

STEM Education Coalition



April 15, 2008

The Honorable Barbara Mikulski
Chairman
Subcommittee on Commerce, Justice,
Science and Related Agencies
Committee on Appropriations
United States Senate
Washington, D.C. 20510

The Honorable Richard Shelby
Ranking Member
Subcommittee on Commerce, Justice,
Science and Related Agencies
Committee on Appropriations
United States Senate
Washington, D.C. 20510

Dear Chairman Mikulski and Ranking Member Shelby:

On behalf of the Science, Technology, Engineering, and Mathematic (STEM) Education Coalition, we are writing in support of the Administration's request of \$6.85 billion in fiscal year 2009 for the National Science Foundation (NSF). However, we are concerned that, while the Administration's budget request provides substantial resources for the NSF, it also falls short in providing the funding authorized by the broadly supported and overwhelmingly bi-partisan *America COMPETES Act* for NSF's Education and Human Resources (EHR) Directorate and its efforts to foster improvements in K-12, undergraduate, graduate, continuing education, vocational, and informal STEM education.

Last year, Congress showed strong bipartisan support for increased investment to strengthen the U.S. STEM education pipeline and basic research in the physical sciences by enacting the *America COMPETES Act*. While the Administration's fiscal year 2009 budget request of \$790.4 million for the EHR Directorate would provide a meaningful investment in STEM education, it falls far short of \$995 million authorized for NSF's EHR directorate under the *America COMPETES Act*. Accordingly, we strongly urge you to provide the highest possible funding for NSF's EHR Directorate in fiscal year 2009, including increased investments in the Math and Science Partnerships and the Robert Noyce Scholarship Program.

Our Coalition also supports robust federal investments in NSF's basic scientific research programs that will inspire current and future generations of young people to pursue careers in STEM fields and bolster our country's capacity for innovation and global economic competitiveness. However, it is clear that if we want our nation to remain competitive in the global economy and continue to be a world leader in innovation, we must renew our commitment to NSF's educational mission.

NSF has long-served as a catalyst for STEM education reform. NSF's EHR Directorate seeks to advance discovery and innovation at the frontiers of STEM learning and teaching; support the conceptualization, design, testing, assessment, study and evaluation of highly innovative models and approaches to learning in formal and informal settings; advance equity and participation for all by building and strengthening participation in the scientific-technical enterprise; foster linkages between STEM education research and practice; and serve as the intellectual nexus that unites education research and evaluation activities across the Foundation and with other federal agencies.

Thanks in part to NSF's innovative Math and Science Partnership program, student proficiency in math and science in many schools is increasing. A recent NSF analysis of schools participating in the MSP program shows significant improvements in students' mathematics and science proficiency. African-American, Hispanic, and white students showed significant improvements in elementary level mathematics, as did students designated as special-education or as limited English-proficiency students. One large group of high school students who participated in the MSP program showed a 17 percent improvement in math proficiency in just two years. Authorized at \$111 million in fiscal year 2009 by the *America COMPETES Act*, the Administration's budget request included only \$51 million. We urge you to increase the federal investment in this vital and broadly supported program.

The preparation of high quality teachers is central to improving student performance in the STEM fields. Within NSF, one such teacher preparation program is the Noyce Scholarship Program which was expanded in the *America COMPETES Act* to encourage college STEM majors to pursue teaching careers in high-need schools. Authorized at \$115 million in fiscal year 2009 by the *America COMPETES Act*, the Administration's budget request included only \$11.6 million – a truly disturbing shortfall. We urge you to increase the federal investment in this well regarded STEM initiative. We also encourage your subcommittee to work with colleagues on the L/HHS/E appropriations subcommittee to ensure an increased investment in FY 2009 in all federal education programs that contribute to the preparation and professional development of STEM teachers.

Sustained and robust investments in STEM education will be critical to the success of U.S. global competitiveness and continued economic growth. We urge you to support strong investments in the NSF's Education and Human Resources (EHR) Directorate, the Math and Science Partnership program, and the Robert Noyce Scholarship program.

The STEM Education Coalition is composed of a diverse range of organizations representing all sectors of the technological workforce – from knowledge workers, to educators and education researchers, to scientists, engineers, and technicians. Our Coalition works to raise awareness in Congress and throughout the Executive Branch about the critical role that STEM education – both formal and informal – plays in enabling the U.S. to remain the economic and technological leader of the global marketplace of the 21st century.

If we can provide you any additional information on STEM education, please do not hesitate to contact James Brown at 202-872-6229 or Jodi Peterson at 703-312-9214.

Sincerely,

*Aerospace Industries Association
AIAA
Allegheny-Singer Research Institute
Altshuller Institute for TRIZ Studies Inc.
American Association of Colleges of Teacher Education
American Association of Physics Teachers
American Association of University Women (AAUW)
American Chemical Society
American Council of Engineering Companies
American Geological Institute
American Physical Society*

www.stemedcoalition.org

American Society of Civil Engineers
American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
ASME Center for Public Awareness
Association for Computing Machinery
Association for Women in Science
Association of Science-Technology Centers
ASTRA, Alliance for Science and Technology Research in America
Baltimore Washington Corridor Chamber of Commerce
Business-Higher Education Forum
California Healthcare Institute
Center for Excellence in Education
Council on Undergraduate Research
Education Development Center, Inc.
Elementary Science Coalition
Girls Inc.
Hands On Science Partnership
IEEE-USA
Institute of Food Technologists
International Technology Education Association
JETS
Maine Mathematics and Science Alliance
Maryland Science Center
Math for America
Museum of Science, Boston
National Association of Manufacturers
National Center for Optics and Photonics Education (OP-TEC)
National Center for Technological Literacy
National Council of Teachers of Mathematics
National Defense Industrial Association
National Science Teachers Association
National Society of Professional Engineers
New Mexico State University
Project Exploration
Project Lead the Way
Public Broadcasting Service
SAE International
Science Companion
Society of Hispanic Professional Engineers (SHPE)
Society of Women Engineers
SPIE – The International Society for Optics and Photonics
STEM Education Society
Triangle Coalition
University of Kansas
Vernier Software & Technology

STEM Education Coalition



April 15, 2008

The Honorable Alan B. Mollohan
Chairman
Subcommittee on Commerce, Justice and
Science and Related Agencies
House Committee on Appropriations
U.S. Capitol, H-310
Washington, DC 20515

The Honorable Rodney P. Frelinghuysen
Ranking Member
Subcommittee on Commerce, Justice and
Science and Related Agencies
House Committee on Appropriations
U.S. Capitol, H-310
Washington, DC 20515

Dear Chairman Mollohan and Ranking Member Frelinghuysen:

On behalf of the Science, Technology, Engineering, and Mathematic (STEM) Education Coalition, we are writing in support of the Administration's request of \$6.85 billion in fiscal year 2009 for the National Science Foundation (NSF). However, we are concerned that, while the Administration's budget request provides substantial resources for the NSF, it also falls short in providing the funding authorized by the broadly supported and overwhelmingly bi-partisan *America COMPETES Act* for NSF's Education and Human Resources (EHR) Directorate and its efforts to foster improvements in K-12, undergraduate, graduate, continuing education, vocational, and informal STEM education.

Last year, Congress showed strong bipartisan support for increased investment to strengthen the U.S. STEM education pipeline and basic research in the physical sciences by enacting the *America COMPETES Act*. While the Administration's fiscal year 2009 budget request of \$790.4 million for the EHR Directorate would provide a meaningful investment in STEM education, it falls far short of \$995 million authorized for NSF's EHR directorate under the *America COMPETES Act*. Accordingly, we strongly urge you to provide the highest possible funding for NSF's EHR Directorate in fiscal year 2009, including increased investments in the Math and Science Partnerships and the Robert Noyce Scholarship Program.

Our Coalition also supports robust federal investments in NSF's basic scientific research programs that will inspire current and future generations of young people to pursue careers in STEM fields and bolster our country's capacity for innovation and global economic competitiveness. However, it is clear that if we want our nation to remain competitive in the global economy and continue to be a world leader in innovation, we must renew our commitment to NSF's educational mission.

NSF has long-served as a catalyst for STEM education reform. NSF's EHR Directorate seeks to advance discovery and innovation at the frontiers of STEM learning and teaching; support the conceptualization, design, testing, assessment, study and evaluation of highly innovative models and approaches to learning in formal and informal settings; advance equity and participation for all by building and strengthening participation in the scientific-technical enterprise; foster linkages between STEM education research and practice; and serve as the intellectual nexus that unites education research and evaluation activities across the Foundation and with other federal agencies.

Thanks in part to NSF's innovative Math and Science Partnership program, student proficiency in math and science in many schools is increasing. A recent NSF analysis of schools participating in the MSP program shows significant improvements in students' mathematics and science proficiency. African-American, Hispanic, and white students showed significant improvements in elementary level mathematics, as did students designated as special-education or as limited English-proficiency students. One large group of high school students who participated in the MSP program showed a 17 percent improvement in math proficiency in just two years. Authorized at \$111 million in fiscal year 2009 by the *America COMPETES Act*, the Administration's budget request included only \$51 million. We urge you to increase the federal investment in this vital and broadly supported program.

The preparation of high quality teachers is central to improving student performance in the STEM fields. Within NSF, one such teacher preparation program is the Noyce Scholarship Program which was expanded in the *America COMPETES Act* to encourage college STEM majors to pursue teaching careers in high-need schools. Authorized at \$115 million in fiscal year 2009 by the *America COMPETES Act*, the Administration's budget request included only \$11.6 million – a truly disturbing shortfall. We urge you to increase the federal investment in this well regarded STEM initiative. We also encourage your subcommittee to work with colleagues on the L/HHS/E appropriations subcommittee to ensure an increased investment in FY 2009 in all federal education programs that contribute to the preparation and professional development of STEM teachers.

Sustained and robust investments in STEM education will be critical to the success of U.S. global competitiveness and continued economic growth. We urge you to support strong investments in the NSF's Education and Human Resources (EHR) Directorate, the Math and Science Partnership program, and the Robert Noyce Scholarship program.

The STEM Education Coalition is composed of a diverse range of organizations representing all sectors of the technological workforce – from knowledge workers, to educators and education researchers, to scientists, engineers, and technicians. Our Coalition works to raise awareness in Congress and throughout the Executive Branch about the critical role that STEM education – both formal and informal – plays in enabling the U.S. to remain the economic and technological leader of the global marketplace of the 21st century.

If we can provide you any additional information on STEM education, please do not hesitate to contact James Brown at 202-872-6229 or Jodi Peterson at 703-312-9214.

Sincerely,

*Aerospace Industries Association
AIAA
Allegheny-Singer Research Institute
Altshuller Institute for TRIZ Studies Inc.
American Association of Colleges of Teacher Education
American Association of Colleges of Teacher Education
American Association of Physics Teachers
American Association of University Women (AAUW)
American Chemical Society
American Council of Engineering Companies*

www.stemedcoalition.org

American Geological Institute
American Physical Society
American Society of Civil Engineers
American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
ASME Center for Public Awareness
Association for Computing Machinery
Association for Women in Science
Association of Science-Technology Centers
ASTRA, Alliance for Science and Technology Research in America
Baltimore Washington Corridor Chamber of Commerce
Business-Higher Education Forum
California Healthcare Institute
Center for Excellence in Education
Council on Undergraduate Research
Education Development Center, Inc.
Elementary Science Coalition
Girls Inc.
Hands On Science Partnership
IEEE-USA
Institute of Food Technologists
International Technology Education Association
JETS
Maine Mathematics and Science Alliance
Maryland Science Center
Math for America
Museum of Science, Boston
National Association of Manufacturers
National Center for Optics and Photonics Education (OP-TEC)
National Center for Technological Literacy
National Council of Teachers of Mathematics
National Defense Industrial Association
National Science Teachers Association
National Society of Professional Engineers
New Mexico State University
Project Exploration
Project Lead the Way
Public Broadcasting Service
SAE International
Science Companion
Society of Hispanic Professional Engineers (SHPE)
Society of Women Engineers
SPIE – The International Society for Optics and Photonics
STEM Education Society
Triangle Coalition
University of Kansas
Vernier Software & Technology