

No Child Left Behind: How Will It Affect Mathematics, Science, and Technology Educators?

On January 8, 2002, President George W. Bush signed into law the No Child Left Behind Act (NCLB), the sweeping new federal education reform law that will affect virtually every aspect of K-12 education. It is important to know how the new law will affect mathematics, science, and technology educators.

First, annual testing for all students in grades 3-8 in mathematics and reading must begin in 2005. By the 2007-2008 school year, all states must administer science assessments to students once in grades 3-5; 6-9; and 10-12.

Second, several new provisions under NCLB will profoundly influence the professional development provided to all teachers. NCLB requires that by the end of the 2005-06 school year, all states must ensure that every core subject classroom teacher is “highly qualified.” To meet this definition, a teacher must be certified or licensed, hold a bachelor’s degree, and have demonstrated competencies in his or her teaching area (as determined by the state).

In fall 2002, the federal government plans to disburse approximately \$2.8 billion in NCLB Title II grants to the states and districts for professional development (and other teacher quality programs) to help states, and teachers, reach the goal of having highly qualified teachers by 2005.

NCLB Title II grants are a combination of the Class Size Reduction program and Eisenhower Professional Development State Grants (previously a major source for mathematics and science teacher training funds). District administrators can now opt to use Title II grant funds for a variety of purposes, including professional development, recruitment, and hiring, as long as the activities meet the law’s requirements. Although the set aside provision for science and mathematics programs under the Eisenhower grants is no longer available, Congress fully intended that Title II grant funds continue to be used for mathematics and science education. When determining how these funds should be used, administrators must keep in mind that ALL teachers must be highly qualified by 2005.

Work with Your District To Determine How To Use Title II Funds

Mathematics, Science, and Technology teachers are urged to become proactive about their professional training by working with their schools and districts to decide how federal education funds can be used.

The new law requires that to be eligible for NCLB Title II funds, a district must first conduct a *needs assessment* to determine the professional development needs of its teachers. Teachers must be involved in the needs assessment process.

Using the results of the needs assessment, the district is then required by law to develop a *local improvement plan* (professional development plan), which will address the determined needs. Teachers must also be actively involved in the planning and

implementation of the district's Local Improvement Plan. The Local Improvement Plan is submitted to the state education agency as part of the application for NCLB Title II funds.

Create an Individual Professional Development Plan

Mathematics, Science, and Technology teachers can also take an active role in professional development by working with their school and district to create the needs assessment, then using the results of the needs assessment to chart a personal professional development plan. Their personal plans should be consulted in developing the district's Local Improvement Plan.

A successful professional development plan should reflect multiple opportunities and activities for mathematics, science, and technology teachers to learn, practice, and enforce new behaviors. It should include a variety of professional development experiences, including workshops and seminars, immersion into inquiry science, study groups, research experiences, and mentoring.

Find Out Who Handles Professional Development in Your School or District

Contact your department chair, principal, district supervisor, school/district instructional leader, or your superintendent's office to learn who in your district handles professional development (and the federal grants that can pay for this training).

Plan Early!

When planning and revising professional development plans, it is important to start the process early—often months before implementing the plan. Many districts have concerns about the availability of qualified substitutes. This may determine how many teachers can be away from your school or district at the same time or how many days they can be gone. Since convention attendance may depend on the availability of substitute teachers, it is advisable to request substitutes early.