

MESSAGE

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Untapped Potential

MOVING PAST THE ACHIEVEMENT GAP

Under the spotlight of the sweeping education legislation No Child Left Behind, schools and districts now routinely 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, in the past most reports have presented only 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: many of our students, especially in urban and rural schools of poverty, are not learning much mathematics. For years we have raised the cry, "Close the achievement gap!" Yet, with the exception of a few promising examples, achievement gaps have endured.

The term *achievement gap* can make the task at hand seem overwhelming, and it has been used so often that it has begun to lose its impact. Let me offer a new phrase to help us think about this crisis 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 or other knowledge to its fullest potential; too many stars never get to shine.

Our Students

Certainly many students with untapped potential carry the burden of challenges from their lives outside of school; these challenges contribute to their difficulties with learning. But these challenges are often aggravated by conditions within their schools. A look inside schools suggests 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 or provide access to the same level of resources as their wealthier counterparts.

Our states, communities, and school systems are forced to distribute too few resources to too many places. Students in high-poverty schools have taken the worst hit, sometimes being taught by teachers teaching out of their field or by long-term substitutes with no mathematics background. Many of these students lack access to high-quality instructional materials. Even basic issues like safety, adequate seating, and the physical condition of school buildings can make learning a constant challenge for these students. Without a reasonable physical environment, a well-qualified mathematics teacher, and appropriate instructional materials, no student has a chance to achieve his potential.

Committed mathematics educators have long known what business and society are beginning to understand: we cannot afford to waste precious human capital 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 institutional inequity reveals a system that hurts students and destines a nation to continually fall short of what it might otherwise accomplish.

Our Expectations

Untapped potential is also found in classrooms and schools outside of poor or urban areas—in low-level classes where some students are expected to learn less because they have never achieved in the past at the same level as their schoolmates. Students with untapped potential can sit almost invisibly in mainstream classes; they tune out what a teacher has to say for several reasons—because they don't see the usefulness of what is being taught, because they have no confidence in their ability to do mathematics, because they are distracted by issues outside of school, or because they simply aren't engaged in what is happening in the classroom.

Facing Reality

How can a state, community, or school reach its full potential? It must begin by taking a hard look at reality. When a school's 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, given the right learning conditions, some of our presumed low-achieving students might one day be recognized as some of our most able students? What if an unchallenged, unrecognized, and unsupported student languishing in a neglected classroom might be the person who could help solve one of society's great problems of the future? What if some of our greatest talent is sitting untapped in classrooms across the nation?

What Can We Do?

Realizing untapped potential (and in the process closing the achievement gap) means operating on two levels. First, we must do what some call *raising the floor*, to 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, so that we might also *raise the ceiling*. Schools may choose to offer something extra to support their brightest students and to let them soar. But first let's make sure we know who these students are.

WHAT ELSE CAN WE DO?

- We can continue to proclaim the importance of teaching all our students.
- We can commit to ending low-level tracking, endless remediation, and other practices and policies that sentence some students to fall ever further behind.
- We can advocate for all schools to receive adequate funding and appropriate resource allocation at the local, state, and federal levels.
- We can support practices and programs that strengthen the mathematics knowledge and teaching skills of all teachers.
- We can expand our accountability measures to assess what we value and take a stand against making high-stakes decisions based on a single test score.
- We can use our professional community as a forum for discussing delicate issues frankly and openly, exchanging successful practices, and sharing what we learn.

Many teachers are already accepting these challenges, and their students are accomplishing great things. On behalf of all their students, their communities, and the nation, we owe them our sincere gratitude, appreciation, and support.

Reflection and Discussion

FOR TEACHERS

- What issues or challenges does this message raise for you? In what ways do you agree with or disagree with the main points of the message?
- In what ways are you successful in helping students succeed who have previously been unsuccessful in learning mathematics?
- Have you discovered a star in an unlikely place? How do you nurture that star?
- What are some of your greatest challenges in teaching all students?
- How can we maintain high expectations in the face of the real challenges in dealing with diverse groups of students, including many who have significant learning gaps?

FOR FAMILIES

- What questions or issues does this message raise for you to discuss with your son or daughter, the teacher, or school leaders?
- How do you help your daughter or son believe that she or he has unlimited potential?
- Have you communicated with the teacher to find out where your son's or daughter's strengths lie? How can you encourage the development of these strengths?

FOR LEADERS AND POLICY MAKERS

- How does this message reinforce or challenge policies and decisions you have made or are considering?
- How well do the demographics in your advanced mathematics classes or tracks match the demographics in your lowest-level mathematics classes? How well do both reflect the demographics of your school and district?
- What alternatives to tracking practices might allow teachers to support students who are behind or struggling?
- What types of intervention programs, rather than remediation, do you have in place (or can you consider), including providing extra time and support before students who might be struggling fall too far behind?
- What alternatives to retention do you offer in order to help students who are behind without simply putting them through the same experience that was ineffective the first time?

RELATED MESSAGES

- Message 32, “Yes, but . . .,” challenges us to examine our assumptions and expectations for students.
- Message 3, “Making the Case for Creativity,” sheds light on an underdeveloped aspect of school mathematics, potentially one where underachieving students might shine.
- Message 37, “Boring!,” reminds us of the consequences when students are not engaged in school or in mathematics class.
- *English Language Learners in the Mathematics Classroom* (Coggins et al. 2007) provides insights and strategies to help students whose first language is not English reach their potential in mathematics.
- The Education Trust (www.edtrust.org) provides a variety of reports about inequities in schools and identifies schools that break expected low achievement patterns with high performance.
- *Mathematics Success and Failure Among African-American Youth* (Martin 2000) provides insights into how to support African American students in achieving their mathematical potential.

FURTHER READING

- *A Mind at a Time* (Levine 2003) looks at how some students are disadvantaged in school and focuses on using different approaches to teaching to students' varied strengths.
- *The Shame of the Nation* (Kozol 2006) is a challenging book that takes a hard look at lingering inequities in our schools as we enter the twenty-first century.
- *Take It Up: Leading for Educational Equity* (Becerra and Weissglass 2004) offers activities for educators and leaders to address educational inequities.
- *The Global Achievement Gap* (Wagner 2008) reminds us that our current emphasis on high-stakes testing can mask a student's most important abilities and can reinforce incorrect decisions about which students are most likely to succeed.