

# Talking Points

## **Fully Fund the Math and Science Partnership Program at the U.S. Department of Education.**

The Math and Science Partnership (MSP) program created in Title II part B of No Child Left Behind have been authorized at \$450 million and have never been fully funded. These programs are one of the most successful programs in getting money directly to the states to effectively fund innovative efforts targeting the improvement of American students in math and science. Given the critical roles these two subjects, along with technology and engineering, play in maintaining U.S. competitiveness in the world markets it is essential that the MSP program be adequately funded to provide states the maximum capability to augment student achievement.

These programs have been flat funded for the past three years at a level less than half of their authorized amounts. While Congress faces numerous pressures and budgetary constraints, the MSP program is one area that has great potential to reap extreme benefits as we move into the 21<sup>st</sup> century and America takes on the mounting competition in other parts of the world it will become increasingly important that U.S. students are well trained in the skills necessary to become the innovators, to remain on the leading edge of economic development and to produce the needed advances to create and sustain jobs in the U.S.

With the increasing focus on Math and Science including the upcoming requirement for testing in science as part of No Child Left Behind there is a great need within the states to develop programs that can help students succeed. The Math and Science Partnerships have been just such a program and have been very successful at the state level in providing the necessary funds to allow local education agencies working in conjunction with institutions of higher education and local consortia to develop and implement innovative approaches in both math and science. To sustain those programs, and to expand the reach and influence of the successful models, Congress must provide full funding.

## **Dedicate and set aside funding within Title II part A for Teacher Professional Development in Core subject areas.**

Shortages of highly qualified math, science and technology teachers have been reported across the country. With the increased attention these key subjects face as America moves toward a more competitive marketplace it only makes sense for Congress to invest in teachers and the teaching profession at all levels. Setting aside funds within the existing Title II part B of No Child Left Behind will provide the resources for state and local education agencies to significantly improve both the content and pedagogical knowledge of teachers as they strive toward student proficiency in STEM fields.

We ask that Congress consider setting 50% of the Title II part B allocation in the Federal Budget to be used for programs that support teacher preparation in core subjects, ongoing professional development for current teaching staff and mentoring for newly certified teachers, in order to fully prepare and encourage teaching excellence in STEM education.

**▲ Amend No Child Left Behind to include science in the calculations of AYP or Adequate Yearly Progress and allow states greater flexibility in determining what constitutes progress given the nature of science instruction.**

The current No Child Left Behind Act requires the testing of Science to begin in the 2007-08 academic year. While several states and local school districts have opted to include student performance in science as part of their calculation of school performance, it is not required to be included under the Federal legislation.

Congress should amend the No Child Left Behind Act to include science in the calculation of AYP or Adequate Yearly Progress. In doing so, however, Congress should recognize the nature of science and the way it is taught and allow states greater flexibility in determining how to assess student performance, skill, and knowledge from year to year.

Science should be taught in a hands-on, inquiry based approach. The most successful methods of testing this might include some form of performance based testing which by its nature would be more complicated and difficult to score but would allow proper evaluation of student performance in science. Current requirements tend to encourage simple answer or multiple choice testing which would change the direction of teaching in this key subject. Allowing for greater flexibility will encourage states to develop a more performance based models that are more in keeping with the way in which students should learn science.

**▲ Increase funding for education programs at the National Science Foundation**

In recent years there have been increases in the National Science Foundation (NSF) budget targeted at expansion of basic research, particularly in the sciences. During this same period the funding for education and educational research at NSF has been steadily declining. Congress should act to increase funding for the Education and Human Resources Directorate (EHR) at NSF.

NSF's education research is the basis for the development of many programs designed to help promote rigor in STEM education. Programs within the EHR directorate at NSF can address critical issues confronting the teaching of science, math and technology including the development of materials to aid in the recruitment and retention of teachers with strong content and pedagogical knowledge in science and math. NSF is uniquely positioned to fund the development, testing and implementation of K-12 curriculum and assessment models that align with appropriate standards for STEM education. The peer reviewed Math Science Partnerships at NSF have produced exceptional programs which can and should be disseminated through the companion program funded at the U.S. Department of Education.

There have been calls to double the budget for the National Science Foundation over the next ten years. Congress should require that as the budget at NSF increases, the funding in the Education and Human Resources directorate will increase at the same rate to a point at which it too will be doubled over the next ten years.

# Doing what's Best for Math, Science, and Technology Education

## *Meeting the Needs of Educators in the 2008 Federal Budget*

As Congress deliberates the Federal Budget for Fiscal Year 2008 there are several key areas that are critical for our continued investment in educational excellence and national competitiveness in the global marketplace. Innovation will continue to be the driver of American economic growth and innovation requires a strong commitment to science, technology, engineering and mathematics, STEM, education.

In addition to the normal course of events inherent in the budget process, this year is also key because of the reauthorization of No Child Left Behind. Congress has an opportunity to demonstrate leadership in STEM education by making science, technology, engineering and mathematics an integral part of the reauthorized No Child Left Behind Act recognizing the importance these key fields to America's commitment to the future.

- ▲ Congress should increase funding for Mathematics and Science Partnerships at the U.S. Department of Education. This program supports state education offices as they seek to improve student performance in science and mathematics. Funds are distributed directly to the states allowing them to target the areas and subjects of greatest need and to put programs in place that provide the greatest impact. The Math and Science Partnership program has not been fully funded and is currently budgeted at less than half of its authorized level. Congress should fully fund this effort at \$450 million and commit the funds needed to make the necessary progress STEM education.
- ▲ Congress should dedicate funding within Title II part A of No Child Left Behind for teacher professional development in core subjects. Congress should require that 50% of the funds available within Title II part A be used to for programs that support teacher preparation in core subjects, provide ongoing professional development for current teachers and to provide mentoring for newly certified teachers. Preference should be given to programs that encourage and support teaching efforts in high need fields.
- ▲ Congress should amend the No Child Left Behind Act to require science be part of the states' calculation of adequate yearly progress or AYP and allow states greater flexibility in determining what constitutes progress given the nature of science instruction. Science should be taught in a hands-on, inquiry based approach. Allowing for greater flexibility will encourage states to develop performance based models that are more in keeping with the way in which students should learn science and would allow proper evaluation of student performance in science.
- ▲ Congress should increase the funding at the National Science Foundation for the Education and Human Resources Directorate. Congress should require that, as the budget at NSF increases, the funding in the Education and Human Resources directorate will increase at the same rate to a point at which it too will be doubled over the next ten years. The peer reviewed programs developed at NSF can and should be disseminated through companion programs at the U.S. Department of Education.