

Evaluation of the Bill & Melinda Gates Foundation's High School Grants Initiative

Executive Summary of the 2001-2005 Final Report



Prepared by:
The American Institutes for Research

SRI International



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Evaluation of the Bill & Melinda Gates Foundation's High School Grants Initiative: Executive Summary of the 2001-2005 Final Report

August 2006

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The work described in this document was supported by the Bill & Melinda Gates Foundation through an evaluation contract. Opinions expressed herein are the authors' and do not necessarily reflect those of the foundation. Please direct inquiries to Charles Storey at The American Institutes for Research, 1000 Thomas Jefferson Street, NW, Washington, DC 20007 or cstorey@air.org.

The Evaluation of the Bill & Melinda Gates Foundation's High School Grants Initiative is a collaborative effort between the American Institutes for Research and SRI International. This work, which began in 2001, is supported through funding by the Bill & Melinda Gates Foundation.

This is the Executive Summary of the 2001-2005 Final Report. The Final Report is the final installment of an ongoing series of reports based on the evaluation of the Bill & Melinda Gates Foundation's high school grants. The views, findings, conclusions, and recommendations expressed herein are those of the authors and do not necessarily express the viewpoint of the foundation.

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Executive Summary

The Bill & Melinda Gates Foundation's High School Grants Initiative

The Bill & Melinda Gates Foundation's high school initiative seeks to catalyze the creation of a new kind of American high school—one in which every student has a challenging academic program that provides sound preparation for college and for family-wage jobs and the demands of good citizenship. The foundation believes that high schools need to instill rigor into the academic program of each and every student (not just those in an honors or higher academic track), provide learning experiences relevant to student interests and potential career choices, and support students not only through additional learning opportunities but also through the efforts of caring adults who can inspire them both academically and personally.

The foundation's national high school reform work began in 2000-01 with the award of grants to 12 nonprofit organizations charged with creating high schools that would embody these ideals. These intermediary organizations received grants to establish effective high schools, either by starting new schools or by fundamentally redesigning existing comprehensive high schools to form smaller, more focused units, whether separate schools or "small learning communities" (SLCs). In either case, the foundation believed that the resulting schools should be characterized by a common focus and high expectations for all their students and by powerful teaching and learning. The foundation expected that schools created under its initiative would be small (typically no more than a hundred students per grade), not because being small is an end in itself but because the greater personal attention that comes with a small size makes it possible to implement the combination of a supportive climate and a rigorous program.

Individual schools cannot always successfully engage in reform in isolation, and the foundation recognizes that truly effective reform at the school level necessitates the systemic involvement of districts and state education authorities. Therefore, to support reformers' work, the foundation asked beneficiary districts and states to commit to providing supportive operating environments for the reforming schools. The support that districts and states can foster, of course, varies according to local scenarios, but the foundation articulates key building blocks for a supportive environment. These blocks include high levels of support for teachers and schools; well-articulated and aligned standards, curricula, and student assessments; rigorous academic standards and offerings; and engaged communities. The foundation expects systems and schools to which it makes grants to implement and improve these prescriptions with the goal of sustaining structures and policies that foster school reform.

Since 2001, an evaluation team of researchers from the American Institutes for Research (AIR) and SRI International has been engaged in the study of a sample of the schools being created or redesigned through the foundation's national education initiative. Data regarding student outcomes in these new high schools have emerged over time, both

because grantee organizations staggered their school openings across multiple years (rather than opening all their schools in the first year of their grants) and because new schools typically have opened with a single grade level (usually ninth grade) and added a grade each year. The timelines for redesigning existing high schools also spanned multiple years. The first two evaluation reports (AIR/SRI, 2003, 2004) focused on issues of implementation, describing the early experiences of the first set of schools opened or preparing for redesign as a set of smaller units under the foundation’s national education initiative. A series of reports released in 2005 (Mitchell et al., 2005; Rhodes et al., 2005; Shear et al., 2005) used data collected from schools in 2002, 2003, and 2004 to explore the school climate and the process of starting a new high school or redesigning an existing school as a set of smaller units. These reports also examined the nature of teaching practices and student work at these schools and early outcomes for students attending schools that received support under the foundation initiative.¹ This report incorporates additional data collected in 2005 and focuses on the initiative’s outcomes during its first 4 years for students, classroom practice, and school systems.

Key Findings

Six overarching themes emerge from the data and analyses described in this report:

- ◆ The new high schools created with foundation support are fostering better outcomes for students than comparison schools in terms of engagement, attendance, grade-to-grade progression, and the quality of student work in English/language arts (ELA).
- ◆ The new high schools have not experienced the same kind of success in terms of standardized achievement test scores or in terms of students’ classwork in mathematics. Mathematics learning appears weak, whether measured through standardized tests or through expert teachers’ ratings of student work.
- ◆ New high schools face a number of challenges to their continued program development and operation, including serious issues related to staff retention and staff recruitment in some critical subject areas, such as mathematics.
- ◆ Within a 3-year time frame, it appears that positive outcomes for students are more likely to be obtained through starting new high schools than through redesigning existing schools with poor track records. This conclusion must be tempered, however, in light of questions concerning possible unmeasured self-selection factors leading different kinds of students to enroll at new schools and the lack of graduation rate data on an adequate sample of new schools.

¹ These reports—*Rigor, Relevance, and Results: The Quality of Teacher Assignments and Student Work in New and Conventional High Schools* (Mitchell et al., 2005); *Getting to Results: Early Student Outcomes in New and Redesigned High Schools* (Rhodes et al., 2005); and *Creating Cultures for Learning: Supportive Relationships in New and Redesigned High Schools* (Shear et al., 2005)—are available for download at <http://gatesfoundation.org/Education/ResearchAndEvaluation/Evaluation/HSEvaluation.htm>. They are also available on the AIR Web site at <http://www.air.org>.

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- ◆ The diverse nonprofit organizations that received foundation grants have been supporting high schools in multiple ways; however, individual grantee organizations typically have strong capacity to support schools in some ways but limited capacity in other areas, with secondary curriculum being a common weakness.
 - ◆ An increase in public school choice is occurring in the jurisdictions that we studied.

More specific findings in the areas of student outcomes, instruction, and systems change are discussed below.

Outcomes for Students

When the data used in this report were collected, the foundation had been working with the schools in our study sample for at most 4 years. Many of the foundation-supported schools therefore had not had sufficient time to systematize their practices and mature as institutions. More definitive conclusions about student progress, including analysis of graduation and college attendance rates, will be possible only after the schools and students have been followed for a longer period of time. Nevertheless, 4 years after the first schools opened or began planning for redesign under this major initiative, it is reasonable to review the available evidence regarding outcomes for students.

We examined three types of student outcome data. First, we used extant district-maintained data for indices, such as attendance and test performance, as well as student demographic data. In addition to looking at student achievement as measured by test scores, we examined students' performance in ELA and mathematics by analyzing samples of students' work. We collected samples of student work from 10th-grade ELA and mathematics classes in 12 new foundation-supported schools and 8 schools with similar student populations in the same or nearby districts. Master teachers from other high schools, who were not told the type of school each piece of work came from, scored the work on the extent to which it demonstrated deep conceptual understanding and a command of the procedures and conventions of the subject area. Finally, student surveys addressed issues of students' engagement with school and their aspirations for further education.

Findings regarding student outcomes include the following:

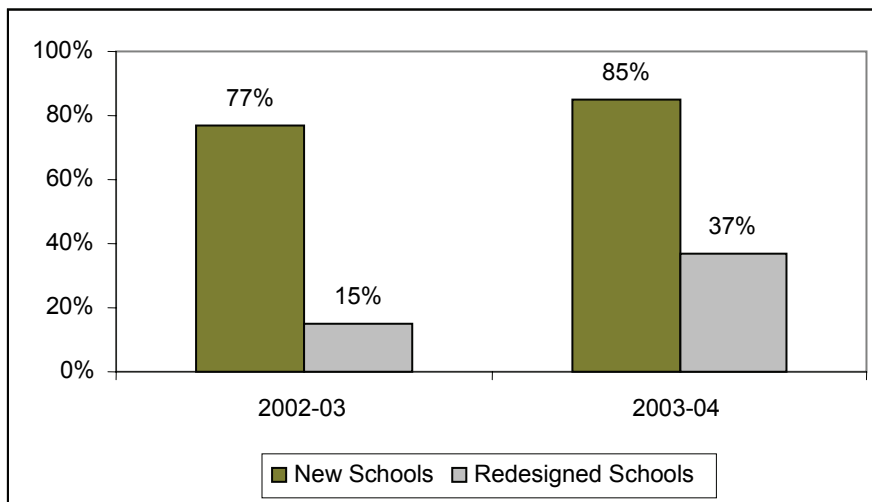
- ◆ **The attendance rates at new schools created with support from the foundation generally exceed those of other schools in their districts.** More than 80% of the foundation-supported new schools in our sample had attendance rates that were higher than their district averages.² For redesigned

² In reviewing the district data, it should be kept in mind that the foundation's high school initiative is focusing on urban districts serving large proportions of low-income, African-American, and Hispanic/Latino students. Our analyses show that, on average, the proportion of students on free or reduced-price lunch and the proportions of African-American and Hispanic/Latino students at the schools receiving foundation support are

schools as a group, however, attendance rates were below their district average rates.

In 2002-03 and 2003-04, substantial majorities of new schools had attendance rates above their district averages, while most redesigned schools did not (Figure 1).

Figure 1. Percentage of Schools With Attendance Rates Above Their Respective District Averages, by School Type, 2002-03 and 2003-04



Sample. Number of new schools = 26; number of redesigned schools = 27

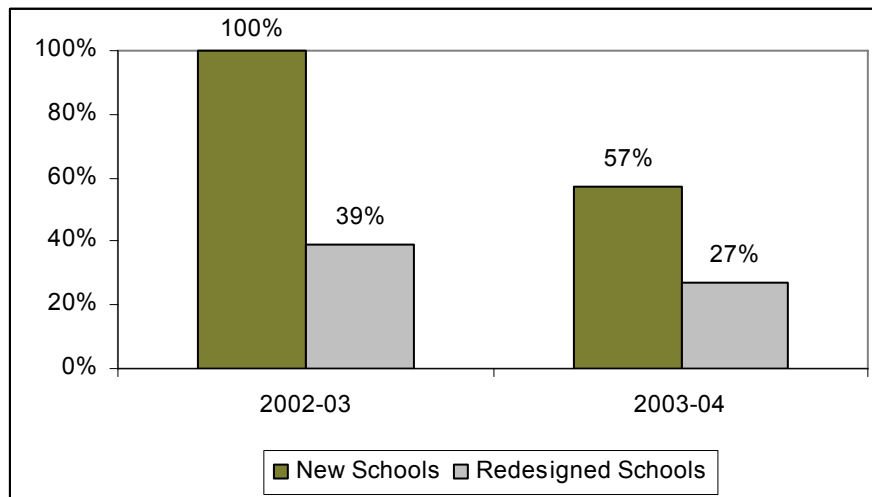
Data sources. Extant data from six districts

- ◆ **The progression rates at foundation-supported new schools exceed the average rates of the schools' districts.** One hundred percent of the new schools in our sample had 9th-to-10th grade progression rates in 2002-03 that exceeded their district average rates. In 2003-04, this percentage fell to 57%, still indicating that more than half of the new schools had progression rates above their district averages. The decrease is consistent with dips witnessed in other outcomes as new schools move beyond their initial years. Consistent with findings regarding attendance rates, most of the 9th-to-10th grade progression rates at redesigned schools fell below the rates of the schools' respective districts. Only 39% of progression rates at the redesigned schools were above their respective district's average in 2002-03 and only 27% in 2003-04.

higher than the averages for other schools in their districts. The redesigned schools serve a particularly low-income, predominantly minority student population.

In 2002-03 and 2003-04, substantial majorities of new schools had average 9th-to-10th-grade progression rates higher than their district averages, while most redesigned schools did not (Figure 2).

Figure 2. Percentage of Schools With 9th-to-10th-Grade Progression Rates Higher Than Their District Averages, by School Type, 2002-03 and 2003-04



Sample. Total number of schools = 25 (new, 7; redesigned, 18)
Data sources. Extant data from four districts

Exhibit 1 offers possible explanations as to why new schools have student attendance and progression rates that are higher than their respective district averages.

Exhibit 1. The Story Behind Higher Student Attendance and Progression Rates at New Schools

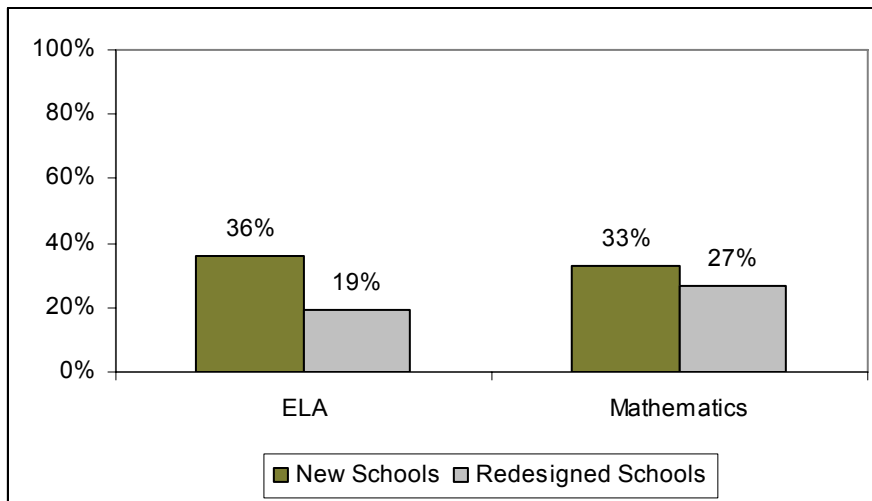
New schools are showing substantially higher attendance and progression rates than their respective district averages. Part of this phenomenon can be explained by the greater personalization of relationships between students and teachers in these schools. Because of their small size, new schools can set attendance policies that can be reinforced by greater teacher-student contact. Students in the schools also report that teachers are monitoring their progress closely and are frequently in touch with parents when the students are not performing well. The schools also benefit, of course, from the fact that students have chosen to attend, as opposed to being assigned to the school. Because of their choice, students are more likely to want to be part of the life of the school.

- ◆ **Students in foundation-supported schools generally have lower reading and mathematics achievement scores.** Only 36% of the new schools in our sample had average ELA scores that were higher than their respective district averages, and 33% of the new schools had mathematics scores that were higher than their district averages. The figures from the redesigned schools are not as strong as those from the new schools. Only 19% of the redesigned schools had average

ELA scores that were above their respective district averages, and only 27% had mathematics scores that were above their district averages.

In 2003-04, fewer than 40% of foundation-sponsored new and redesigned schools had average ELA scores that were higher than their district averages, and fewer than 30% had math scores that were higher than their district averages (Figure 3).

Figure 3. Percentage of Schools in Operation for at Least 2 Years With Average Achievement Scores Above Their Respective District Averages in ELA and Mathematics, by School Type, 2003-04



Sample. Total number of schools = 52 (new, 25; redesigned for ELA, 16; redesigned for mathematics, 11)
Data sources. Extant data from 11 districts

- ◆ Although achievement levels were lower in foundation-supported schools, when proficiency trends were examined over time, a majority of foundation-supported schools showed improvement between 2002 and 2005 relative to their district averages in ELA. Trends in school proficiency rates need to be viewed in the context of district trends, especially given the recent changes in assessments and proficiency criteria stimulated by implementation of the No Child Left Behind Act. Of the schools for which we could compare year-to-year changes in proficiency rates relative to their districts, roughly 60% made progress toward narrowing their proficiency gap in reading. In mathematics, the gains were not as consistent (Table 1).

Table 1. Percentages of Foundation-Supported Schools in Selected Districts That Made Gains in Proficiency Rates in ELA and Mathematics, Relative to Their Respective Districts, by School Type and Consecutive School Years

	2002-03 to 2003-04	2003-04 to 2004-05
ELA		
Redesigned Schools	66%	57%
New Schools	75%	66%
Mathematics		
Redesigned Schools	33%	57%
New Schools	80%	33%

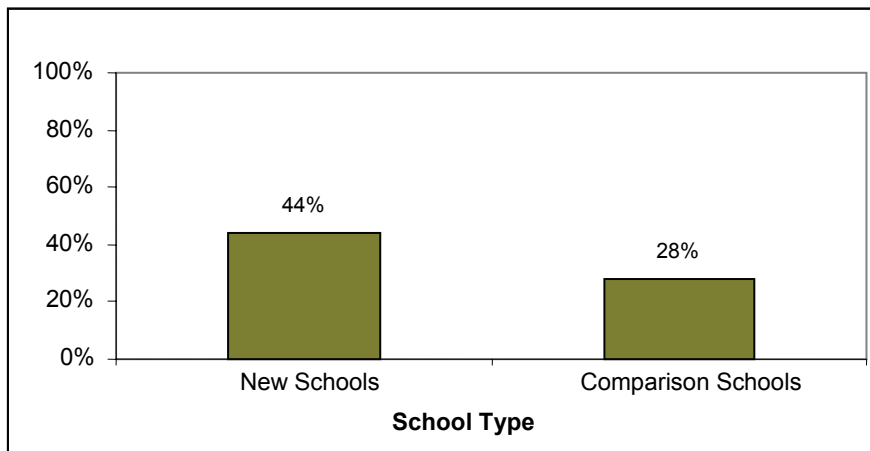
Sample. Number of redesigned schools = 10 (3 for 2002-03 to 2003-04 and 7 for 2003-04 to 2004-05); number of new schools = 8 (5 for 2002-03 to 2003-04 and 3 for 2003-04 to 2004-05)

Data sources. Foundation Strategy Group (2005), AIR/SRI achievement studies on five districts (AIR/SRI, 2005), and Standard and Poor's School Evaluation Services Web site: <http://www.schoolmatters.com>

- ◆ **Students in foundation-supported new high schools did higher-quality work in ELA classes than did students in traditional high schools without foundation ties.** Students' written work in new high schools showed greater evidence of knowledge construction, elaborated communication, and effective use of language conventions and resources than did written work in the nearby comparison schools.

Students in new schools were more likely than students in comparison schools to produce ELA work of moderate or substantial quality (Figure 4).

Figure 4. Proportion of Students' ELA Work Showing Moderate or Substantial Quality



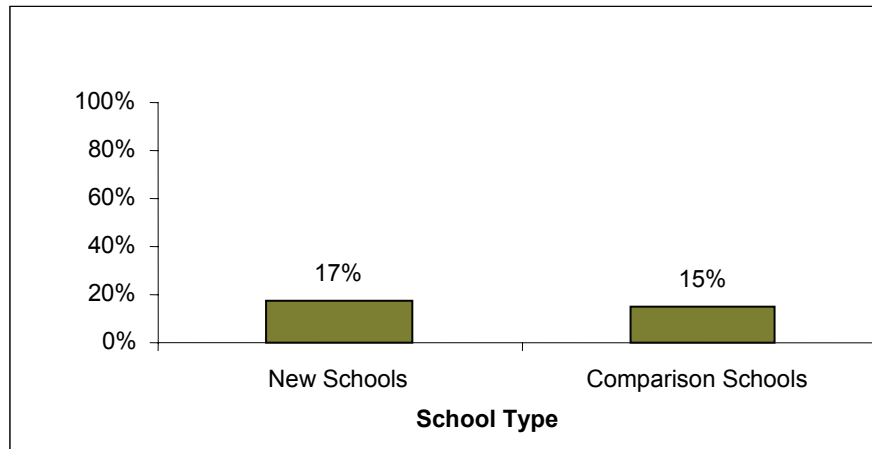
Data sources. Student work from 12 new schools (614 work samples from 346 students) and 8 comparison schools (284 work samples from 155 students)

- ◆ **In mathematics, on the other hand, fewer than one out of six pieces of student work were judged to show even moderate levels of conceptual understanding, procedural knowledge, problem solving and reasoning, and effective communication.** The quality of students' work in mathematics classes

in the foundation-supported new high schools was similar to that of students in other schools in the same localities.

Less than one fifth of mathematics student work showed moderate or substantial quality in both new and comparison schools (Figure 5).

Figure 5. Proportion of Students' Mathematics Work Showing Moderate or Substantial Quality



Data sources. Student work from 12 new schools (494 work samples from 278 students) and 8 comparison schools (293 work samples from 146 students)

Quality of Instruction

Students cannot be expected to perform at high levels, either on mandated tests or in their classwork, if their teachers are not giving assignments involving rigorous content. We analyzed the quality of the 10th-grade ELA and mathematics assignments that elicited the student work described above. Master teachers rated these assignments on the extent to which they provided students with rigorous and relevant learning opportunities. Table 2 presents criteria for instructional rigor and relevance that were used in this study.

Table 2. Criteria for Instructional Rigor and Relevance

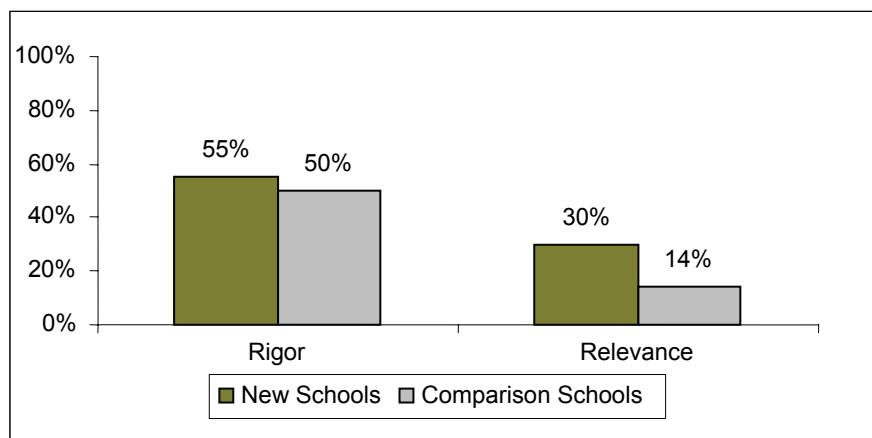
Rigor	Relevance
Extent to which assignments ask students to ◆ Move beyond the reproduction of information, taking what they already know and can do and using their knowledge and skills to create or explore new ideas. ◆ Demonstrate conceptual understanding of important content. ◆ Organize, interpret, evaluate, and synthesize information. ◆ Communicate clearly and well.	Extent to which assignments ask students to ◆ Address questions or problems with real-world applications. ◆ Make choices about what they will study and how they will study it. ◆ Take on plausible writing roles and submit their work to real audiences.

The analysis of the assignments teachers give in new small high schools compared with those given in nearby conventional large high schools found that:

- ◆ **Assignments in ELA in the foundation-supported new high schools emphasize real-world settings and give students a voice in shaping new learning opportunities.** The assignments that teachers gave in these schools were more relevant than classroom assignments in schools with similar student populations in the same or nearby districts. At the same time, the level of rigor in teachers' ELA assignments in the new schools was similar to the rigor of assignments given in comparison schools.

ELA assignments in new schools were more likely than assignments from comparison schools to have moderate or substantial relevance (Figure 6).

Figure 6. Proportion of ELA Assignments That Showed Moderate or Substantial Rigor and Relevance



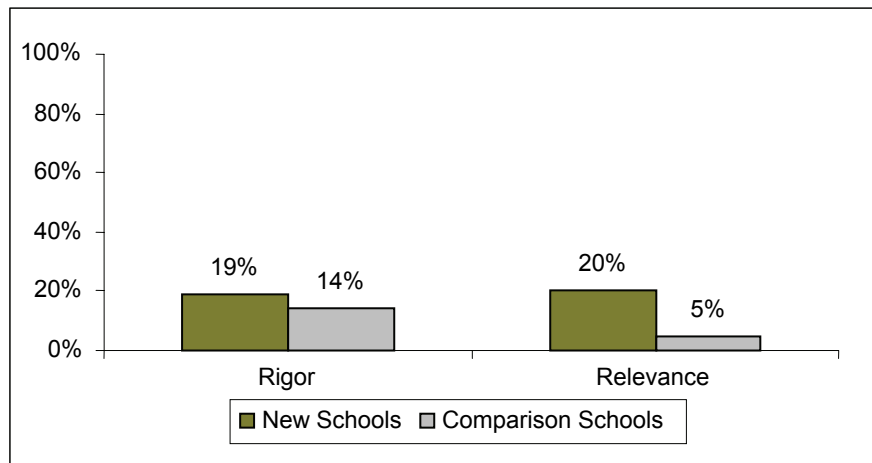
Data sources. Assignments from teachers in 12 new schools (331 assignments from 38 teachers) and 8 comparison schools (127 assignments from 19 teachers)

- ◆ **Most high school mathematics assignments lack rigor and relevance, whether they are from foundation-supported new high schools or from other high schools.** More of the assignments from the foundation's new high schools were rated as rigorous and relevant, but the differences from comparison schools in terms of the proportion of assignments with moderate or substantial rigor were not large.³

³ In *Rigor, Relevance, and Results: The Quality of Teacher Assignments and Student Work in New and Conventional High Schools* (Mitchell et al., 2005), we described an analysis that found that mathematics assignments in the new schools were less rigorous than those in a set of 16 large high schools in the state of Washington. Although this year's assignments came from the same set of new schools as was used in last year's analysis, the comparison schools are a new school sample, which consists of the schools that the students in the new schools would have attended if the new schools had not been formed. Also, a new set of assignments was collected from the new schools and combined with the assignments from the previous year. Although we have not made the comparison directly, the two analyses suggest that mathematics assignment rigor is lower in this new sample of comparison schools than in the Washington high schools. This year's analysis uses a more appropriate comparison group.

Few mathematics assignments from either new or comparison schools had moderate or substantial rigor or relevance, although assignments from new schools were more likely to be rigorous and relevant (Figure 7).

Figure 7. Proportion of Mathematics Assignments That Showed Moderate or Substantial Rigor and Relevance



Data sources. Assignments from teachers in 12 new schools (232 assignments from 33 teachers) and 8 comparison schools (135 assignments from 19 teachers)

- ◆ **Both the rigor and the relevance of assignments in ELA are associated with student production of higher-quality work.** When English teachers gave assignments that were challenging and involved or mimicked real-world problems and contexts, the quality of the resulting student work rose. In mathematics classrooms, however, it was the rigor of teacher assignments that predicted the quality of students' work. Analyses showed that relevance alone was not sufficient to trigger high-quality student work in mathematics. Students produced better mathematics work when the assignment was rigorous, which was a fairly infrequent occurrence in either new or comparison schools.
- ◆ **There are multiple obstacles to effective mathematics instruction in foundation-supported schools.** These include a lack of high-quality mathematics curricula appropriate for these schools' students, the need for teacher professional development and coaching in mathematics, weaknesses in the knowledge and skills that students brought with them to high school, and difficulty attracting certified teachers in mathematics.

Portfolios of High School Options

The foundation contends that students and families need choices among a variety of public school options in order to find high schools that meet students' differing needs and interests (Bill & Melinda Gates Foundation, 2005). Further, foundation staff believe that a supportive operating environment for school choice is unlikely to develop in

districts where students' choices are few. They expect the tipping point to be reached when about 30% of a community's schools are schools of choice. We examined the issue of school choice and support for new high schools in 17 school districts across the country for which we had evaluation data and where the foundation has invested in multiple schools, of which at least one had been operating for 3 or more years. We found that:

- ◆ **By school year 2004-05, 15 of the 17 districts in our study either met or exceeded the foundation's 30% target for schools of choice.** Students and families in these districts could choose from among several new free-standing high schools or small focused schools in large school buildings representing different educational philosophies, curricular emphases, and instructional models. Although we cannot attribute this trend entirely to the foundation's investments and advocacy, few observers doubt that the foundation has had an influence.
- ◆ **All of the districts had implemented some of the conditions that support new and reforming high schools, but none had all the needed supportive practices in place.** Our findings revealed that districts helped new and reforming schools by providing supports for teacher development and school operations; establishing rigorous academic standards; aligning standards, curricula, and assessments; and promoting the engagement of parents and communities in school improvement. Some districts also impeded the progress of these schools by cutting funding and restricting the schools' autonomy with respect to staff hiring and retention and budgeting.
- ◆ **The sustainability of new schools and the endurance of school redesigns are still in question.** In spring 2005, staff at 4 of the 12 third- and fourth-year new schools in our site visit sample expressed uncertainty about whether their schools could remain in operation. But, in fact, all of the new schools in our sample that had exhausted their 3 years of foundation funding were still open during the 2005-06 school year. Similarly, in spring 2005, faculty at two of the five large schools that had undergone redesign into SLCs were uncertain as to whether their SLC structure would survive. As it turned out, by fall 2005, one of these redesigned campuses was reconstituted by its district as a single large, comprehensive school, which it had been before receiving foundation support for reorganization.
- ◆ **Teacher turnover is a major problem in these schools.** In foundation-supported new schools, it was common for nearly a third of the teaching staff to turn over between the schools' inaugural and second years of operation. The same was true as schools moved into their third year.

Recommendations for Initiative Improvement

Drawing both on these findings and on our observations and documentation of the activities of the many organizations involved in the initiative, the evaluation team has formulated a number of recommendations that can be applied not only to this initiative but also to high school reform efforts more broadly. We note that these recommendations are inspired by our findings but go beyond our research results per se. They are the opinions of the authors and not necessarily the policy of the foundation.

- ◆ **Maintain the focus on student academic outcomes and on curriculum and instruction as the means to attaining those outcomes.** Increasingly, the foundation is stressing the importance of focusing on student outcomes, with concrete targets and a system for measuring progress toward them. The benefits of this strategy are that it keeps the focus (appropriately) on students and it offers reformers latitude in approaches—as long as schools and systems of schools are able to demonstrate strong outcomes. Such a strategy can be effective, however, only if a system is in place to monitor and track the student outcomes that matter. Agreement about outcome measures (e.g., proficiencies, graduation rates, college admission, demonstrated proficiency) and a system of tracking and reporting progress for every student should be prerequisites to receive support from the foundation. However, the foundation should not expect every school to develop and implement such a system independently. A centralized effort to provide tools and training is needed.
- ◆ **Exert leadership in aggregating and disseminating the most effective instructional resources for serving high-need secondary students.** High-end secondary curricula in the form of Advanced Placement and International Baccalaureate programs are available today and are being promoted in broad ranges of school settings. Many students, however, enter high school with skills that are two or more grade levels below their nominal grade placement. These students need additional opportunities to learn in order to equip themselves for success in grade-level course work. As noted previously, the new high schools are finding it particularly challenging to fill this need in mathematics.

Approaches that move students to grade-level proficiency (and beyond) and that can be used in classes where students have a wide range of skill levels are needed. The decentralized approach to curriculum and instruction that the initiative (and, some would say, the U.S. education system as a whole) has used to date has not been effective in helping students at foundation-supported high schools achieve at high levels in mathematics. The foundation has the opportunity to test the effectiveness of unproven but promising approaches and to disseminate the lessons learned from the more efficacious ones. The foundation also has the opportunity to exercise leadership by setting up a collection of those secondary education instructional materials and approaches that have the best evidence of effectiveness with traditionally underserved groups. Setting up the collection would entail convening a panel of experts to

establish criteria for high-quality materials and applying the criteria to identify the best available instructional resources. The panel and the foundation could invite submissions of materials along with evidence of effectiveness. Approaches and materials approved by the panel could be collected and synthesized in ways that could help schools and teacher training programs identify high-quality instructional resources that are (a) appropriate for their target student groups and (b) aligned with the schools' and programs' instructional philosophies. Schools and districts that receive foundation support could be urged to draw on this instructional resource library and be given technical assistance if they chose to implement one of the recommended instructional approaches. Once such approaches are implemented, the foundation could commission rigorous studies to examine the effectiveness of the approaches.

- ◆ **Explore alternative models for supporting teachers in schools with high-need students.** Given a strong system of personal and academic supports, many more students can succeed in completing high school ready for college or productive work. Providing that range of supports, however, is labor intensive, and we have seen the toll it can take on dedicated teachers in small high schools. We encourage the foundation to develop a strategy for tackling this problem head on—foundation-supported schools not only need to recruit many new teachers with both pedagogical and youth development skills, but they also need to provide a work environment conducive to retaining those teachers over multiple years. Human resource strategies for new high schools could be developed through a study panel or a targeted grants competition. Potential strategies include splitting responsibilities, as is done at one high school we visited in this study. Here, counselors handle students' nonacademic issues so that the teachers can focus on academics. Another strategy would be to provide teachers with additional salary, collaboration, and advancement opportunities as both recognition and incentive for doing an extraordinary job.
- ◆ **Design and provide a student data system that foundation-supported schools can use to track their students' performance and outcomes.** If the foundation wants to measure the initiative's progress with respect to the goal of producing college-ready high school graduates, then longitudinal student-level data will be needed. Currently, many of the foundation-supported schools and their districts do not have an effective system for keeping track of individual students and their outcomes after they leave a school. Rather than have each school or district develop its own system, the foundation should fund the design and implementation of a data system that all its funded schools would use for producing regular reports. This activity should include in-service training and technical assistance for school staff on how to use the system, not just for reporting to the foundation but also for monitoring and improving practices to attain better outcomes for all their students.

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- ◆ **Rethink the school redesign strategy.** Although there have been some isolated examples of apparently successful small schools emerging from the restructuring of a large high school, these have been the exception rather than the rule. On the whole, the data that we have for school redesign efforts are not encouraging. In many cases, the impetus for redesign has come from outside the school, and school staffs have been far from unanimous in their support for the effort. Wrangling over SLC definition and identity, logistics, and the subdivision of students and staff is time-consuming and divisive. Moreover, as noted in Shear et al. (2005), there is some indication that segregation by ability level, language proficiency, and so forth can be an unintended consequence of the redesign. All of these challenges suggest that the “bar” for funding future school redesign efforts should be set higher than it has been in the past. Evidence of school- and community-level impetus for the redesign, strong leadership from more than one individual, solid curriculum plans and resources, and a realistic plan for dealing with “legacy” students and teachers should be required elements of a redesign plan.
 - ◆ **Adjust the time frame for school support to match the pace of school establishment and change.** Support for individual high schools under this initiative was limited to 3 years. For a new school starting with a ninth grade and adding a single grade each year, the financial support and technical assistance provided by a foundation grantee ended before the school graduated its first senior class. Every year during which the school received support was a year in which it had a new grade level that the school had never before offered. Typically, neither staff nor programs nor curricula had reached a point of stability when the foundation funding ended. For schools undergoing redesign, both the experience of schools supported through this initiative and prior research suggest that 3 years is insufficient for deep-rooted change (Borman, 2005). We recommend that the foundation consider options for providing schools with 5 years of support, but not automatic support for such an extended term. The foundation could ask its grantees to submit evidence of individual schools’ progress after 2 to 3 years of operation, and this evidence could be weighed in determining whether an individual school warrants a fourth and fifth year of support.
 - ◆ **Continue to analyze and reflect on implementation and student outcome data at the initiative level.** As noted in Chapter 1 of the Final Report, the foundation’s education initiative has evolved in ways that have changed the mix of grants. These changes are leading to support for schools with a broader range of philosophies than was found among the early cohorts of foundation-supported new schools. The more teacher-directed approaches of organizations, such as the Knowledge Is Power Program or Chicago Charter School Foundation, may produce quite different outcomes than the radically student-centered approaches of the Big Picture Company or EdVisions. Our data suggest that

students' academic attitudes are correlated with the foundation's effective-school attributes, as measured by our implementation index, which is a composite of features compatible with the student-centered approaches pursued by the early grantee organizations (Shear et al., 2005). Independent analyses of student and school outcomes over the next 5 years are needed to ascertain whether the more traditional instruction and longer school days used by some of the new grantee organizations will produce the same attitudinal outcomes and whether these schools' academic outcomes will be better than or similar to those of the first set of new schools.

In addition, some of the more highly specified new school designs promoted by organizations with a national reach are at a point of maturity where a randomized field trial, permitting a rigorous test of the hypothesis that the school model causes better student outcomes, is feasible. Such an experiment would require the foundation's active involvement in recruiting districts and structuring school implementation grants to be compatible with the demands of random assignment. An experimental demonstration of a school model's effectiveness would stimulate districts and states around the country to emulate the approach. Thus, such an investment in research would complement the foundation's advocacy efforts. For the school redesign strategy, we have data for no more than 2 years following a school's reorganization. We have found that 2 years is too little time to effect dramatic change in a school's culture, instructional practices, and performance expectations, but we do not know what will happen over a longer term. More could be learned by following the small learning communities through their third and fourth years after redesign.

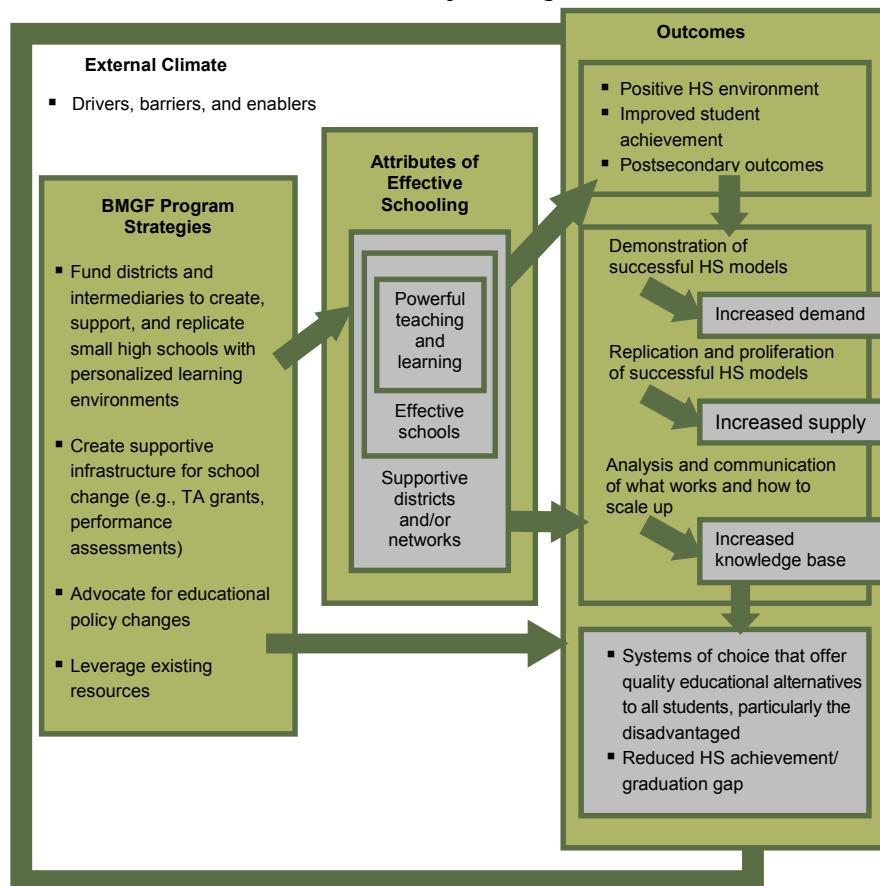
- ◆ **Clarify grantee roles.** As noted previously, some of the organizations receiving foundation grants began this work already possessing strong community ties and political influence in a local jurisdiction. Some had experience starting a model school or consulting on school redesign, and some had a particular instructional model and associated resources (AIR/SRI, 2004). Few if any of the grantee organizations possessed all of these capacities, yet fundamentally changing high school education in a locality requires all of them. We encourage the foundation to think about distinct types of grantee organizations and to fund consortia of institutions that collectively offer all the needed expertise (e.g., a strong local partner, a school technical assistance provider, and a partner with national expertise in curriculum and instruction), rather than funding individual organizations. This consortium approach would be likely to entail staged funding, with planning and capacity building in phase-one grants. A phased grant structure would also provide time for building the kinds of partnerships with local institutions of higher education, internship sites, libraries, and museums needed to round out the resources available to small schools with limited budgets. It would also permit more realistic timetables for recruiting school staff, locating school sites, and developing programs and curricula.

Finally, the extra time would facilitate the recruitment of local individuals with influence who are willing to champion the new schools and protect them from potentially harmful actions on the part of school boards, district offices, and other organizations.

About the Evaluation

This evaluation and its research questions are based on the foundation's theory of change (Weiss, 1995; Shadish, 1991): an overall model of the vision, goals, strategies, and assumptions of the initiative. The theory was articulated during a set of facilitated meetings with foundation officials in 2002. The theory was revised annually to keep pace with the strategic evolution of the initiative and lessons learned over time. Figure 8 depicts the basic elements of the theory, showing (a) program funding strategies; (b) schools and systems with particular attributes that the foundation seeks to promote through those strategies; and (c) intended results, including both outcomes for students in funded schools and the proliferation of high-quality systems of choice throughout the nation. The theory of change is described more completely in Shear and Smerdon (2003).

Figure 8. Basic Elements of the Foundation's Theory of Change



The evaluation draws on five major types of data: (a) survey data provided by students, teachers, and principals; (b) qualitative data collected through school site visits involving classroom observations, principal and teacher interviews, and student and parent focus groups; (c) qualitative data collected through interviews with staff from school districts and organizations receiving foundation grants; (d) independent ratings of teacher assignments and of the student work done in response to those assignments; and (e) district-maintained enrollment, attendance, grade progression, and test score data obtained for all high schools in large districts.

Our analyses are based on data from preredesign, redesigned, and new schools. Data collection details are outlined in Table 3.

Table 3. Data Collection Methods

School Type	Data Collection Method	Number of Unique Schools in Sample	Years of Data Collection
Comparison schools	Teacher assignments/student work	8	2003-04
New schools	Student surveys	34	2002-05
	Site visits	17	2002-05
	Demographic surveys	34	2002-05
	Teacher assignments/student work	12	2003-05
	District interviews	11	2002-05
	District data	8	2002-05
Schools prior to redesign	Student surveys	12	2002
	Site visits	10	2002-05
	Demographic surveys	16	2002-05
	Teacher assignments/student work	11	2002-04
	District interviews	9	2002-05
	District data	4	2002-05
Redesigned schools	Student surveys	27	2004
	Site visits	8	2003-05
	Demographic surveys	38	2004-05
	Teacher assignments/ student work	8	2005-06
	District interviews	7	2002-05
	District data	3	2002-05

Note. The 12 large schools surveyed in 2002 prior to redesign yielded 27 redesigned schools in 2004. For school specifics, see the technical appendix in *Evaluation of the Bill & Melinda Gates Foundation's High School Grants Program: 2001–2005 Final Report*.

The findings in this report should be considered in light of the amount of time required for significant education reform. The schools undergoing redesign were seeking a fundamental shift in the thinking, expectations, and practices of students and teachers. Prior research suggests that such a change in mind-set and practice can take 5 years or more to implement deeply (Berends, Bodilly, & Kirby, 2002; Borman, 2005). New schools had the advantage of being able to recruit staff and students who were attracted to a distinctive vision of a rigorous high school, but most dealt with the complexity of getting a school off the ground quickly by opening with a single grade level—typically a

class of ninth graders—resulting in an extended timeline for implementing a full 4-year high school program. Helping students—many of whom enter high school with skills three or four grade levels below their nominal grade—become college ready is a major challenge, and one not typically surmounted in 1 or 2 years. Further, with shoestring funding based on small enrollments and before having a graduating class that could establish a record of college admission, many of the new schools have struggled to build a reputation for success.

Readers of this report also should keep in mind the evolving nature of the foundation's education strategy. The school samples used in data analyses reported here are a fairly even balance between schools started under the early grants and those started or redesigned later in the initiative. Analyses involving schools that have been open for 4 years, however, draw on that portion of the school sample developed under the early grants. Another important distinction to keep in mind is the difference in governance structure for the various school types. Schools planning redesign and the entities resulting from their restructuring are all district-run schools, whereas the majority (though not all) of the new schools are operated as charter schools.

Finally, readers should note that although this report and its predecessors provide information on trends in the foundation-supported schools, the existence of these trends does not enable conclusive claims of causality. The complexities of the foundation's initiative and of local circumstances at each school should always be kept in mind. Readers should use this report as a source of statistically informed, sound analyses of the trends at the schools and reasoned, possible explanations underlying the trends.

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