

Archived Information

Public Awareness

On March 13, 2003, stakeholders in the mathematics education community participating in the Secretary's Summit on Mathematics were charged with the task of identifying the parameters for a broad-based public engagement campaign to focus on the need to strengthen mathematics and science education in K-12 schools.

To allow for small group discussions, the large number of meeting participants were divided into two breakout groups. The discussions centered on:

1. What are the key issues in mathematics education?
2. What are the barriers to addressing the issue(s)?
3. What would be the ideal outcome to the issue(s)?
4. What are the opportunities for coordination to address the issue(s)?
5. What strategies can be used to address the issue(s)?
6. What resources are available to address the issue(s)?

Following a day of lively discussion and debate among mathematicians, scientists, educators, federal agency officials, researchers, business leaders, and others, a number of key issues and ideas emerged about a variety of ways to increase public awareness of the importance of mathematics education. The discussions and concerns identified in the two breakout groups (link here to individual group papers) were summarized and prioritized by the Summit steering committee. These top priorities and action items clearly emerged from the working sessions:

- 1. Why Science, Technology, Engineering, and Mathematics (STEM) Matters:** The nation's economy depends on workers literate in science, technology, engineering, and mathematics principles. A public awareness campaign focusing on the importance of math education must also take into consideration the related disciplines of science, engineering, and technology. As such, the question of Why Math Matters was changed to Why STEM Matters. A public awareness campaign must help the public recognize and answer this question.
- 2. Message:** A consistent, constant message must be developed that can be used universally to help the public understand Why STEM Matters. Such a message must be broad or an umbrella statement providing individuals, organizations, businesses, and government agencies the ability to add to the message and target their individual constituencies.
- 3. Public engagement strategies:** Different strategies must be developed to reach a number of different audiences/populations. It is assumed that by having the individuals, organizations, businesses, and government agencies target their individual constituencies the broad range of audiences will be reached.

Next Steps: These key concepts will provide participants at the next Summit meeting on May 6 with the foundation to further expand upon the guiding principles necessary for a broad-based public engagement campaign focused on **Why STEM Matters**. Further

collaboration among mathematicians, scientists, educators and others will be needed to gather input and provide guidance to these questions:

1. What clear, consistent message can be developed to convey the importance of STEM to a number of different audiences?
2. Who are the audiences?
3. What specific public engagement strategies can be developed to address these diverse audiences?
4. What key groups of K-12 STEM stakeholders can be counted on to assist in the public-engagement program and help “deliver the message”?

Conducting a broad-based public engagement campaign that draws attention to the need for better mathematics and science education in our nation's schools must consider the following:

1. Parents must know what children should study to prepare for success in a world requiring a greater knowledge of science and mathematics than their parents needed.
2. Students must understand the benefits of careers in mathematics and science and the need to prepare throughout school for them.
3. The public must realize that advances in technology and productivity, necessary for the U.S. to remain competitive in the global economy, depend on all students learning more mathematics and science than is currently required, and also on increasing the number of students who extend their mathematical knowledge beyond algebra so they may proceed to more advanced scientific and technical subjects.