings, National Science Board

What is the best way to create an educational experience for an engineering student that will allow for more well rounded graduates who have skill sets that will allow them to compete in a "flat world" economy? How may co-op and internship programs, student professional societies, volunteer activities, student government, and/or study abroad programs contribute to the educational experience of engineering students? How may larger university environments best leverage opportunities for engineering students? Is there a unique role for NSF in supporting the efforts of colleges and universities to enhance the educational experience of engineering students? How can larger university environments be used to leverage opportunities for engineering students?

Leah H. Jamieson
Purdue University

Richard Miller
Olin College of Engineering

David N. Wormley
The Pennsylvania State University

11:30 a.m. Group Discussion among Workshop Participants

12:00 noon Questions and Comments from the Audience

12:15 p.m. **Lunch**

Speaker: Bryan Moss, President, Gulfstream Aerospace

1:30 p.m. **Panel 3: Engineering Perceptions**

Moderator: Louis J. Lanzerotti, National Science Board

What can NSF contribute to an understanding of the societal trends and industrial practices that may discourage students from pursuing engineering?

Don Giddens
Georgia Tech

Eric J. Sheppard
Hampton University

Belle Wei
San Jose State University

2:00 p.m. Group Discussion among Workshop Participants

2:30 p.m. Questions and Comments from the Audience

2:45 p.m. **Break**

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3:00 p.m. **Breakout Sessions**

Session Chairs: Drs. Clough, Hastings, and Lanzerotti

How can NSF assist in moving the agenda forward on engineering education reform and address the issues of retention rates, educational experience, and engineering perceptions?

4:30 p.m. **Reports From Breakout Groups**

4:45 p.m. **Roundtable Discussion among Workshop Participants**

Moderator: Dr. Hastings

5:15 p.m. **Summary of Major Findings and Conclusions**