

On Mathematics and Science Education

By

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This past week (Nov. 17-19) the New Mexico Partnership for Mathematics & Science Education convened a Town Hall in Glorieta. At the forum, the 85 participants from throughout the state received comprehensive data and were asked to develop recommendations that policy makers can act on to elevate the importance given to mathematics and science education to match our state and national needs.

The data show that, given the current state of participation in mathematics and science education and our proficiency levels, we'll have no choice but to import more of these skills and export more of the work requiring these skills to meet our needs. As we are forced to do this, many of our citizens will be excluded from the opportunities and rewards that mathematics and science education provide.

New Mexico has an abundance of challenges that are best addressed through improvements in education. But the improvements we need will not come about unless we insist on them from the top down. The goal of the Partnership is to assist policy makers advance mathematics and science education based on the recommendations coming out of the Town Hall.

The eight recommendations for improving our mathematics and science education in New Mexico include a call for a statewide initiative led by the Governor and other policy makers that makes mathematics and science education a top priority for all schools.

The initiative would be supported by a broad-based advisory council that is charged with creating a strategic plan based on best practices and exemplary models that would guide the legislature and the administration.

Also recommended is the creation of a mathematics and science unit within the Public Education Department, reporting to the secretary, which would lead the work needed to move New Mexico students to national prominence in achievement levels.

Another recommendation would establish a model to align curriculum, teacher professional development, teaching tools and equipment, higher education, licensure, funding, technical assistance, internships, field work, research, family participation programs, incentives, business and industry involvement, and marketing and public awareness programs so they are working together to advance mathematics and science education. Technical assistance and funding would be provided by the state for school districts adopting the model.

Colleges and Universities also would be asked to increase the rigor of mathematics and science instruction for teachers, while state licensure requirements would ensure all teachers have competency in these subjects.

Another challenge addressed by the Town Hall is public perception. Mathematics and science disciplines are perceived to be abstract and difficult, as

well as isolated from the real world. Moreover, the public holds a “science and math phobia” where many parents accept their children’s poor performance and are unable to help them. This is underscored by pop culture, with T-shirts marketed to girls that read: “I’m too pretty to do math.” And it is reinforced by popular programming that labels students interested in mathematics and science as “geeks” and “outcasts.” The unfortunate result is a society that does not value these skills and an education system that reflects society.

With this in mind, the Town Hall also calls for a marketing and media campaign to educate the public on the importance of mathematics and science in our society and an initiative to develop strong advocates among civic and business leaders, as well as in the Legislature.

The Partnership will develop appropriate strategies for implementing the Town Hall recommendations so that policies can be modified and legislation can be introduced in the 2007 Legislature. 2007 is being called the “Year of Math and Science” in New Mexico with the convening of the Intel International Science and Engineering Fair to be held in Albuquerque in May of that year.

We want to thank the Town Hall participants for addressing this issue with study, diligence and creativity. Also, we deeply appreciate the leadership of New Mexico First for organizing the Town Hall.

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