

President's Message

Untapped Potential

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Under the spotlight of No Child Left Behind, schools and districts now report mathematics performance for all student populations according to gender, race, language, and socioeconomic status. Although some states and school systems have broken out achievement data in this way for some time, most schools have simply reported overall school or district averages. These average scores don't tell the whole story. When performance data are reported for every population of students, we reveal education's worst-kept and most devastating secret—that many of our students, especially in urban and rural schools of poverty, are not learning much mathematics. For many years we have raised the cry, “Close the achievement gap!” Yet, with the exception of a few promising examples, the achievement gap has endured.

The words *achievement gap* can make the task at hand seem overwhelming. Let me offer two new words to help us think about it from a different perspective—*untapped potential*. The reality of the achievement gap is that too many students never have an opportunity to develop their mathematical knowledge to its fullest potential.

Certainly many students with untapped potential carry the burden of challenges from their lives outside school. But these challenges are often aggravated by conditions within their schools. A look inside schools hints that it isn't the poverty, the neighborhood, the color, or the home language of these students that is the root cause of their lack of learning. Even a casual observer can see that our least wealthy schools do not have access to the same level of resources as their wealthier counterparts. Our states, communities, and school systems are challenged to distribute too few resources to too many places. Students in high-poverty schools have taken the worst hit, sometimes being taught by teachers who are out of field or are long-term substitutes with no mathematics background, and rarely having adequate access to high-quality instructional materials. Even basic issues, like safety and the physical condition of school buildings, can make learning a constant challenge for these students. Without a well-qualified mathematics teacher, appropriate instructional materials, and adequate time on mathematics, no student has a chance to achieve his or her potential.

Committed mathematics educators have long known what business, industry, and society are beginning to understand—that we cannot afford to waste precious human resources by denying some students the opportunity for a high-quality mathematics education simply because of conditions of their birth, heritage, or neighborhood. Whether intentional or unintentional, this kind of inequity hurts students, and it destines a nation to continually fall short of what it might otherwise accomplish.

Untapped potential is also found in classrooms and schools outside poor or urban areas—in low-level classes where some students are expected to learn less because they have never achieved at the same level as their schoolmates. Students with untapped

potential can sit almost invisibly in mainstream classes, where they tune out what a teacher has to say because they don't see the usefulness of what is being taught, because they have no confidence in their ability to do mathematics, or because they simply aren't engaged in what is going on.

How can a state, community, or school reach its full potential? It must begin by taking a hard look at reality. When a school or district's mathematics performance differs significantly from group to group, the system has a problem not with an underachieving group but with its mathematics program. When a state or a school system can predict mathematics performance by looking at a map, the system has a problem not with one place or another but with its mathematics program. And when a person can walk down the hall of a school and identify whether a math class is low-, medium-, or high-level just by looking in the window, the system has a problem not with “those” students but with its mathematics program.

Tapping untapped potential does not mean that we must invest all our resources in helping our lowest-achieving students. Students deserve, and society demands, that we also support and advance our most able students. But what if some of our presumed low-achieving students might be recognized as some of our most able students if given the right learning conditions?

Realizing untapped potential (and closing the achievement gap) means operating on two levels. First, we must ensure that every student learns challenging mathematics to a higher level than we have ever expected. Second, as we accomplish this ambitious task, we will discover far more stars than we ever imagined. Schools may need to offer something extra to support the brightest students. But first let's make sure we know who they are.

What else can we do? Continue to proclaim the importance of teaching all our students. End school policies and practices that sentence some students to fall ever farther behind. Advocate for adequate funding and appropriate resource allocation at the local, state, and federal levels. Support practices and programs to strengthen the mathematics knowledge and teaching skills of all teachers. Use our professional community as a forum for discussing delicate issues, exchanging successful practices, and sharing what we learn. Many of you are already accepting these challenges and are accomplishing great things. On behalf of all your students, your community, and the nation, I thank you.

How have you succeeded in helping students who had previously been unsuccessful learn mathematics? Have you discovered a star in an unlikely place? What are some of your greatest challenges in teaching all students? Share your stories, your thoughts, your concerns, and your ideas during my next President's Chat, scheduled for 3:00 p.m. EDT on Tuesday, July 26, online at www.nctm.org. 