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# INCREASING DIVERSITY IN STEM RESEARCH AND EDUCATION

Panelist: Dr. Ted A. Conway

Professor & Associate Dean for Research

Virginia Commonwealth University

National EPSCoR Meeting  
Waikoloa Beach Marriot  
Waikoloa, HI  
November 6 - 9, 2007

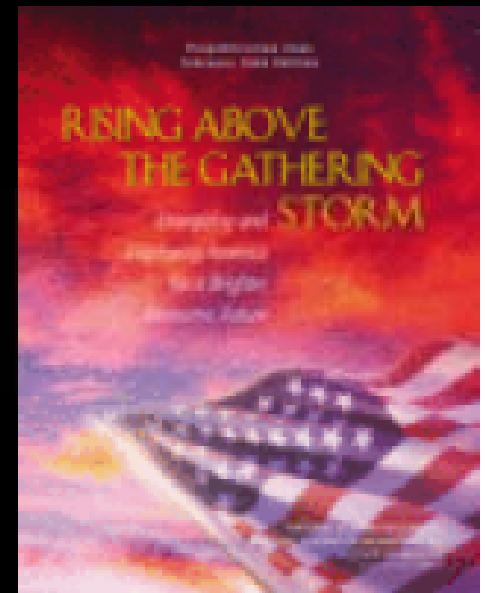


# Rising Above the Gathering Storm

The vitality of the United States "... is derived in large part from the productivity of well-trained people and the steady stream of scientific and technical innovations they produce. Without high-quality, knowledge-intensive jobs and the innovative enterprises that lead to discovery and new technology, our economy will suffer and our people will face a lower standard of living."

2006, National Academy of Sciences,  
National Academy of Engineering and the  
Institute of Medicine

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## **Persons with Disabilities (PWDs) represent:**

- \* 19.6 percent of the U.S. population
- \* Nearly 60 Million Americans
- \* 65% of PWD are unemployed (Since 1986)

McNeil 1993; NSF 1996, 2000  
Louis Harris Poll, 2004

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# What traits are necessary for success in STEM fields?

*Problem Solving Skills*

*Creativity*


*Persistence*

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# Revisit Question:

Why fund STEM education programs for persons with disabilities?



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## Answer:

Persons with disabilities inherently possess fundamental traits necessary to be successful in STEM fields.

*Problem Solving Skills*

*Creativity*

*Persistence*

and

*We bring our own **unique life experiences** to the problem solving table which **promotes innovation.***



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**Why should we be interested in  
Broadening Participation?**

**TALENT**

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# Paradigm Shift

“If education is inaccessible to any person with a disability then it is poorly design”

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# National Programs in STEM for PwD

- \* NSF – Research in Disabilities Education
- \* DOEd - National Institute on Disability & Rehabilitation Research (NIDRR)
- \* AAAS – Project on Science, Technology & Disability



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# National Science Foundation – Research in Disabilities Education Regional Alliances (14 States)



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# A RESOURCE FOR TEACHERS AND TEACHER EDUCATORS

Incorporating Universal Design in every aspect of Education

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# The Role of Diversity

- If we don't have a diverse workforce, including persons with disabilities, we limit the set of life experiences that an engineering team will have and, consequently, we limit the creativity that could be brought to bear."
  - William Wulf, President, National Academy of Engineering
- Diverse participation encourages creativity, stability and resilience. Enlisting a broad range of minds and backgrounds ... yields products and services that benefit a broad range of consumers. Broad participation benefits business too.
  - National Center for Women in Information Technology



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# THANK YOU!

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