

Closing the Graduation Gap: Toward High Schools That Prepare All Students for College, Work, and Citizenship

The Bill & Melinda Gates Foundation is committed to helping all students graduate from high school ready for college, work, and citizenship. This commitment is based on a vision of a secondary education system built on rigor and relationships—a system of high-quality, small high schools that offers rigorous preparation for any post-secondary education or employment pathway. This document outlines our thinking on these issues, the evidence and research underpinning them, and a policy agenda that supports this vision of high quality high schools for all students.

Why should all students be prepared for college?

Our civic, social and economic future depends on our ability to dramatically increase the percentage of students that leaves high school ready for college, work, and citizenship. The economy has changed. The workplace demands a higher level of competency than ever before. Many young people sense these changes, and the vast majority of them aspire to attend college. Yet too few of them have the education, the guidance, and the financial assistance to graduate from high school, attend college, and lead successful, productive lives. We must equip young people to navigate this new landscape.

Access to a high-quality education is a civil right. We must make it a reality for all young people. We know it is possible: There are dozens of examples of high-quality small high schools serving low-income student populations that achieve graduation and college attendance rates in excess of 90 percent. We know it is necessary: Full economic and civic participation demands a high level of education for each and every citizen. And finally, we know it is just: Our democratic values allow nothing less than true equal opportunity for all young people.

The economy and the nature of work have changed

Throughout the 19th and much of the 20th century, America's economic story has been one of industrialization. By the late 20th century, the story had changed. The numbers of industrial working class jobs that pay a wage sufficient to support a family have dramatically decreased, making way for the rise of the service and information economy. Experts disagree about what this portends for labor market demand and opportunities, but one thing is clear: Good, middle-class jobs now require skills acquired through high levels of education. These include complex problem solving, effective communication, and the ability to exercise independent judgment while working in groups.¹ That means *all* students need a college degree—or some form of quality post-secondary training—in order to participate fully in the economy. Recent economic trends make this clear.

- A college graduate earns 70 percent more than a high school graduate, and the growing income disparity in the United States is closely related to educational attainment. Even one year of post-secondary education increases lifetime earning.²
- The unemployment rate for high school dropouts is four times the rate for college graduates.³
- The U.S. Department of Labor predicts that 70 percent of the 30 fastest growing jobs will require education beyond high school, and 40 percent of all new jobs will require at least an associate's degree at a community college.⁴

¹ (Murnane & Levy, 1996, p.19)

² (Carnevale, 2001, pp. 53-4)

³ (Sum et al., 2001, p.9)

⁴ (Braddock, 1999, p.55, p.75)

- It is estimated that significantly narrowing the gap in college-going rates of the highest- and lowest-income Americans would add nearly \$250 billion to the gross domestic product and \$80 billion in taxes.⁵

Our democracy depends on an educated citizenry

Democratic institutions depend on an educated citizenry that is knowledgeable, reflective, and committed to these institutions and the values they embody. The challenges that our young people will inherit require that all students—not just an elite minority—leave school with an informed point of view, knowledge of the world, an ability to grapple with complex problems, and a willingness to engage with people different from themselves. Yet many observers over the last quarter century have noted that trends in the civic awareness and competence of young people are on the decline.

- Literature on “social capital” shows that young people are less engaged in collective civic institutions than their parents or grandparents were, thus depleting community capacity to address social ills.⁶
- Voter turnout has been steadily declining since 1960, but the decline has been especially acute among young people.⁷ In the 1996 and 2000 presidential elections, turnout among 18 to 25-year-olds was below 40 percent.⁸
- Despite rising levels of overall education, today’s young people have the highest score on record on the Political Apathy Index. They are considerably less interested and knowledgeable about public affairs and therefore less able to participate effectively.⁹

Our commitment to equal opportunity demands it

Our nation cherishes the ideal of equal opportunity. Yet our public school system continues to steer low-income African-American and Hispanic youth away from college preparation and attendance. This tracking denies them equal opportunity, limits their economic possibilities, and prevents their full participation in our democracy. In an economy that requires education for a family wage job, it is inherently unjust to continue such systematic discrimination.

- In 2000, just 69 percent of all U.S. students who had entered 9th grade four years before graduated from high school, and there were substantial differences based on race and ethnicity. The high school graduation rate was 76 percent for white students, 79 percent for Asian students, 57 percent for Native American students, 55 percent for African-American students, and 53 percent for Hispanic students.¹⁰
- Too few students demonstrate strong skills in essential areas of reading and math, and African-American and Hispanic youth score significantly lower than their Asian and white peers. For example:
 - Only 8 percent of white 17-year-olds, 2 percent of Hispanic 17-year-olds, and 1 percent of African-American 17-year-olds can learn from reading specialized materials, and only 46 percent of white students, 24 percent of Hispanic students and

⁵ (Advisory Committee on Student Financial Assistance, 2001, p.2)

⁶ (Putnam, 2000, p. 295)

⁷ (Carnegie Corporation of New York, 2001)

⁸ (Casper & Bass, 1998, p.5) and (Jamieson, Shin, & Day, 2002, p.6)

⁹ (Delli Carpini, & Keeter, 1996)

¹⁰ (Greene, J. P. with Winters, M.A., 2002)

17 percent of African-American students could understand complicated information they were given to read.¹¹

- In mathematics, only 10 percent of white 17-year-olds, 3 percent of Hispanic 17-year-olds and 1 percent of African-American 17-year-olds can solve multi-step problems. In addition, while 70 percent of white students can complete moderately complex mathematical procedures, only 38 percent of Hispanic students and 27 percent of African-American students can perform at the same levels.¹²

Low-income African-American and Hispanic students face a particularly difficult time making the transition from high school to college.¹³ Only 6 percent of young people from the lowest socioeconomic quartile earn a four-year college degree.¹⁴ Overall, American Indian, Hispanic, and African-American youth are substantially less likely to graduate from high school, enter college, and complete a degree than their Asian and white counterparts.¹⁵

What will it take to prepare all students for college?

Preparing all students for college starts with recognizing the weaknesses in the existing systems and structures. Today's high schools are obsolete; they do not prepare all students for college and instead put many students on tracks to nowhere. Tackling this problem involves first creating a range of small, focused, and academically rigorous high schools from which parents and students can choose. Schools and districts do not operate in a vacuum and establishing a policy environment education that promotes college readiness and fosters strong, small high schools is the other half of the equation.

Today's high schools are obsolete

Preparation for higher education begins in the cradle. Research confirms what centuries of experience suggest—that consistent, nurturing attention to infants' and children's physical, emotional and cognitive needs is critical to healthy development and capacity for learning. We affirm and encourage efforts directed toward improving neonatal and infant health care, preschool opportunities, and early childhood literacy for poor and minority families. We also applaud the successes in elementary school reform over the last quarter-century. Without these critical early interventions, all subsequent efforts on behalf of children are seriously compromised.

However, research also shows that the effects of early interventions diminish over time if not continually reinforced as children grow and mature.¹⁶ In many cases, our secondary schools not only fail to reinforce, but actually undermine, early childhood gains. Thus, no strategy for dramatically improving post-secondary preparation, participation, and success can work unless it focuses squarely on transforming today's high school. Despite a growing recognition that large, comprehensive high schools are ill suited to the challenge of educating *all* students to high standards, the American high school remains largely the same as it was a half century ago, when its mandate was to educate a scientific elite for national defense and sort the rest into low-expectation tracks. The mandate has changed and now so must the high school.

¹¹ (U.S. Department of Education, National Center for Education Statistics, 1999 NAEP Summary Data Tables as cited in Education Trust, Inc., 2001a, p.13)

¹² (U.S. Department of Education, National Center for Education Statistics, 1999 NAEP Summary Data Tables as cited in Education Trust, Inc., 2001a, p.14)

¹³ (U.S. Department of Education, National Center for Education Statistics, 2000, Indicator 30)

¹⁴ (Advisory Committee on Student Financial Assistance, 2001, p.4)

¹⁵ (US Bureau of Census as cited in Education Trust, Inc., 2001b, p.9)

¹⁶ (Joint Center for Poverty Research, 2000, p.2)

High schools have been neglected in the past two decades of education reform.

Other than a brief effort to raise high school graduation requirements in the wake of *A Nation At Risk*, most state and local reforms have focused on elementary schools.¹⁷ More recently, nearly half the states have instituted high-stakes tests for high school graduation, but few have matched these new requirements with additional support for students or schools. Even fewer have initiated systemic efforts that would give students a more rigorous and engaging curriculum and foster connections between students and caring adults both in the community and at work. Consequently, the combination of increased pressure and inadequate help is pushing far too many students out the door before they graduate.

Most current and recent federal initiatives such as class-size reduction, early reading, and stronger accountability have focused on the elementary or middle school grades, not high school. Nearly all of the funds provided by the Elementary and Secondary Education Act are spent at the elementary level.¹⁸ For the most part, federal efforts that have been directed at the high school level, such as the School-to-Work Opportunities Act and the Carl Perkins Vocational Education Act, have operated at the margins of the secondary school system, and have not had much impact on the core high school programs. Only recently has the federal government begun to focus on significant changes in the basic design of high schools, through the Small Learning Communities Program. Yet that program's future is uncertain.

The performance of U.S. high schools is too low, particularly for minority and low-income youth.

- After leading the world for decades, the United States high school completion rate among 25-34 year-olds has dropped to ninth position in a ranking of 32 industrialized countries.¹⁹ Furthermore, the U.S. graduation rates are overstated by nearly 10 percentage points by Graduate Equivalency Degrees (GED).²⁰
- Forty-six percent of students who enter post-secondary education of any type (and 64 percent of those entering community colleges) are required to take remedial courses in one or more subjects because they lack the skills to take regular courses.²¹ These students are less likely to stay in college and earn a degree.²²
- U.S. 12th graders perform near the bottom of participating countries in math and science, even though U.S. fourth graders are among the highest performing students internationally, and eighth graders are at or near the international average.²³

Eliminate tracking and make the goal of high school to prepare all students for college

Today's high schools continue to sort students into distinct tracks and destinations. They effectively prepare a small portion of their students for college, far less adequately prepare a larger number for the workplace, and lose roughly a quarter of the students, who drop out without earning a degree.

High schools offer a wide range of curricular choices, but they do little to encourage low-income and minority students to enroll in a coherent program of college preparatory courses. Consequently, low-income students are less likely to be enrolled in a college preparatory track (28.3 percent enrolled) than middle- or high-income students (48.8 percent and 65.1 percent respectively);²⁴ African-American and

¹⁷ (Viadero, 2001)

¹⁸ (Trammel, 2002)

¹⁹ (Organisation for Economic Cooperation and Development, 2002, Indicator A1)

²⁰ (Greene, 2002) and (Kaufman, Kwon, Klein, & Chapman, 2000, Table 4)

²¹ (Adelman as cited in Rosenbaum, 2002, pp.5-6)

²² (U.S. Department of Education, National Center for Education Statistics, 1997 as cited in Le, 2002, p.1)

²³ (Third International Mathematics and Science Study 1999 as cited in Hoff, 2000) and (Third International Mathematics and Science Study 1995 as cited in Hoff, 2001)

²⁴ (U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988: Second Follow-Up, 1992 as cited in Owings, 1995, p.36)

Hispanic students are less likely to be enrolled in a college preparatory track (25.7 percent and 22.6 percent respectively) than either Asian (42.1 percent) or white students (34.1 percent).²⁵

The goal of preparing all students for college does not require “lowering the ceiling” by neglecting or holding back the brightest students. Rather, it is about helping *all* students reach their full potential.

Create a range of small, focused high schools that prepare all students for the future

We know what good schools look like. They engage students in learning. They encourage students to struggle with complex problems and ideas. And they reward students for competence rather than seat time. Distilling the research on successful schools, seven key attributes emerge.^{26 27}

- Common focus – Staff and students are driven by a shared understanding of what an educated person is and what good teaching and learning look like. Every decision, every action, is guided by this common vision.
- High expectations – Teachers are dedicated to helping students meet state and local standards. All students leave school prepared for success in college, work, and civic life.
- Personalization – The school promotes sustained relationships between students and adults; every student has an adult advocate.
- Climate of respect and responsibility – The environment is authoritative, safe, ethical, and studious; teachers model, teach, and expect responsible behavior; relationships are based on mutual respect.
- Time to collaborate – Teachers have time to work collaboratively with one another to meet the needs of all students: the school partners with businesses, civic organizations, and institutions of higher education to give students the best opportunities.
- Performance-based – Students are promoted to the next instructional level only when they have achieved competency. They receive extra help when they need it.
- Technology as a tool – Appropriate technologies are used to design learning opportunities and communicate with the public about performance.

Successful schools combine *rigor*—high expectations and a meaningful course of study—with *relationships*—powerful, sustained involvement with caring adults who mentor, advise, and support students throughout their high school careers.

Establish a policy environment that promotes college readiness and attendance for all students

All children need access to quality early learning experiences. All students need the benefits of early literacy. All students should be competent in algebraic thinking and problem solving, and be exposed to the importance of post-secondary education before high school. All students should have the benefit of qualified teachers who, in core subjects, teach no more than 80 students a day. All teachers should have time to work together to improve instruction and meet shared challenges. Master teachers should receive additional pay, mentor new teachers, and have the opportunity to work year round. All school facilities should be clean and safe with access to supported technology.

²⁵ (U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988: First Follow-Up Student Study as cited in Education Trust, Inc. 1999, p.35)

²⁶ (Office of Superintendent of Public Instruction, 2002)

²⁷ (Driscoll, 2002)

These critical reforms will not happen until the broader policy environment supports and sustains them. Certain “mission critical” policy conditions must be in place for large-scale success:

- **Standards and assessments**
- **Accountability**
- **Need-based funding**
- **School choice**
- **College access**

These reforms, implemented wisely, would create a system that is more coherent, equitable, and supportive for all students. They require a tremendous amount of political will and sustained effort. But the incentives and rewards are also strong—a vigorous economy, a healthier democracy, and a more just society.

Standards and Assessments

States must establish academic standards that are rigorous, reasonable, performance-based, and aligned with the knowledge and skills necessary for college, work, and citizenship. In particular, there must be a core set of standards that define essential literacy and quantitative reasoning skills. They must be aligned with post-secondary placement standards and measured with high-quality assessments that all students must pass. States should also require local school districts and schools to institute an additional set of assessments aligned to state standards in other subject areas. In order to encourage schools to adopt clearly defined but varied approaches to curriculum and instruction, districts and schools should have the flexibility to use assessments that are fully aligned with their particular approach, such as interdisciplinary projects and demonstrations, or other ways that allow students to progress and graduate by demonstrating important skills. Such policies will require most states to make significant midcourse corrections to the standards and assessments they have adopted over the past five to 10 years.

Align high school graduation standards with college entrance requirements. Virtually every state has begun implementing standards and assessments. But in most states, there is no relationship between the knowledge and skills required for high school graduation and those required for success in college. This undermines both the coherence and legitimacy of standards-based systems. If states are serious about preparing all students for college, they must align high school exit standards with college entrance requirements. At the same time, college entrance requirements must become less test- and course-based and more performance-based, so a greater variety of qualified students can attend.

Develop standards-based assessments that measure what’s important and provide timely data for educators and parents. Current state assessment systems suffer from three crippling flaws:

- Too many states adopt off-the-shelf tests that are completely misaligned with their standards.
- Testing remains a one-time, end-of-year event subject to statistical errors with unacceptable consequences in a high-stakes environment.²⁸
- It takes months to return results; students are often three months into the next school year before their teachers receive critical information about their strengths, weaknesses, and overall progress.

Assessment must support student learning. States need to invest in developing diagnostic, technology-based assessments that are valid and reliable, can be administered as needed throughout the academic year, and that can return immediate and useful diagnostic data. States and districts also need to invest in training teachers to develop, administer, and interpret classroom-based assessments.

²⁸ (Amrein & Berliner, 2002)

Develop policies that encourage schools to promote attitudes conducive to work and citizenship. Graduation requirements should reflect the personal and social skills necessary for further learning, work, and citizenship. These include civic knowledge and understanding, tolerance, the ability to think and work with others, and a disposition to contribute to the collective good. Students need to leave school intellectually sophisticated, morally committed, and capable of positive civic action. They need schools that consciously and effectively develop these capacities. These skills are important but difficult to measure, so states should require districts to develop low-stakes measures of student learning and other performance indicators in these areas.

Accountability

We must focus on aid and intervention for school improvement, not just punishment for poor performance.

Address the graduation gap along with the achievement gap. High schools must be accountable both for student achievement and attainment—for student performance with respect to state *academic* standards, as well as for high school graduation and post-secondary enrollment. To be effective, the two must carry equal weight. In the past, graduation standards without achievement standards led to lower standards and social promotion; achievement standards without attention to graduation rates, however, have tended to increase dropout rates. Together, each provides a check on the other, and offers clearer direction for policy and practice.

Collect and disseminate credible information about school and district performance. Information on school and district performance is haphazard and unreliable. Most states do not have common, tough-minded metrics for estimating graduation and dropout rates, and districts lack incentives to report bad news. Highly mobile students are difficult to track. What information is available is often difficult for parents to obtain and interpret. States should ascertain graduation rates using “cohorts” to estimate how many eighth graders in a given year graduate five years later. They must adopt public information systems that rigorously track student progress and report data widely, consistently, and in terms the public understands. Most importantly, states must adopt student identification numbers that make it possible to track students who leave a school.

Use data to improve teaching and learning. Teachers should use data on student performance to improve their teaching. States and school districts must support this practice by providing rich and timely analytical data using online diagnostic assessments and other instruments.

Support strategies that help students meet standards. Low-performing high school students must receive extra help in order to meet state standards. Redesigned schools are a start, but state and local leaders should work together to mobilize community and faith-based organizations, colleges and universities, businesses, libraries, and other institutions on behalf of at-risk youth. These institutions should provide after-school programs and study space, trained tutors, community service internships, summer jobs, and an array of other supports and incentives for young people to work hard and stay in school. It is especially helpful if these programs are aligned with the regular instructional program. Teachers must also work together to improve instruction by planning and implementing curriculum and instructional activities aligned with standards.

Intervene in persistently low-performing high schools swiftly and decisively. Large, chronically low-performing high schools must be closed down and reopened—with new leadership and carefully selected staff—as small, focused, and autonomous high schools. The intervention strategies typically used for elementary schools, such as providing technical assistance and professional development for current staff to update school improvement plans,

improving curriculum and instruction, or implementing comprehensive reform models, simply won't work in large, complex, and change-resistant high schools.

Need-Based Funding

States must ensure that funding levels are adequate to provide the instructional resources and other supports necessary to enable every student to meet standards and complete high school ready for post-secondary education. Funding levels must reflect the real costs of educating students, not the wealth of local communities. Low-income students must not receive fewer and lower quality instructional resources than their wealthier counterparts. Instead, the financing formula must provide extra resources for students with special needs, such as students with disabilities, English-language learners, and students from low-income families. Funds should follow the student, so schools have the necessary resources to properly educate the students they enroll.

Give schools flexibility in how they use funds. State and local funding streams that include narrow requirements for how funds must be spent must be overhauled.

Provide each school with the budgeting tools and information necessary to manage its budget. Local systems, too, must be overhauled to enable decision-making at the school level. And schools must take advantage of this flexibility by learning to invest in education resources that add value and improve performance, rather than permitting long-standing traditions and unexamined beliefs to dictate spending patterns.

Re-examine the incentives states provide for school construction. In many states, reimbursement formulas (as well as architectural and land-use standards) drive local communities to continue to build large high schools, despite strong evidence that small high schools are more effective. States should provide incentives for the construction of small high schools by limiting the size of facilities they will help finance, or by phasing out state funding once a building exceeds a particular capacity.

School Choice

We must establish mechanisms that allow all students to select from a range of rigorous, high-quality schools, and access the school of their choice. A system of public school choice must go hand-in-hand with the creation of a diverse set of small, focused, and autonomous high schools. All students must be entitled and empowered to choose their school. Subject to size limitations, schools must accept and serve all interested students. Public school choice should not become a mechanism for segregating students based on race, ethnicity, or income. Additionally, states need to provide parents with information about school availability and performance, and make transportation and other reasonable accommodations to assure that a full range of schools are available to all.

Give schools authority to hire their own teachers. In a system of small, focused schools, there must be a strong measure of choice in how teachers are assigned to schools. Schools must be able to recruit and accept like-minded teachers who are committed to the school's mission and philosophy, and teachers must be able to affiliate with schools that reflect their own commitment.

Create policies that make it easier to create charter schools and other new schools. Local school boards can and should allow new schools and in-district charters, particularly in states without charter schools laws. Chartering agencies and local school boards must ensure that every neighborhood has a range of high-quality choices for students and families. At a minimum, this means starting new small schools in communities that do not have enough of them. It also means conducting careful reviews of charter proposals before agreeing to open a school, and being sufficiently well-informed and prepared to act in instances where schools are poorly managed or ineffective.

Strengthen charter legislation. Approximately 40 states now have charter laws, but most severely restrict opportunities to create new, innovative, and more effective schools. States

should remove existing limits on the number of new charter schools, provide assistance to new schools in obtaining and renovating facilities, assure that state and district per pupil funding is equal to traditional schools at the same grade level, and create incentives to increase the number of charter authorizers and sponsors.

College Access

We must ensure that college awareness, access, guidance, aid, and support are available to all. First, states and the federal government must do a better job supporting institutions and providing student financial aid so low-income students can more readily afford college. This means better-targeted and larger need-based grants and scholarships, and less reliance on loans for low-income students. Second, most financial aid is designed to promote *access* to higher education, on the assumption that once enrolled, students will succeed. Yet low persistence and completion rates suggest that this assumption is ill-founded. Low-income and minority students in particular often need substantial social and academic support once in college. This support must start long before students arrive at college, beginning with college awareness in middle school and high school, and include effective guidance to help students decide where to go to college and what classes to take to prepare.

Expand definitions of "merit." Financial decisions should not be based solely on a single measure, but on a battery of desirable achievements such as grades, SAT/ACT scores, letters of reference, and demonstrations of leadership and service. Additionally, criteria must be established to recognize and reward students who do not score well on standardized tests but do well in other areas.

Place a reasonable income cap on scholarships so funds are directed to students who truly need them. States should allow qualified low-income students to receive both need-based and merit-based aid instead of forcing a choice between the two, as many systems *currently* do. Scholarship application processes need to be simple and uniform for all who apply—the process should not be more complicated for low-income students.

Establish college awareness programs and mentorship programs for low-income and minority students. States or school systems should sponsor programs like the College Board's "College Ed" program, which helps middle school students begin thinking of themselves as "college material," and begin charting a path to get there. Schools and colleges also need to provide more focused academic and social support services to help students persist through high school, apply for post-secondary admission and financial aid, and stay in school until they graduate. One such approach is to implement advisory groups that provide every child with an informed adult advocate to counsel and coach them through post-secondary admissions processes.

The Commitment

The Bill & Melinda Gates Foundation has committed \$2 billion to increase the number of low-income and minority students who graduate from high school and attend college. But these investments are just a fraction of the public and private commitment it will take to close the graduation gap and boost college completion for low-income and minority students.

Substantial work has been done—and will need to continue—in early childhood education, literacy, teacher preparation, and leadership development. Focused efforts in these areas have moved American elementary school students to the top of the world in achievement, proving that attention and funding concentrated on one part of the educational system can reap significant rewards. However, the plight of American high schools and the dismal performance of high school students as compared to their international peers show that simply "fixing the younger grades" will not automatically fix the older grades. We hope to catalyze the kind of sustained commitment to high school improvement that has so successfully turned around the nation's elementary schools.

Through our investments—and in partnership with other funders, dedicated educators and policy-makers—we intend to help demonstrate how small, focused high schools can more effectively prepare young people for further learning, employment, and participation in our democracy. We will work with others to challenge—and change—the conventional wisdom that *some* high school students should be headed for college, others for vocational or service work, and yet others can simply drop out without serious consequence for themselves or their communities. We seek to redefine high school as a rigorous, but nurturing place that leads every student down the road to success. And we hope to bolster this definition by creating many examples of these effective small schools throughout the nation. To ensure the broadest impact, we will also help states and local communities create the policy environment and policy tools to support these high school reforms.

Simply, we will work with others to change what America thinks high school should be and should do. We will work to fundamentally change high schools so they prepare *all* of our young people for college, work, and citizenship in the 21st century.

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