

Making the case for  
*small* schools.



## Big *reasons* for small schools.

American high schools operate in much the same way today as they did 50 years ago, leaving most of today's young people without the academic preparation they need to be successful in college, work, and their communities.

While elementary and middle schools have been the focus of numerous education reform efforts, high schools have largely been ignored. Even in the mid-1990s, when high schools began receiving better-prepared students, achievement remained flat, meaning that high schools were adding even less value than before.<sup>1</sup> One of the main problems is the large size of the schools: today's high schools often have enrollments of 2,000, 3,000, even 4,000 students.

Educators, policymakers, and parents are beginning to join researchers who have long trumpeted the benefits of small schools. Studies show that small schools have higher attendance rates, higher grade-point averages, lower dropout rates, and students and teachers who report being more satisfied with the experience.

<sup>1</sup>Campbell, J.R., Homb, C.M., & Mazzeo, J. (2000). *NAEP 1999 trends in academic progress: Three decades of student performance* (NCES 2000-469). Washington, DC: U.S. Department of Education. Office of Educational Research and Improvement. National Center for Education Statistics (NCES). Available: <http://nces.ed.gov/nationsreportcard/pdf/main1999/2000469.pdf>

# Missing the *mark*.



*“One of the key issues that I believe affects safety and the whole educational enterprise is the size of our schools. This is an area where we have made terrible mistakes... Too many schools are just too big.”*

— James B. Hunt Jr.  
First in America: An education governor challenges North Carolina

## Education matters more

Over the last 25 years, the United States has become a knowledge-based economy. Occupations employing primarily college graduates are projected to be among the fastest growing in the country.<sup>2</sup> Despite the increased value of education, each year American high schools fail to prepare more than half of all students for college, work, or citizenship.<sup>3</sup> With a persistent achievement gap and high dropout rates, high schools today are not making the grade. Results from the National Assessment of Educational Progress, the best national source of data on student achievement, paint a stark portrait.

<sup>2</sup>Moncarz, R. & Reaser, A. (2002). The 2000–10 job outlook in brief. *Occupational Outlook Quarterly*, 46(1). Available: <http://www.bls.gov/pub/ooq/2002/spring/oochart.pdf>

<sup>3</sup>Mortenson, T. (September 2002). “Chance for college by age 19 by state in 2000.” *Postsecondary Education Opportunity: The Environmental Scanning Research Letter of Opportunity for Postsecondary Education*. No. 123. The Mortenson Research Center on Public Policy.

## High school seniors lack basic reading and mathematics skills

While almost all seniors can understand simple sentences, nearly one in five cannot identify the main idea of what they have read.<sup>4</sup> Though most seniors can perform basic math computations, nearly two in five haven’t mastered the usage and computation of fractions, percents, and averages.<sup>5</sup>

<sup>4</sup>Donahue, P.L., Voelkl, K.E., Campbell, J.R., & Mazzeo, J. (1999). *The NAEP 1998 reading report card for the nation and the states* (NCES 1999–500). Washington, DC: U.S. Department of Education. Office of Educational Research and Improvement. National Center for Education Statistics (NCES). Available: <http://nces.ed.gov/nationsreportcard/pdf/main1998/1999500.pdf>

<sup>5</sup>National Center for Education Statistics (NCES). (2001). *NAEP summary data tables*. Washington, DC: U.S. Department of Education. Available: <http://nces.ed.gov/nationsreportcard>

## Too many students still don’t make it through high school

Between ninth and twelfth grade, over one million students will leave school without receiving a high school diploma. In some urban and poor rural school districts the dropout rates may exceed 50 percent. Hispanic public school students fare most poorly, with only 53 percent graduating from high school.<sup>6</sup>

<sup>6</sup>Greene, J. P. with Winters, M.A. (2002, November). *Public school graduation rates in the United States* (Civic Report No. 31). New York: The Manhattan Institute for Policy Research. Available: [http://www.manhattan-institute.org/html/cr\\_31.htm](http://www.manhattan-institute.org/html/cr_31.htm)

## Many students who finish high school are not prepared

Most students who do graduate from high school arrive on college campuses ill-equipped for the academic rigor of the university curriculum. While nearly 80 percent of all students who graduate from high school go on to college, more than half are required to take remedial courses.<sup>7</sup> These students are less likely to stay in college and earn a degree.<sup>8</sup>

<sup>7</sup>Berkner, L., Chavez, L. (MPR Associates), & Carroll, C.D. (1997). *Access to postsecondary education for the 1992 high school graduates* (NCES 98-105). Washington, DC: U.S. Department of Education. National Center for Education Statistics (NCES). Available: <http://nces.ed.gov/pubs98/access98105.pdf>

<sup>8</sup>Adelman as cited in Rosenbaum, J.E. (2002, April). *Beyond empty promises: Policies to improve transitions into college and jobs* (ED-99-CO-0160). Available: <http://www.earlycolleges.org/Downloads/EmptyPromisesRosenbaum.pdf>

## Racial and economic gaps are large and growing

In reading and mathematics, many African American and Hispanic students graduate from high school with skills at the middle school level.<sup>9</sup> Although some progress has been made, the achievement gap between white children and children of color and between low-income students and more affluent students has widened or remained static during the 1990s.<sup>10</sup>

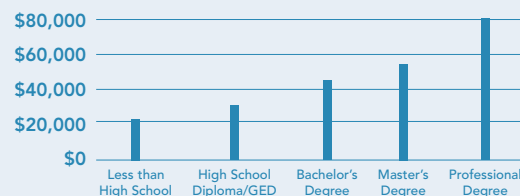
<sup>9</sup>National Center for Education Statistics (NCES). (2001). *NAEP 1999 long-term trend summary data tables*. Washington, DC: U.S. Department of Education. Available: <http://nces.ed.gov/nationsreportcard/tables/Ltt1999/lttintro.asp>

<sup>10</sup>Campbell, J.R., Hombro, C.M., & Mazzeo, J. (2000). *NAEP 1999 trends in academic progress: Three decades of student performance*. Washington, DC: U.S. Department of Education. Office of Educational Research and Improvement. National Center for Education Statistics (NCES). Available: <http://nces.ed.gov/nationsreportcard/pdf/main1999/2000469.pdf>

## College Pays Off

### Median Annual Earnings by Highest Educational Attainment 2000.

Moncarz, R. & Reaser, A. (2002). The 2000–10 job outlook in brief. *Occupational Outlook Quarterly*, 46(1). Available: <http://www.bls.gov/pub/ooq/2002/spring/oochart.pdf>



## Of Every 100 Kindergartners

- 69 Graduate from High School
- 58 Complete at Least Some College
- 29 Obtain at Least a Bachelor's Degree

Source: Greene (2002) and U.S. Department of Commerce, Bureau of the Census as cited in U.S. Department of Education, National Center for Education Statistics. (2002). *The condition of education 2002* (NCES 2002-025). Indicator 25: Educational Attainment. Washington, DC: U.S. Government Printing Office. Available: <http://nces.ed.gov/pubs2002/2002025.pdf>

# What's getting in the way?

## High schools are too big

Many high schools are just too big. Over the last half-century, average school enrollment has increased fivefold.<sup>11</sup> These large, impersonal institutions are failing to teach young people what they need to know to lead meaningful lives, succeed in college, and earn a decent living. This is disproportionately true for children from low-income neighborhoods. Students in large high schools also report having few significant relationships with teachers and mentors, in large part because teachers see so many students every day that it is almost impossible to build any sort of relationship with most of them.

<sup>11</sup>Cotton, K. (1996). School size, school climate, and student performance. *School Improvement Research Series (SIRS), Close-up #20*. Portland, OR: Northwestern Regional Educational Laboratory. Available: <http://www.nwrel.org/scpd/sirs/10/c020.html>

## Size Makes a Difference

- Average achievement is higher in small high schools
- More students from small high schools pass core classes and go on to college
- Effects of school size are greatest for low-income and minority students

Wasley, P., Fine, M., Gladden, M., Holland, N.E., King, S.P., Mosak, E., & Powell, L.C. (2000, June 20). *Small schools: Great strides: A study of new small schools in Chicago*. New York: Bank Street College of Education. Available: <http://www.bankstreet.edu/html/news/SmallSchools.pdf>



## Too many classes

High schools offer a dizzying array of classes, often four to six levels of each course, but only one of those levels is truly aimed at preparing students for college. Schools continue to enroll significant numbers of students in courses with little academic value, even though students themselves say they need something different.<sup>12</sup> Quantity is the guiding force, when it should be quality.

<sup>12</sup>Metropolitan Life Insurance Company (MetLife). (2000, September). *The survey of the American teacher 2000: Are we preparing students for the 21st century?* Available: <http://www.metlife.com/Companyinfo/Community/Found/Docs/2000ats.pdf>

## Not enough rigor

Research shows that students who take rigorous “college preparatory” coursework in high school learn more and perform better on tests. Regardless of whether the students view themselves as headed to college or bound for the workplace, the more rigorous courses they take the better they do. But fewer than three in 10 teenagers think that their school is “very academically rigorous,” and comparisons with schools in other countries show they are probably right.<sup>13</sup>

Eleventh graders in U.S. high schools are typically taught science that students in other industrialized nations are exposed to in the ninth grade. American ninth-grade students study math taught to seventh graders abroad. This is disturbing given that the quality and intensity of high school coursework is more important in determining college success than class rank or scores on college admissions tests.<sup>14</sup>

<sup>13</sup>Educational Communications, Inc. (1998). *Who's Who Among American High School Students* (34th ed.). Lake Forest, IL: Author. *In new frontiers for a new century: A national overview*. (2001, Spring). *Thinking K-16*, 5 (2). Washington, DC: The Education Trust. Available: [http://www.edtrust.org/documents/k16\\_spring01.pdf](http://www.edtrust.org/documents/k16_spring01.pdf)

<sup>14</sup>U.S. Department of Education. National Center for Education Statistics (NCES). (1998). *Pursuing excellence: A study of U.S. twelfth-grade mathematics and science achievement in international context*. Washington, DC: U.S. Government Printing Office, 1998. Available: <http://nces.ed.gov/pubs98/98049.pdf>

## Barriers to change

Educators interested in changing this system face many daunting barriers. High schools are the most intractable of K–12 institutions, with restrictive state laws, employment contracts, higher education requirements, and an array of interest groups dictating much of a school's policy.

# How *small* high schools can help.



*Recent Four-State Study: Small High Schools Reduce “Power” of Poverty by 30–50 percent.*

Source: Cotton; Howley & Bickel, 2000.

Fortunately, there are a growing number of exceptions to the prevailing gridlock in high school reform. Around the country, a new generation of small, highly focused schools is teaching us that high schools can succeed with all students.

## *Personalized learning*

Small high schools can provide a personalized learning environment where every student has an adult advocate and the opportunity to develop a relationship with a teacher or mentor. Students in small schools feel less alienated and tend to be more actively engaged in school activities. Respect and responsibility are hallmarks of these schools.<sup>15</sup>

<sup>15</sup>Fine, M. & Somerville, J. (Eds.). (1998). *Small schools, big imaginations: A creative look at urban public schools*. Chicago: Cross City Campaign for Urban School Reform.

## Safer Learning Environments in Smaller Schools

Percentage of Public Schools Reporting Incidents of:	<i>Small Schools</i>	<i>Large Schools</i>
<b>Serious Crimes</b>	<b>4%</b>	<b>33%</b>
<b>Physical Attack or Fight with a Weapon</b>	<b>2%</b>	<b>20%</b>
<b>Theft or Larceny</b>	<b>18%</b>	<b>68%</b>
<b>Vandalism</b>	<b>23%</b>	<b>62%</b>

DeVoe, J.F., Peter, K., Kaufman, P., Ruddy, S.A., Miller, A.K., Planty, M., Snyder, T.D., Duhart, D.T., and Rand, M.R. (2002). *Indicators of school crime and safety* (NCES 2003-009/NCJ 196753). Washington, DC: U.S. Departments of Education and Justice. Available: <http://www.safetyzone.org/pdf/indicators2002.pdf>

## *Achievement*

In a small school, it is easier for teachers to create a rigorous learning environment that stretches the abilities and imagination of each student. As a result, school size can have a powerfully positive effect on students’ motivation levels and ultimately on their educational achievement. For example, students in small schools in New York had higher graduation rates and lower dropout rates than their peers in larger schools.<sup>16</sup> Students in small schools in Chicago had dropout rates one-third lower than students attending big schools.<sup>17</sup>

<sup>16</sup>Cotton, K. (2001, December). *New small learning communities: Findings from recent literature*. Portland, OR: Northwest Regional Educational Laboratory. Available: <http://www.nwrel.org/scpd/sirs/nslc.pdf>

<sup>17</sup>Stiefel, L., Latarola P. Fruchter, NA, & Berne R. (1998). *The effects of size of student body on school costs and performance in NYC high schools*. New York: Institute for Education and Social Policy.

## *Engaged communities of learning*

The intimate setting of a small school facilitates a sense of familiarity throughout the extended school community. Parents feel more comfortable reaching out to teachers and participating in meaningful conversations about student progress. Students are more likely to be involved in a range of extracurricular activities.<sup>18</sup> These increased levels of participation create a feeling of vibrancy and excitement not usually found in large comprehensive high schools.

<sup>18</sup>Wasley et al., 2000.

## *Equity*

Small schools show the most promising effects on achievement for ethnic minority students and students from low-income families. Research from the Rural School and Community Trust shows that smaller schools in four states (Georgia, Montana, Texas, and Ohio) reduced the harmful effects of poverty on student achievement by up to 50 percent. The effect was greatest for schools serving the least affluent communities.<sup>19</sup>

<sup>19</sup>Howley, C.B. & Bickel, R. (2000, February). *School size, poverty, and student achievement*. The Rural School and Community Trust. Available: <http://www.ruraledu.org/mathew.html>

## *Professional growth for teachers*

Teachers in small learning environments feel that they can make a real difference in students’ learning and general quality of life because they know them. In smaller schools, teachers generally have closer relationships with students and other staff, experience fewer discipline problems, and are better able to adapt instruction to students’ individual needs.<sup>20</sup> Working in this environment gives teachers an opportunity to explore innovative instructional strategies that challenge their students and enhance their own professional development.

<sup>20</sup>Cotton, K. et al., 2001.

## Spreading the *word*.

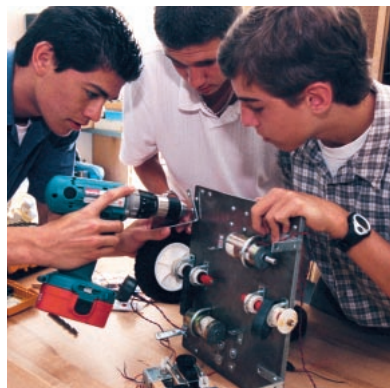
The research is clear—size makes a difference. Large, impersonal high schools have no currency today. It is time to rethink how we educate our young adults. It is time to redesign America's high schools so that all students receive a rigorous, personalized education.

While school size, or the number of students per grade level, clearly affects the quality of education, school size alone does not make a good school. Good schools have a common focus, uniting students and staff. Good schools have high expectations for all students and use performance-based assessments to measure progress. Good schools are personalized and value mutual respect and responsibility. Good schools give teachers time to collaborate and time to strengthen their skills. And good schools integrate technology as a tool into both the teaching and learning environments.

We know where to start. We need to redesign large, ineffective schools, create new, small high schools, and replicate proven models. The Bill & Melinda Gates Foundation is supporting high school reform efforts in communities around the country. But improving America's high schools will require broad-based support from policymakers, educators, students, parents, and others.

All students deserve a quality school that ensures they are college-ready. Let's start small. We know that works.





*For more information about schools that*

*work for all students and resources on small*

*schools: [www.gatesfoundation.org](http://www.gatesfoundation.org)*

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