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Will NSF's Science Education Initiative Be Left Behind?

ROBERT E. GROPP

International assessments of student achievement in science regularly detail how high school graduates in the United States lag behind their peers in other industrialized nations. Despite some progress over the past few decades, the recently published *National Assessment of Educational Progress* shows that nearly one-half of students graduate high school with a less than basic understanding of science concepts. Parents, educators, and politicians have for years argued that stronger standards and increased assessment could improve student achievement. Thus, much of the national debate over education focuses on new content standards and student assessments. However, innovative teaching tools and resources to assist educators, such as the National Science Foundation's Math and Science Partnership (NSF-MSP) program, have also made their way onto the education policy agenda.

Announced in 2001 as a presidential initiative to strengthen science and mathematics education, the NSF-MSP is a competitive, peer-reviewed grant program that makes awards to partnerships among institutions of higher education, K–12 school districts, and other stakeholders, including nonprofit organizations and businesses. An NSF-MSP must have the active involvement of a math, science, or engineering department at the participating university and be thoroughly grounded in educational practices. In 2002, the NSF-MSP program gained congressional support when it was included in H.R. 4664 (Public Law 107–368), legislation authorizing programs and funding for the NSF through fiscal year 2007. With strong bipartisan support in Congress, and advocacy from science and education professional organizations, NSF-MSP quickly grew to a program that awarded \$436.6 million to 35 partnerships in fiscal years 2002 and 2003.

During the 108th Congress, the House Science Committee convened a hearing to evaluate the progress of the young program.

Representative Eddie Bernice Johnson (D–TX), ranking member of the subcommittee on research, noted that NSF-MSP funds help local communities “obtain a serious commitment of time and effort from science, math and engineering faculty at participating institutions” to institute sustained changes and improved educational outcomes. Representatives Johnson and Sheila Jackson Lee (D–TX) both expressed the hope that NSF-MSP will help close the achievement gap in the science and mathematics performance of diverse student populations.

Testifying before the committee, current grantee M. Susana Navarro, principal investigator for the El Paso Collaborative for Academic Excellence, an NSF-MSP in Texas, noted that the collaborative's project had already shown signs of progress in narrowing the achievement gap between white and traditionally underrepresented student populations. Moreover, student enrollment in college preparatory courses significantly increased. Other witnesses described how their grants had reinvigorated educators, who say they now feel challenged to try new teaching techniques and to develop innovative new curricula.

As with any grant that supports systemic change, ultimate success is measured by whether or not the successful elements of the models developed are sustained when federal funding is terminated. This was a central line of inquiry from now retired Representative Nick Smith (R–MI). As Navarro explained, the organizations involved with the El Paso project have embraced the new education model and begun to build elements of the program into organizational budgets, offering hope that the program will remain viable once federal funding ends. However, expanding the program to other communities, particularly those that are already financially strapped, often requires a financial prompt from the federal government.

While NSF-MSP enjoyed strong bipartisan support in its first two years, 2004 was plagued with political machinations that threatened the program's future. Despite apparent early success, the program's supporters were forced to fend off a fiscal year 2005 presidential proposal to transfer the program to the Department of Education, which runs a complementary but formula-based program. Unlike the competitive NSF-MSP, the Department of Education's program moves money through state education agencies. In the president's proposal, funds from the NSF-MSP would have been used by the Department of Education for remedial math programs.

Congressional leaders, such as Senator John D. Rockefeller (D–WV) and Representative Vernon Ehlers (R–MI), aggressively opposed the transfer. In a letter to Senate colleagues, Rockefeller wrote, “There is a clear need” for the NSF-MSP. The senator reminded his colleagues that knowledge gained from the partnerships “can improve and enhance state investments. Trying to move the Foundation's competitive grants into the Department of Education could force Congress to open the No Child Left Behind Act [for amendment]”—a prospect that most members of Congress would most likely wish to avoid, given the controversy increasingly associated with the No Child Left Behind education policy.

Although the proposed transfer was defeated, NSF-MSP supporters were unable to combat a provision in the final fiscal year 2005 omnibus appropriations legislation that cuts nearly \$100 million from NSF's Education and Human Resources Directorate, the administrative home of NSF-MSP. As the budget outlook for discretionary spending remains bleak, the program's continued growth will depend on how aggressively supporters, both in and out of Congress, fight for the program.

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